

# City of Hamilton PUBLIC WORKS COMMITTEE

**Meeting #**: 18-007

**Date:** May 14, 2018

**Time:** 9:30 a.m.

**Location:** Council Chambers, Hamilton City Hall

71 Main Street West

Lauri Leduc, Legislative Coordinator (905) 546-2424 ext. 4102

			Pages
1.	APP	ROVAL OF AGENDA	
	(Adde	ed Items, if applicable, will be noted with *)	
2.	DEC	LARATIONS OF INTEREST	
3.	APP	ROVAL OF MINUTES OF PREVIOUS MEETING	
	3.1	April 30, 2018	3
4.	DELE	EGATION REQUESTS	
5.	CON	SENT ITEMS	
	5.1	Intersection Control List (PW18001(c)) (Wards 4, 8, 9 and 12)	17
	5.2	Minutes 18-001 of the Accessible Transit Services Review Sub- Committee - January 18, 2018	30
	5.3	Waterford Park Redevelopment - 10 Waterford Crescent, Hamilton (PW18040) (Ward 11)	34
	5.4	2017 Annual Energy Report (City Wide) (PW18041)	42
	5.5	Everyone Rides Initiative Pilot Project (City Wide) (PED18108) (Outstanding Business List)	87

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- 6.1 Alan Hansell, Stewards of Cootes Watershed, respecting an Update on the Group's work/activities (no copy)
- 6.2 James Lafferty respecting Damage from Truck traffic on Corlis Road in Binbrook
- 7. STAFF PRESENTATIONS
- 8. DISCUSSION ITEMS
- 9. MOTIONS
  - 9.1 Investment Stabilization Reserve Funded Projects Athenia Drive (Ward 99 9)
- 10. NOTICES OF MOTION
- 11. GENERAL INFORMATION / OTHER BUSINESS
  - 11.1 Changes to the Outstanding Business List
    - 11.1.a Item considered complete and to be removed:
      - 11.1.a.a Everyone Rides Initiative Pilot Project (Item 5.5 of today's agenda)
- 12. PRIVATE AND CONFIDENTIAL
- 13. ADJOURNMENT



### **PUBLIC WORKS COMMITTEE**

### **MINUTES 18-006**

9:30 a.m.
Monday, April 30, 2018
Council Chambers
Hamilton City Hall
71 Main Street West

**Present:** Councillor L. Ferguson (Chair)

Councillor T. Jackson (Vice Chair)

Councillors C. Collins, S. Merulla, R. Pasuta, A. VanderBeek,

T. Whitehead

**Absent with Regrets:** Councillor D. Conley - Illness

### THE FOLLOWING ITEMS WERE REFERRED TO COUNCIL FOR CONSIDERATION:

1. Road Safety Campaign – Speeding and Aggressive Driving/Road Safety Pledge (PW17045(a)) (City Wide) (Item 5.1)

### (VanderBeek/Collins)

That Report PW17045(a) respecting the Road Safety Campaign – Speeding and Aggressive Driving/Road Safety Pledge, be received.

**CARRIED** 

2. Delineated Bicycle Lane on the Claremont Access (Wards 2, 7 and 8) (PED18097) (Item 5.2)

### (VanderBeek/Jackson)

That Report PED18097 respecting a Delineated Bicycle Lane on the Claremont Access, be received.

**CARRIED** 

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# 3. Staffing Changes to Address Solid Waste Management By-law Enforcement and Illegal Dumping (PW18033/PED18092) (City Wide) (Item 8.1)

### (Jackson/Whitehead)

That three full-time equivalent (FTE) Municipal Law Enforcement Officer positions at the cost of \$305,780 be transferred from the Municipal Law Enforcement Section, Licensing and By-Law Services Division, Planning and Economic Development Department to the Waste Collection Section, Environmental Services Division, Public Works Department to provide enhanced enforcement of the Solid Waste Management By-law 09-067 and address illegal dumping activities on public property.

**CARRIED** 

### 4. Over the Road Banner Program (PW18034/CMO18012) (City Wide) (Item 8.2)

### (Whitehead/Collins)

- (a) That at this time the Roads & Traffic Division of the Public Works Department not proceed with the repair or replacement of the "over the road" banner across Main Street West; fronting City Hall;
- (b) That staff report back on a digital replacement program for the traditional "over the road" banner program for 2019;
- (c) That alternative solutions be utilized for the remainder of the 2018 banner program at the Main Street fronting City Hall location and King Street, Dundas location.

CARRIED

### 5. Scenic Drive Repairs (Item 9.1)

#### (Whitehead/Merulla)

WHEREAS, modern winters appear to have accelerated the deterioration of Scenic Drive, from West 32nd to Garth Street, and Denlow Avenue, from Scenic Drive to Garth Street as a result of increased frequency of freeze/thaw cycles and more extreme variability of temperatures; and,

WHEREAS, we have current competitively bid projects and prices available as a base for comparison and negotiation that can be used to ensure value for money on the award of the proposed works, and,

WHEREAS, given the current resources along with the time needed to complete a tender and award process, road improvements cannot be addressed within our normal process manner during the 2018 construction process;

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#### THEREFORE BE IT RESOLVED:

- (a) That Scenic Drive, from West 32nd to Garth Street, and Denlow Avenue, from Scenic Drive to Garth Street, at an estimated cost of \$900,000, be rehabilitated using asset preservation practices, with the work to include the rehabilitation of the existing asphalt with repaving; and,
- (b) That the Ward 8 allocation, in the amount of \$900,000 (Project ID 4031811808) previously approved from the Investment Stabilization Reserve (No. 112300), be utilized to fund the asset preservation of Scenic Drive, from West 32nd to Garth Street, and Denlow Avenue, from Scenic Drive to Garth Street, and,
- (c) That upon project completion, should any surplus funding be generated, that the same be transferred to the Ward 8 road maintenance being project no. 4031611608, and,
- (d) That the General Manager of Public Works be authorized to procure all or some of the proposed works identified through Procurement Policy #11 Non-Competitive Procurements, where deemed appropriate, to expedite the works for this construction season.

**CARRIED** 

# 6. Area Rating Special Capital Re-Investment Reserve Funding Projects (Item 9.2)

### (Collins/Merulla)

WHEREAS, modern winters appear to have accelerated the deterioration of roads in the Davis Creek Neighbourhood, as a result of increased frequency of freeze/thaw cycles and more extreme variability of temperatures; and,

WHEREAS, the sidewalks of Fairway Drive, Nicklaus Drive, St. Andrews Drive, Elford Crescent, Wedgewood Avenue, Glen Manor Street, Jennifer Court, Palmerston Place, Putting Place and Chipping Place were replaced in 2017 and funded through the 2017 Ward 5 Area Rating Reserve Account; and,

WHEREAS, we have current competitively bid projects and prices available as a base for comparison and negotiation that can be used to ensure value for money on the award of the proposed works, and,

WHEREAS, given the current resources along with the time needed to complete a tender and award process, road improvements cannot be addressed within our normal process manner during the 2018 construction process;

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#### THEREFORE BE IT RESOLVED:

- (a) That St. Andrews Drive, Fairway Drive, Glen Manor Street, Elford Crescent, Jennifer Court, Palmerston Place, Chipping Place, Wedgewood Avenue, Putting Place and Nicklaus Drive, at an estimated cost of \$1.33M, be rehabilitated using asset preservation practices, with the work to include the rehabilitation of the existing asphalt with repaying; and,
- (b) That \$430,000 from Ward 5 Area Rating Reserve # 108055 be utilized to fund the asset preservation of the aforementioned streets, and,
- (c) That the Ward 5 allocation, in the amount of \$900,000 (Project ID 4031811805) previously approved from the Investment Stabilization Reserve (No. 112300), be utilized to fund the asset preservation of various Davis Creek Neighbourhood streets, and,
- (d) That upon project completion, should any surplus funding be generated, that the same be transferred to the Ward 5 road maintenance being project no. 4031611605, and,
- (e) That the General Manager of Public Works be authorized to procure all or some of the proposed works identified through Procurement Policy #11 Non-Competitive Procurements, where deemed appropriate, to expedite the works for this construction season.

CARRIED

### 7. Meadowbrook Drive Repairs (Item 9.3)

### (Ferguson/Merulla)

WHEREAS, modern winters appear to have accelerated the deterioration of Meadowbrook Drive, from Wilson Street to Jerseyville Road, as a result of increased frequency of freeze/thaw cycles and more extreme variability of temperatures; and,

WHEREAS, we have current competitively bid projects and prices available as a base for comparison and negotiation that can be used to ensure value for money on the award of the proposed works, and,

WHEREAS, given the current resources along with the time needed to complete a tender and award process, road improvements cannot be addressed within our normal process manner during the 2018 construction process;

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#### THEREFORE BE IT RESOLVED:

- (a) That Meadowbrook Drive, at an estimated cost of \$900,000, be rehabilitated using asset preservation practices, with the work to include the rehabilitation of the existing asphalt with repaying; and,
- (b) That the Ward 12 allocation, in the amount of \$900,000 (Project ID 4031811812) previously approved from the Investment Stabilization Reserve (No. 112300), be utilized to fund the asset preservation of Meadowbrook Drive, and,
- (c) That upon project completion, should any surplus funding be generated, that the same be transferred to the Ward 12 road maintenance being project no. 4031611612, and,
- (d) That the General Manager of Public Works be authorized to procure all or some of the proposed works identified through Procurement Policy #11 Non-Competitive Procurements, where deemed appropriate, to expedite the works for this construction season.

**CARRIED** 

### 8. Emergency Shoreline Protection Works (Added Item 10.1)

### (Collins/Merulla)

WHEREAS, the waterfront trails at Bayfront to Cootes and at Confederation Beach Park were heavily damaged during extreme storm events in May 2017, requiring temporary closures and repair works, and;

WHEREAS, staff have been working to design and install shoreline protection measures in two of three badly affected areas in Confederation Beach Park, and;

WHEREAS, the recent storm of April 14, 15, and 16, 2018 caused further damage to the beach and trail at Confederation Beach Park, and;

WHEREAS, under the recently announced Canada-Ontario Bilateral Infrastructure Agreement, the Green Infrastructure Stream, will support projects that enable greater adaptation and resilience to the impacts of climate change and climate-related disaster mitigation, and;

WHEREAS, the operating and capital budgets of the Parks Section of Public Works is not established to address emergency works of the magnitude required in this matter to address concerns for public safety and protection of property;

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#### THEREFORE BE IT RESOLVED:

- (a) That the costs for design and construction of emergency shoreline protection works, to address 2017 and 2018 damage, at Confederation Beach Park, valued at \$875,000, be funded from the unallocated capital reserve;
- (b) That the Environmental Services staff report back to Public Works Committee on the options, costs and timing to address the 2017 and 2018 damage shoreline erosion and trail repair Bayfront Park;
- (c) That Environmental Services staff undertake a comprehensive study of the Lake Ontario and Hamilton Harbour shorelines, from the lift bridge to the eastern boundary of Confederation Park, and the shoreline from Bayfront Park to Cootes, to determine options (including hard protection measures) and costs to protect City lands and residents from extreme storm events, and that the costs to undertake the study, estimated at \$300,000, be funded from the unallocated capital reserve; and
- (d) That staff report to the Public Works Committee in regards to the alignment of the projects that emerge from the comprehensive study of the Lake Ontario and Hamilton Harbour shorelines, from the lift bridge to the eastern boundary of Confederation Park, and the shoreline from Bayfront Park to Cootes, to the Green Infrastructure stream; and
- (e) That staff report back on options and costs for item (c) and possible external funding sources, such as the Green Infrastructure Stream.

**CARRIED** 

### 9. Capital Repairs to Veevers House (EcoHouse) (Ward 5) (Added Item 10.2)

#### (Collins/Merulla)

That the capital repairs totalling \$9,033.22 to the City owned building 'Veevers House' located at 22 Veevers Drive be funded from Ward 5 area rating account 10805.

CARRIED

### 10. Ward 2 Investment Stabilization Reserve Fund (Added Item 10.3)

### (Merulla/Collins)

WHEREAS, modern winters appear to have accelerated the deterioration of Hunter Street, from James Street to Queen Street, Hess Street South, from Hunter to Main Street West, and Aberdeen Avenue, from Queen Street to Bay Street South, as a result of increased frequency of freeze/thaw cycles and more extreme variability of temperatures; and,

WHEREAS, we have current competitively bid projects and prices available as a base for comparison and negotiation that can be used to ensure value for money on the award of the proposed works; and,

WHEREAS, given the current resources along with the time needed to complete a tender and award process, road improvements cannot be addressed within our normal process manner during the 2018 construction process,

#### THEREFORE BE IT RESOLVED:

- (a) That Hunter Street, at an estimated cost of \$620,000, Hess Street South, at an estimated cost of \$130,000, and Aberdeen Avenue, at an estimated cost of \$280,000 be rehabilitated using asset preservation practices, with the work to include the rehabilitation of the existing asphalt with repaying
- (b) That the Ward 2 allocation, in the amount of \$900,000 (Project ID 4031811802) previously approved from the Investment Stabilization Reserve (No.112300), be utilized to fund the asset preservation of Hunter Street, from James Street to Queen Street, and Aberdeen Avenue, from Queen Street to Bay Street
- (c) That the Ward 2 Road Maintenance allocation, in the amount of \$130,000 (Project ID 4031611602), be utilized to fund the asset preservation of Hess Street, from Hunter Street to Main Street
- (d) That upon project completion, should any surplus funding be generated, that the same be transferred to the Ward 2 road maintenance being project no. 4031611602
- (e) That the General Manager of Public Works be authorized to procure all or some of the proposed works identified through Procurement Policy #11 Non-Competitive Procurements, where deemed appropriate, to expedite the works for this construction season.

**CARRIED** 

11. Amendment to Item 8.5 of the Public Works Committee Report 17-013, respecting Report PW17080 (Ward 1)- Aviary, 85 Oak Knoll Drive, Churchill Park (Added Item 10.5)

### (Jackson/Merulla)

WHEREAS, at its meeting of November 22, 2017, Council approved Item 8.5 of the Public Works Committee Report 17-013 as amended; and,

WHEREAS, the Friends of the Aviary have made good progress in its recent organizational efforts; and,

WHEREAS, the Friends of the Aviary have requested additional time to confirm a new location for the birds of the Aviary and report back to Public Works Committee,

### THEREFORE BE IT RESOLVED:

- (a) That sub-section (b) to Item 8.5 of the Public Works Committee Report 17-013, respecting Report PW17080 (Ward 1)- Aviary, 85 Oak Knoll Drive, Churchill Park be amended by deleting the words "no later than June 30, 2018" and replacing them with the words "at the first meeting in February 2019" and by deleting the words "November 22, 2018" and replacing them with the words "July 11, 2019" to read as follows:
  - (b) That the Friends of the Aviary (FOTA) work with Animal Control Section, Building and Licensing Division, and a licensed Veterinarian to commence immediate efforts to find an alternate location for the birds, and to report back no later than June 30, 2018 at the first meeting in February 2019, to Public Works Committee to confirm the new location for the birds. The move to an alternate location must be completed no later than November 22, 2018 July 11, 2019;
- (b) That sub-section (d) to Item 8.5 of the Public Works Committee Report 17-013, respecting Report PW17080 (Ward 1)- Aviary, 85 Oak Knoll Drive, Churchill Park be amended by deleting the words "November 23, 2018" and replacing them with the words "July 12, 2019", to read as follows:
  - (d) That with FOTA confirming a new location for the birds as per recommendation (b) that FOTA assume ownership of the existing birds at the Aviary on November 23, 2018 July 12, 2019 5:00 PM for a fee of \$1.00, and that the Director of Environmental Services Division be authorized to take all necessary steps to transfer ownership of the birds.
- (c) That sub-section (e) to Item 8.5 of the PW Committee Report 17-013, respecting Report PW 17080 (Ward 1) Aviary, 85 Oak Knoll Drive, Churchill Park, be amended by deleting the words "by June 30, 2018 5:00 p.m." and replacing them with the words "as per sub-section (b) to Item 8.5 of the PW Committee Report 17-013", as amended, to read as follows:
  - (e) That should the Friends of the Aviary not be successful in confirming an alternate location for the birds as per sub-section (b) of the PW Committee Report 17-013, as amended, that that the Animal Control Section, Building and Licensing Division, and a licensed Veterinarian commence relocating the birds, and that the Director of Environmental Services Division be authorized to take all necessary steps to terminate the new agreement between the City of Hamilton and FOTA.

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**CARRIED** 

#### FOR INFORMATION:

### (a) APPROVAL OF THE AGENDA (Item 1)

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

### 1. ADDED DELEGATION REQUEST (Item 4)

4.2 James Lafferty respecting Damage from Truck Traffic on Corlis Road (for a future meeting).

### 2. ADDED CONSENT ITEM (Item 5)

5.3 Correspondence from Melanie Suchecki, Board Chair, Friends of the Aviary, respecting a Request for an Extension to find new space for the birds.

### 3. REVISED MOTIONS (Item 9)

Revisions to account numbers and project IDs were made to the following motions:

- 9.1 Scenic Drive Repairs
- 9.2 Area Rating Special Capital Re-Investment Reserve Funding Projects (Ward 5)
- 9.3 Meadowbrook Drive Repairs

### 4. ADDED NOTICES OF MOTION (Item 10)

- 10.1 Emergency Shoreline Protection Works
- 10.2 Capital Repairs to Veevers House (EcoHouse) (Ward 5)
- 10.3 Notice of Motion Ward 2 Investment Stabilization Reserve Funded Projects
- 10.4 Amendment to Item 8.5 of Public Works Committee Report 17-013 respecting Report PW17080 (Ward 1) Aviary, 85 Oak Knoll Drive, Churchill Park

### (Whitehead/VanderBeek)

That the Agenda for the April 30, 2018 meeting of the Public Works Committee be approved, as amended.

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**CARRIED** 

(b) DECLARATIONS OF INTEREST (Item 2)

There were no declarations of interest.

- (c) APPROVAL OF MINUTES OF PREVIOUS MEETING (Item 3)
  - (i) April 16, 2018 (Item 3.1)

### (VanderBeek/Whitehead)

That the Minutes of the April 16, 2018 Public Works Committee meeting be approved, as presented.

**CARRIED** 

- (d) DELEGATION REQUEST (Item 4)
  - (i) Alan Hansell, Stewards of Cootes Watershed, respecting an update to the Public Works Committee on their work (Item 4.1)

### (Whitehead/VanderBeek)

That the delegation request from Alan Hansell, Stewards of Cootes Watershed, respecting an update to the Public Works Committee on their work, be approved for a future meeting.

CARRIED

(ii) James Lafferty respecting Damage from Truck Traffic on Corlis Road in Binbrook (Added Item 4.2)

### (Collins/Merulla)

That the delegation request from James Lafferty respecting Damage from Truck Traffic on Corlis Road in Binbrook, be approved for a future meeting.

CARRIED

- (e) CONSENT ITEMS (Item 5)
  - (i) Correspondence from Melanie Suchecki, Board Chair, Friends of the Aviary, respecting a Request for an Extension to find new space for the birds (Added Item 5.3)

### (Jackson/Merulla)

That the Correspondence from Melanie Suchecki, Board Chair, Friends of the Aviary, respecting a Request for an Extension to find new space for the birds, be referred to the consideration of Item 10.4 – being an Amendment to Item 8.5 of Public Works Committee Report 17-013 respecting Report PW17080 (Ward 1) – Aviary, 85 Oak Knoll Drive, Churchill Park.

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**CARRIED** 

### (f) PUBLIC HEARINGS / DELEGATIONS (Item 6)

(i) Michael Gemmell, Executive Director, Green Venture, respecting an Update on Green Venture's Outreach and Education work completed on behalf of the City of Hamilton (Item 6.1)

Mr. Michael Gemmell, Executive Director of Green Venture, provided the Committee with an update about Green Venture's Outreach and Education work, with the aid of a PowerPoint presentation.

A copy of the presentation has been retained for the official record and is available through the Office of the City Clerk and on www.hamilton.ca.

### (Collins/VanderBeek)

That the delegation from Michael Gemmell, Executive Director, Green Venture, respecting an Update on Green Venture's Outreach and Education work completed on behalf of the City of Hamilton, be received.

**CARRIED** 

(ii) Julie Gordon respecting Opposition to Aerial Spraying to combat Gypsy Moths (Item 6.2)

Ms. Julie Gordon addressed the Committee respecting her opposition to the aerial spraying to combat Gypsy Moths.

### (VanderBeek/Whitehead)

That the delegation from Julie Gordon respecting Opposition to Aerial Spraying to combat Gypsy Moths, be received.

**CARRIED** 

### (g) STAFF PRESENTATIONS (Item 7)

(i) Recycling Market Impacts on the Hamilton Blue Box Program (Item 7.1)

Mr. Emil Prpic, Manager of Recycling and Waste Disposal, addressed the Committee respecting the impact that the recycling market has on the Hamilton Blue Box Program, with the aid of a PowerPoint presentation.

A copy of the presentation has been retained for the official record and is available through the Office of the City Clerk and on www.hamilton.ca.

### (Collins/Merulla)

That the presentation respecting Recycling Market Impacts on the Hamilton Blue Box Program, be received.

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**CARRIED** 

### (h) MOTIONS (Item 9)

### (i) Meadowbrook Drive Repairs (Item 9.3)

Councillor Ferguson relinquished the Chair to Councillor Jackson in order to introduce a motion respecting Meadowbrook Drive Repairs.

For disposition of this matter refer to Item 7.

Councillor Ferguson assumed the Chair.

### (i) NOTICES OF MOTION (Item 10)

### (i) Emergency Shoreline Protection Works (Added Item 10.1)

Councillor Collins introduced a Notice of Motion respecting Emergency Shoreline Protection Works.

### (Collins/Merulla)

That the Rules of Order be waived to allow for the introduction of a motion respecting Emergency Shoreline Protection Works.

**CARRIED** 

For disposition of this matter refer to Item 8.

# (ii) Capital Repairs to Veevers House (EcoHouse) (Ward 5) (Added Item 10.2)

Councillor Collins introduced a Notice of Motion respecting Capital Repairs to Veevers House (EcoHouse).

### (Collins/Merulla)

That the Rules of Order be waived to allow for the introduction of a motion respecting Capital Repairs to Veevers House (EcoHouse).

**CARRIED** 

For disposition of this matter refer to Item 9.

# (iii) Ward 2 Investment Stabilization Reserve Funded Projects (Added Item 10.3)

Councillor Merulla introduced a Notice of Motion respecting Ward 2 Investment Stabilization Reserve Funded Projects.

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### (Merulla/Collins)

That the Rules of Order be waived to allow for the introduction of a motion respecting Ward 2 Investment Stabilization Reserve Funded Projects.

CARRIED

For disposition of this matter refer to Item 10.

- (iv) Amendment to Item 8.5 of Public Works committee Report 17-013 respecting Report PW17080 (Ward 1) Aviary, 85 Oak Knoll Drive, Churchill Park (Added Item 10.4)
  - (i) Correspondence from Melanie Suchecki, Board Chair, Friends of the Aviary, respecting a Request for an Extension to find new space for the birds (Added Item 5.3)

That the Correspondence from Melanie Suchecki, Board Chair, Friends of the Aviary, respecting a Request for an Extension to find new space for the birds, be received.

CARRIED

(ii) Amendment to Item 8.5 of Public Works committee Report 17-013 respecting Report PW17080 (Ward 1) – Aviary, 85 Oak Knoll Drive, Churchill Park (Added Item 10.4)

Councillor Jackson introduced a Notice of Motion respecting Amendment to Item 8.5 of Public Works committee Report 17-013 respecting Report PW17080 (Ward 1) – Aviary, 85 Oak Knoll Drive, Churchill Park.

### (Jackson/Merulla)

That the Rules of Order be waived to allow for the introduction of a motion respecting an Amendment to Item 8.5 of Public Works committee Report 17-013 respecting Report PW17080 (Ward 1) – Aviary, 85 Oak Knoll Drive, Churchill Park.

**CARRIED** 

For disposition of this matter refer to Item 11.

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

(i) Update from the General Manager of Public Works respecting Items/Matters of Interest to the Committee (Item 11.1)

There was no update to provide at this time.

- (ii) Outstanding Business List (Item 11.2)
  - (a) Transfer of Item (Item 11.2(a))

Mandatory Drive Thru Garbage Containers

### (Merulla/Collins)

That the matter respecting Mandatory Drive Thru Garbage Containers remain with the Public Works Committee.

**CARRIED** 

### (k) ADJOURNMENT (Item 13)

### (Whitehead/Collins)

That there being no further business, the Public Works Committee be adjourned at 11:34 a.m.

**CARRIED** 

Respectfully submitted,

Councillor L. Ferguson, Chair Public Works Committee

Lauri Leduc Legislative Coordinator Office of the City Clerk

### Martin White, Extension 4345 PW18001c

# INTERSECTION CONTROL LIST Public Works Committee – May 14, 2018

# PUBLIC WORKS DEPARTMENT Roads and Traffic Traffic Operations & Engineering Section

### **RECOMMENDATION**

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

	Interse	-	Control ection	Class	Comments / Petition Wa					
	Street 1 Street 2		Existing	Requested						
	Section "A" Ancaster									
(a)	Cooley Grove	Robertson Road	NC	NB	Α	Plan of New Subdivision	12			
(b)	Beasley Grove	Robertson Road	NC	NB	Α	Plan of New Subdivision	12			
(c)	Lightfeather Place	Grandell Drive	NC	WB	Α	Plan of New Subdivision	12			
(d)	Whittington Drive	Grandell Drive	NC	WB	Α	Plan of New Subdivision	12			
(e)	Whittington Drive	Robarts Drive	NC	EB	Α	Plan of New Subdivision	12			
(f)	Findlay Drive	Grandell Drive	NC	WB	Α	Plan of New Subdivision	12			
(g)	Findlay Drive	Robarts Drive	NC	EB	Α	Plan of New Subdivision	12			
(h)	Morrison Drive	Robarts Drive	NC	EB	Α	Plan of New Subdivision	12			
(i)	Morrison Drive	Grandell Drive	NC	WB	Α	Plan of New Subdivision	12			
(j)	Robarts Drive	Lightfeather Place	NC	NB	Α	Plan of New Subdivision	12			
(k)	Robarts Drive	Robertson Road	NC	SB	Α	Plan of New Subdivision	12			
(l)	Callon Drive	Raymond Road	NC	WB	Α	Plan of New Subdivision	12			
(m)	Callon Drive	Heming Trail	NC	EB	Α	Plan of New Subdivision	12			
(n)	Heming Trail	Raymond Road	NC	WB	А	Plan of New Subdivision	12			

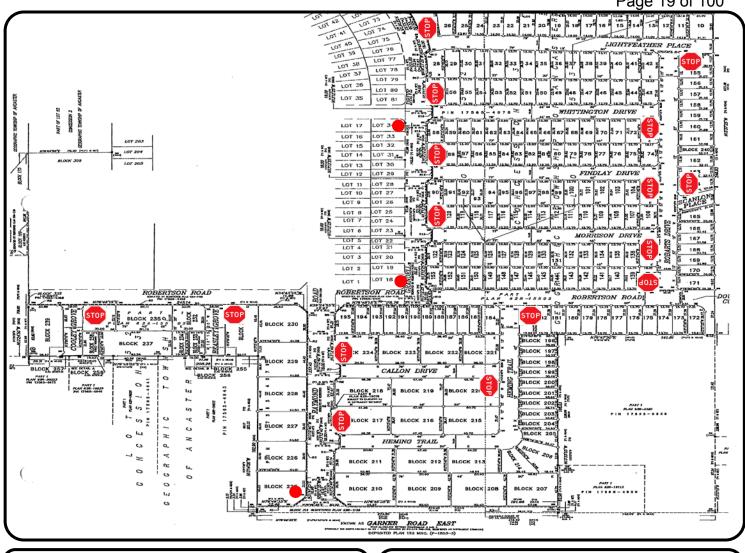
# Martin White, Extension 4345 PW18001c

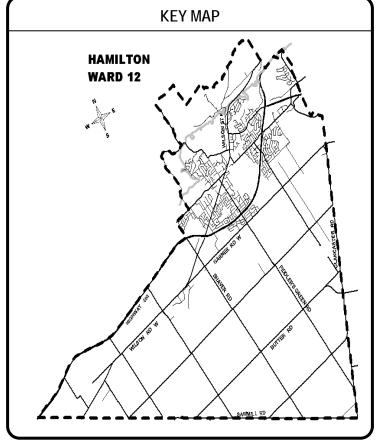
			•			T W 1000	,,,,
	Interse	ection		Stop Control Direction Clas		Comments / Petition	Ward
	Street 1	Street 2	Existing	Requested			
(o)	Heming Trail	Robertson Road	NC	NB	Α	Plan of New Subdivision	12
(p)	Scanlon Place	Robarts Drive	NC	WB	Α	Plan of New Subdivision	12
		•	Sectio	n "E" Hamil	ton		•
(q)	Brunswick Street	Walmer Road	NB	All	В	Neighborhood plan as per Clr.	4
(r)	Brunswick Street	Vansitmart Avenue	EB/WB	All	В	Neighborhood plan as per Clr.	4
(s)	Talbot Avenue	Vansitmart Street	EB	All	Α	Neighborhood plan as per Clr.	4
(t)	Connell Crescent (north leg)	Fortissimo Drive	NC	WB	Α	Housekeeping – missing t-type stop sign	8
(u)	Connell Crescent (south leg)	Fortissimo Drive	NC	WB	А	Housekeeping – missing t-type stop sign	8
(v)	Verne Court	Nellida Crescent	NC	NB	Α	Housekeeping – missing t-type stop sign	8
(w)	Tampa Court	Sarasota Avenue	NC	EB	Α	Housekeeping – missing t-type stop sign	8
(x)	Marriott Place	Sarasota Avenue	NC	EB	Α	Housekeeping – missing t-type stop sign	8
(y)	Talisman Court	Sarasota Avenue	NC	EB	Α	Housekeeping – missing t-type stop sign	8
(z)	Coralridge Court	Mountbatten Drive	NC	WB	Α	Housekeeping – missing t-type stop sign	8
(aa)	Quarry Court	Hawkridge Avenue	NC	EB	Α	Housekeeping – missing t-type stop sign	8
	•	•	Section	"F" Stoney (	Creek		•
(bb)	Bonita Drive	Brentwood Drive	SB	SB	А	Housekeeping – yield conversion to stop sign	9

### <u>Legend</u>

No Control Existing (New Subdivision) - NC
Intersection Class: A - Local/Local B - Local/Collector C - Collector/Collector

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### LOCATION PLAN

PROPOSED STOP CONTROL:

**Ancaster Meadows Phase 2B** 

Roads and Traffic PUBLIC WORKS DEPARTMENT

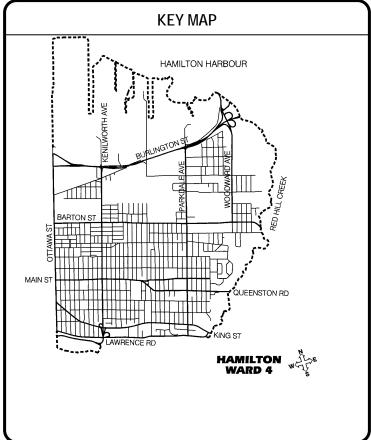
### **LEGEND**

- **EXISTING STOP**
- PROPOSED STOP

SCALE **NOT TO SCALE** 

DATE May 14, 2018





### **LOCATION PLAN**

PROPOSED STOP CONTROL:

Brunswick Street at Walmer Road Vansitmart Avenue at Brunswick Street Talbot Street at Vansitmart Avenue

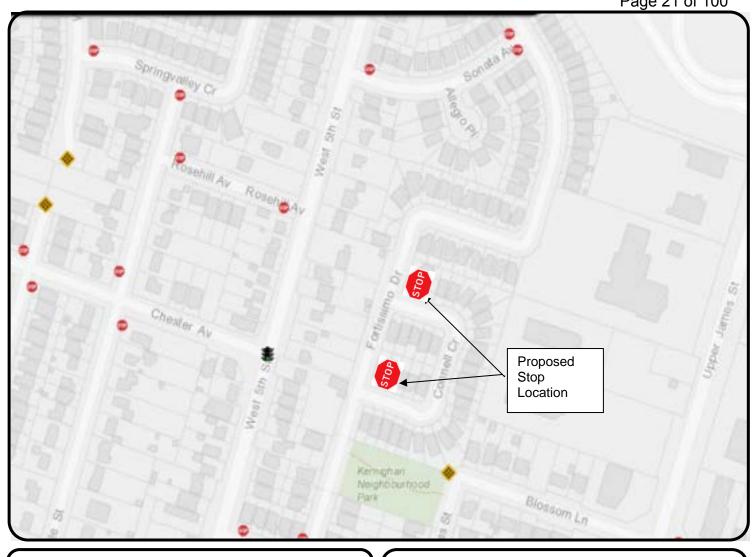
Roads and Traffic PUBLIC WORKS DEPARTMENT

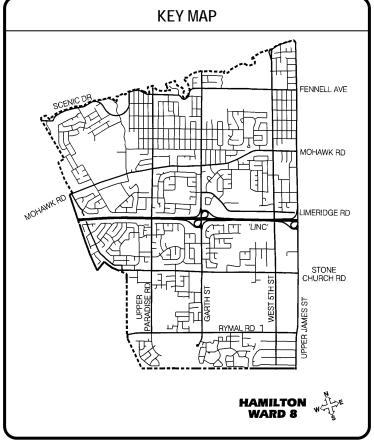
# **LEGEND**

- EXISTING STOP
- PROPOSED STOP

SCALE NOT TO SCALE

DATE **May 14, 2018** 





# **LOCATION PLAN**

PROPOSED STOP CONTROL:

### **Connell Crescent at Fortissimo Drive**

Roads and Traffic PUBLIC WORKS DEPARTMENT

## **LEGEND**

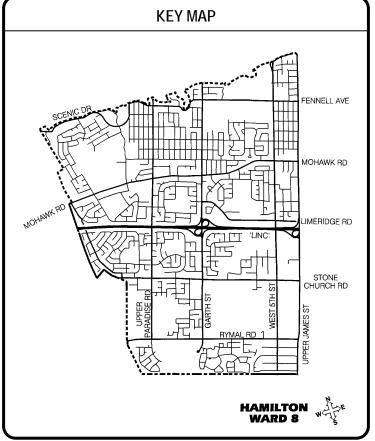
- **EXISTING STOP**
- PROPOSED STOP

SCALE **NOT TO SCALE** 

May 14, 2018

DATE





# LOCATION PLAN PROPOSED STOP CONTROL:

**Verne Court at Nellida Crescent** 

Roads and Traffic
PUBLIC WORKS DEPARTMENT

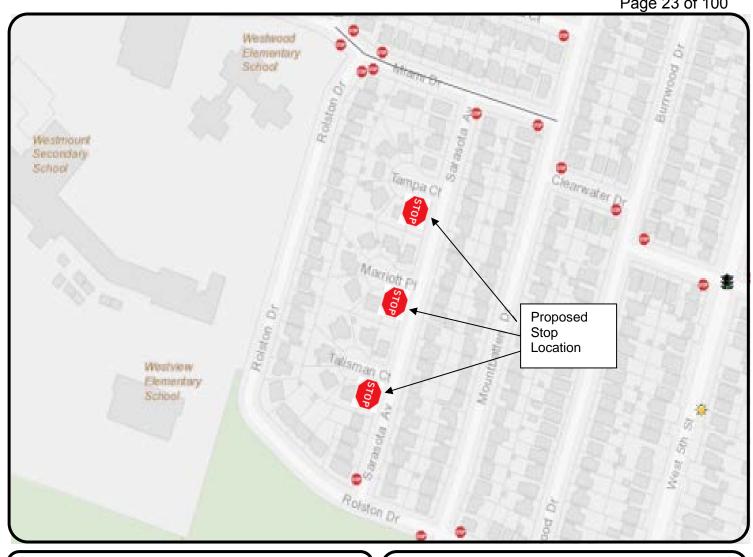
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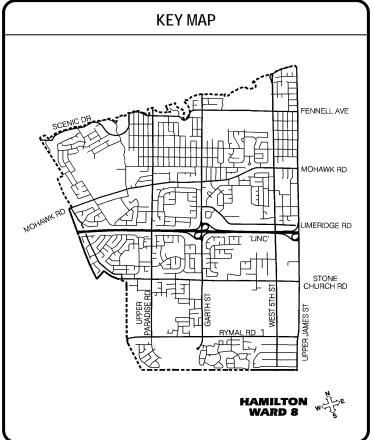
- EXISTING STOP
- PROPOSED STOP

SCALE NOT TO SCALE

DATE **May 14, 2018** 

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### LOCATION PLAN

PROPOSED STOP CONTROL:

Tampa Court at Sarasota Avenue **Marriott Place at Sarasota Avenue Talisman Court at Sarasota Avenue** 

> Roads and Traffic PUBLIC WORKS DEPARTMENT

## **LEGEND**

- **EXISTING STOP**
- PROPOSED STOP

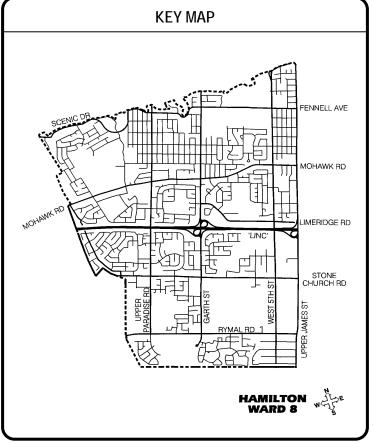
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May 14, 2018

DATE

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### LOCATION PLAN

PROPOSED STOP CONTROL:

**Mountbatten Drive at Coralridge Court** 

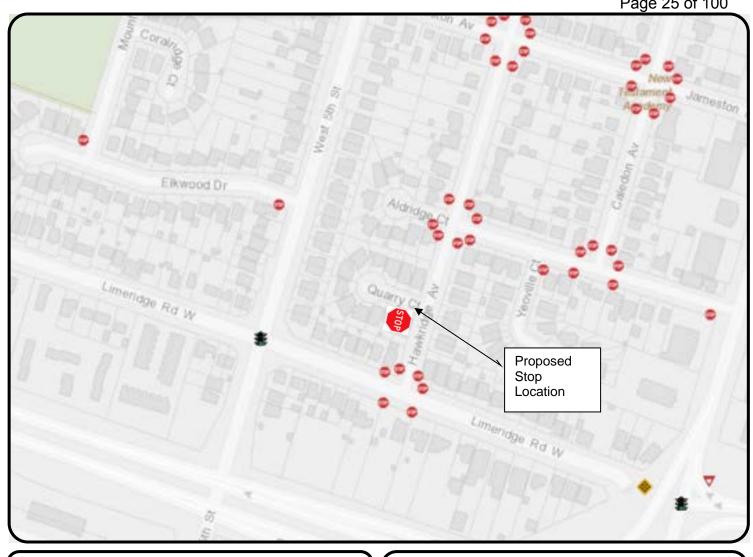
Roads and Traffic PUBLIC WORKS DEPARTMENT

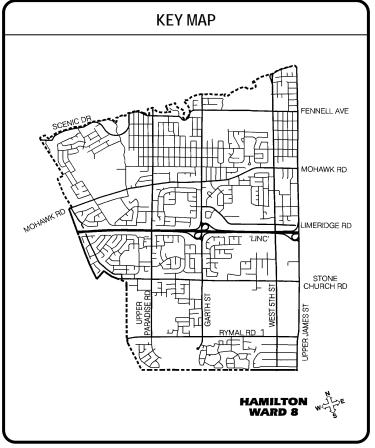
# **LEGEND**

- **EXISTING STOP**
- PROPOSED STOP

SCALE **NOT TO SCALE** 

DATE May 14, 2018





### **LOCATION PLAN**

PROPOSED STOP CONTROL:

### **Quarry Court at Hawkridge Avenue**

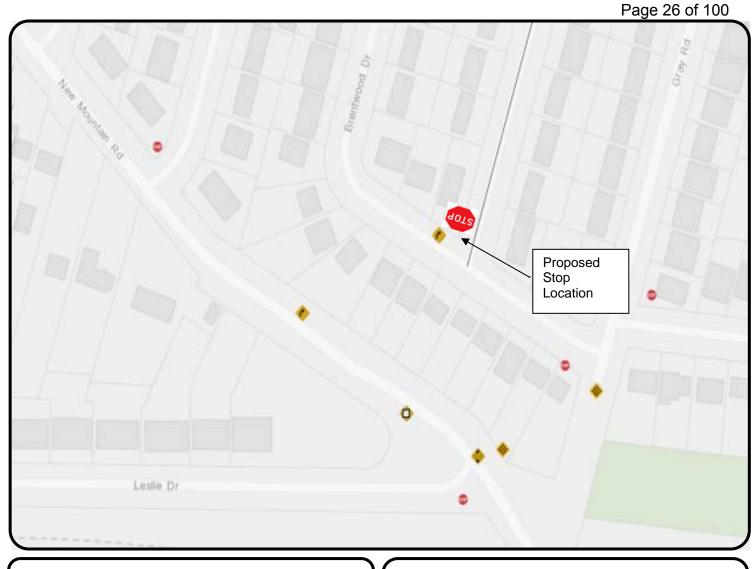
Roads and Traffic PUBLIC WORKS DEPARTMENT

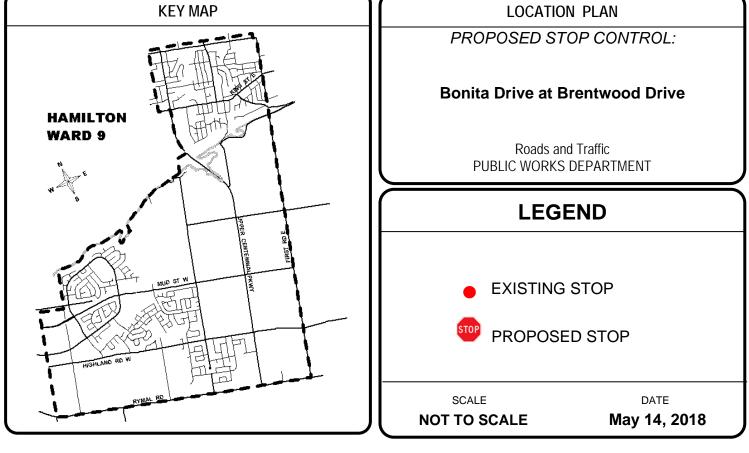
# **LEGEND**

- **EXISTING STOP**
- PROPOSED STOP

SCALE **NOT TO SCALE** 

DATE May 14, 2018





**Authority**: Name of Committee

Report: Date:

Wards: 4, 8, 9, 12

Bill No.

#### CITY OF HAMILTON

### **BY-LAW NO. 18-**

### To Amend By-law No. 01-215 Being a By-law To Regulate Traffic

**WHEREAS** sections 8, 9 and 10 of the Municipal Act, 2001, S.O. 2001, c. 25, authorize the City of Hamilton to pass by-laws as necessary or desirable for the public and municipal purposes, and in particular paragraphs 4 through 8 of subsection 10(2) authorize by-laws respecting: assets of the municipality, the economic, social and environmental well-being of the municipality; health, safety and well-being of persons; the provision of any service or thing that it considers necessary or desirable for the public; and the protection of persons and property;

**AND WHEREAS** on the 18th day of September, 2001, the Council of the City of Hamilton enacted By-law No. 01-215 to regulate traffic;

**AND WHEREAS** it is necessary to amend By-law No. 01-215.

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

1. Schedule 5 (Stop Control) of By-law No. 01-215, as amended, is hereby further amended by adding to Section "A" (Ancaster) thereof the following items, namely;

Cooley Grove	Northbound	Robertson Road
Beasley Grove	Northbound	Robertson Road
Lightfeather Place	Westbound	Grandell Drive
Whittington Drive	Westbound	Grandell Drive
Whittington Drive	Eastbound	Robarts Drive
Findlay Drive	Westbound	Grandell Drive
Findlay Drive	Eastbound	Robarts Drive

To Amend By-law No. 01-215 Being a By-law to Regulate Traffic

Morrison Drive	Eastbound	Page 2 of 3 Robarts Drive
Morrison Drive	Westbound	Grandell Drive
Robarts Drive	Northbound	Lightfeather Place
Robarts Drive	Southbound	Robertson Road
Callon Drive	Westbound	Raymond Road
Callon Drive	Eastbound	Heming Trail
Heming Trail	Westbound	Raymond Road
Heming Trail	Northbound	Robertson Road
Scanlon Place	Westbound	Robarts Drive

### And by adding to Section "E" (Hamilton) thereof the following items, namely;

Brunswick Street			Northbound	Walmer Road
Brunswic	k Street		Northbound/Southbound	Vansitmart Avenue
Talbot St	reet		Northbound/Southbound	Vansitmart Avenue
Connell leg)	Crescent	(North	Westbound	Fortissimo Drive
Connell leg)	Crescent	(South	Westbound	Fortissimo Drive
Verne Co	ourt		Northbound	Nellida Cresent
Tampa Court			Eastbound	Sarasota Avenue
Marriott F	Place		Eastbound	Sarasota Avenue
Talisman	Court		Eastbound	Sarasota Avenue
Coralridge Court			Westbound	Mountbatten Drive
Quarry Court			Eastbound	Hawkridge Avenue

	To.	Amend	d By	-law	No.	01-	215
Beir	าต ล	By-lay	v to	Rea	ulate	Tr	affic

Page 3 of 3

	And by adding to	o Section "F" (Stoney Creek) thereof	the following item, namely;
Bon	ita Drive	Southbound	Brentwood Drive
	•	rield) of By-law No. 01-215, as amending from Section "F" (Stoney Creek) th	· · · · · · · · · · · · · · · · · · ·
	And by removing namely;	g from Section "F" (Stoney Creek) the	ereof the following item,
Bon	ita Drive	South	Brentwood Drive
3.	•	mendments made in this By-law, in all I Schedules thereto, as amended, is h	•
4.	This By-law sh enactment.	nall come into force and take effect on	the date of its passing and
PAS	SSED and ENAC	<b>TED</b> this 23 <sup>rd</sup> day of May, 2018.	
F. E May	isenberger or	Rose Cater City Clerk	rini



# ACCESSIBLE TRANSIT SERVICES REVIEW SUB-COMMITTEE MINUTES 18-001

Thursday, January 18, 2018 1:30 p.m. Room 264 Hamilton City Hall

Present: Councillors S. Merulla (Chair), J. Farr, D. Conley, C. Collins,

Absent

with Regrets: Councillor T. Whitehead – City Business

#### FOR INFORMATION:

### (a) CHANGES TO THE AGENDA (Item 1)

The Clerk advised of the following changes to the agenda:

### 1. DELEGATION REQUESTS (Item 4)

4.1 Delegation Request from Sandra Walker, CUPE Local 5167, respecting DARTS Accessible Transit (for today's meeting).

### 2. PUBLIC HEARINGS/DELEGATIONS (Item 6)

6.1 Advisory Committee for Persons with Disabilities respecting DARTS Service.

### (Collins/Conley)

That the agenda for the January 18, 2018 meeting of the Accessible Transit Services Review Sub-Committee be approved, as amended.

**CARRIED** 

### (b) DECLARATIONS OF INTEREST (Item 2)

There were no declarations of interest.

January 18, 2018 Page 2 of 4

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

(i) November 2, 2017 (Item 3.1)

### (Conley/Collins)

That the Minutes of the November 2, 2017 Accessible Transit Services Review Committee meeting be approved, as presented.

**CARRIED** 

### (d) DELEGATION REQUESTS (Item 4)

(i) Helga and John La Berge respecting the New Powermax and Minivan Units for DARTS (Item 4.1)

### (Conley/Collins)

That the Delegation Request from Helga and John La Berge respecting the New Powermax and Minivan Units for DARTS, be approved for the January 18, 2018 meeting.

**CARRIED** 

(ii) Sandra Walker, CUPE Local 5167, respecting DARTS Accessible Transit (Added Item 4.2)

### (Collins/Conley)

That the Delegation Request from Sandra Walker, CUPE Local 5167, respecting DARTS Accessible Transit, be approved for the January 18, 2018 meeting.

**CARRIED** 

### (e) PUBLIC HEARINGS/DELEGATIONS (Item 6)

(i) DARTS Presentation (Item 6.1)

Mark Mindorff, Executive Director of DARTS, addressed the Committee respecting the DARTS Quarterly Report. A copy of the presentation has been retained for the official record.

### (Conley/Collins)

That the Delegation from Mark Mindorff, respecting DARTS Quarterly Report, be received.

**CARRIED** 

January 18, 2018 Page 3 of 4

# (ii) Advisory Committee for Persons with Disabilities respecting DARTS Service (Added Item 6.2)

Paula Kilburn and Tom Manzuk, Advisory Committee for Persons with Disabilities addressed the Committee respecting DARTS Service.

### (Farr/Collins)

That the Delegation from Paula Kilburn and Tom Manzuk, Advisory Committee for Persons with Disabilities respecting DARTS Service, be received.

CARRIED

# (iii) Helga and John La Berge respecting the New Powermax and Minivan Units for DARTS (Item 6.3)

Helga and John La Berge addressed the Committee respecting the New Powermax and Minivan Units for DARTS.

### (Farr/Collins)

That the Delegation from Helga and John La Berge respecting the New Powermax and Minivan Units for DARTS, be received.

**CARRIED** 

# (iv) Sandra Walker, CUPE Local 5167, respecting DARTS Accessible Transit (Added Item 6.4)

Sandra Walker, CUPE Local 5167, addressed the Committee respecting DARTS Accessible Transit.

#### (Collins/Farr)

That the Delegation from Sandra Walker, CUPE Local 5167, respecting DARTS Accessible Transit, be received.

CARRIED

# ATS Review Sub-Committee Minutes 18-001

January 18, 2018 Page 4 of 4

### (f) ADJOURNMENT (Item 13)

### (Conley/Collins)

That there being no further business, the Accessible Transit Services Review Sub-Committee be adjourned at 2:10 p.m.

**CARRIED** 

Respectfully submitted,

Councillor S. Merulla, Chair Accessible Transit Services Review Committee

Lisa Chamberlain Legislative Coordinator Office of the City Clerk



# CITY OF HAMILTON PUBLIC WORKS DEPARTMENT Environmental Services Division

то:	Chair and Members Public Works Committee
COMMITTEE DATE:	May 14, 2018
SUBJECT/REPORT NO:	Waterford Park Redevelopment – 10 Waterford Crescent, Hamilton (PW18040) (Ward 11)
WARD(S) AFFECTED:	Ward 11
PREPARED BY:	Louise Thomassin Landscape Architect, Landscape Architectural Services (905) 546-2424, Extension 1303
SUBMITTED BY:	Craig Murdoch, B.Sc. Director Environmental Services Public Works Department
SIGNATURE:	

#### RECOMMENDATION

That the remaining funds of \$241,545.93 (\$147,159.59 - Levy, \$94,386.34 - DC) from Trillium Gardens Park Capital Project (4401256516) be transferred to a new Waterford Park capital project to fund consulting services required to complete the studies and design of the park in 2018.

### **EXECUTIVE SUMMARY**

The purpose of this report is to seek authorization to transfer funding and staff resources to the redevelopment of Waterford Park and to preserve the woodlot at Trillium Gardens.

The site characteristics present at Trillium Gardens Park and the corresponding legislative requirements are limiting the area that can be developed as well as the type of site features that can be implemented. Redeveloping Waterford Park with amenities typical of a neighbourhood park supplemented by features that are needed in Lower Stoney Creek will better service the residents that would have benefitted from Trillium Gardens as well as the broader Lower Stoney Creek community.

### Alternatives for Consideration – See Page 5

# SUBJECT: Waterford Park Redevelopment – 10 Waterford Crescent, Hamilton (PW18040) (Ward 11) - Page 2 of 6

### FINANCIAL - STAFFING - LEGAL IMPLICATIONS

Financial: Available funds of \$241,545.93 from Trillium Gardens Park capital project ID 4401256516 are recommended to be redirected to a new capital project ID for Waterford Park.

Additional funds for construction of the proposed park redevelopment at Waterford Park would be required, and would be shown as part of the 2019 Capital Budget request for Council consideration and approval.

Staffing: No additional staffing is required.

Legal: There are no legal implications.

### HISTORICAL BACKGROUND

In the 2012 Capital Budget and Financing Plan funds were allocated to Trillium Gardens to complete the Park design and associated studies.

In 2013, Natural Heritage Planning staff identified that Trillium Gardens is classified as a Linkage in the Urban Hamilton Official plan and staff identified the need to complete a Linkage Assessment Report. As a result, in 2013 Landscape Architectural Services staff retained Dillon Consulting Limited to complete a Linkage Assessment Report and provide development recommendations for the Neighbourhood Park. The assessment concluded that the Trillium Gardens woodlot fulfils two Significant Woodland criteria and that the status of the site should be elevated to a Core Area in the Urban Official Plan.

Development recommendations were as follows:

- That development is restricted to the South-East corner of the site to limit the impact on the existing vegetative community as shown in Appendix "A" attached to Report PW18040.
- That the park is programmed with passive uses such as trails rather than active uses to limit the impact on existing wildlife.

The Linkage Assessment report was submitted to Natural Heritage Planning staff in 2014 and the recommendations were approved.

In 2014, funds were requested to proceed with the design and construction of Trillium Gardens Park. A budget of \$95,000.00 was approved for design in the 2015 Capital Budget followed by \$200,000.00 for construction in the 2017 Capital Budget.

# SUBJECT: Waterford Park Redevelopment – 10 Waterford Crescent, Hamilton (PW18040) (Ward 11) - Page 3 of 6

In 2017 Landscape Architectural Services staff retained a Geotechnical Consultant to complete soils investigations and Dillon Consulting to complete the detailed design. The consultants identified the following site limitations at the onset of their investigations:

- That the site is wet and would require fill material to be imported to the site to raise the grade.
- That since the initial Linkage Assessment Report in 2014, the Ministry of Natural Resources implemented new Endangered Species legislation that would require bat monitoring to be conducted at Trillium Gardens Park prior to any detailed design work.

In 2017, Cultural Heritage Staff identified that Trillium Gardens has Archaeological Potential and that a Stage I and Stage II Archaeological Assessment would need to be undertaken as required by the Ministry of Tourism, Culture and Sport. It was also flagged by Cultural Heritage Staff that assessments completed in the neighbourhood directly surrounding Trillium Gardens necessitated a Stage III Assessment due to the discovery of artifacts and that Trillium Gardens Park could follow a similar route depending on the Stage II findings.

In 2017, Landscape Architectural Services staff presented to the Ward Councillor the increasing study requirements, the physical site constraints and the limited opportunity to include amenities typical in a Neighbourhood Park development. The following is a summary of the main points:

- Bat monitoring and a potential Stage III Archaeology Assessment are required by Provincial legislation.
- Recommendations in the Linkage Assessment Report limit the developable area and restrict park users to a portion of the site that is undesirable.
- Recommendations in the Linkage Assessment limit the type of park features to passive uses and that park features expected in a typical Neighbourhood Park, such as swings, a multi-use court, a sun shelter, asphalt pathways etc. could not be provided.
- The existing woodlot and associated removals/replacement costs along with the fill material that would be required due to the wet soils for the construction of items typical in a neighbourhood park, limit the financial potential to invest in park amenities.

### SUBJECT: Waterford Park Redevelopment – 10 Waterford Crescent, Hamilton (PW18040) (Ward 11) - Page 4 of 6

 The existing woodlot is serving an important ecological function as one of the few migratory species habitats in the area and significant development would impact its integrity.

The constraints affecting the development of Trillium Gardens Park are significant and the development opportunities are limited. For this reason, Landscape Architectural Services staff are recommending funds be allocated to Waterford Park, to allow redevelopment of a park within an 800m walking distance for the residents that would have been served by Trillium Gardens Park.

#### POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The Capital Projects' Budget Appropriation and Work-in-progress Transfer Policy states that "any appropriations that do not conform to the Policy must be specifically approved by the City of Hamilton Council". In this case, there is no approved project to transfer the funds to, so a new Project ID is required, and Council approval of a new capital project is required.

#### **RELEVANT CONSULTATION**

The following internal groups were consulted and are in support of the recommendations:

- Ward 11 Councillor
- Natural Heritage Planning Planning and Economic Development
- Cultural Heritage Planning Planning and Economic Development
- Zoning Examiner Planning and Economic Development
- Planning Policy and Zoning By-Law Reform Planning and Economic Development
- Recreation Community and Emergency Services
- Forestry and Horticulture Public Works
- Parks Operations Public Works
- Real Estate Planning and Economic Development

The following external groups were consulted to provide context and information to support the recommendations:

- Hamilton Conservation Authority
- Dillon Consulting Limited (Ecology and Landscape Architecture)
- Historic Horizons (Archaeology)
- EXP Services (Geotechnical)
- Hamilton-Wentworth District School Board

### SUBJECT: Waterford Park Redevelopment – 10 Waterford Crescent, Hamilton (PW18040) (Ward 11) - Page 5 of 6

#### ANALYSIS AND RATIONALE FOR RECOMMENDATION

Trillium Gardens should not be developed and should be protected for the following reasons:

- The site conditions and related policy implications at Trillium Gardens limit the opportunity to develop a park in a suitable location on the site and with amenities typical of a neighbourhood park.
- The financial and schedule implications to conduct the required studies and remedy unfavourable site conditions are not typical of a neighbourhood park and will not result in an equal added service to the community.
- The woodlot is significant and is one of the few viable greenspaces for migratory birds in the area. The protection of the woodlot runs parallel with the City's strategic initiative to balance natural and urban spaces.

Waterford Park was selected as an alternative site with potential for redevelopment because it offers the ability to service the residents that would have benefited from a neighbourhood park at Trillium Gardens by achieving the following:

- Waterford Park is located within a 10-minute walk (800 meters) from Trillium Gardens Park as shown in Appendix "B" attached to Report PW18040.
- The site amenities at Waterford Park are at or nearing the end of their lifecycle and will require replacement. This presents an opportunity to redevelop the park with amenities that would serve the needs of the community that would not have been achievable at Trillium Gardens.

#### **ALTERNATIVES FOR CONSIDERATION**

Provide no parkland improvements in this planning area as the community is currently served by the existing parkland. This is not recommended as many of the amenities at Waterford Park have reached the end of their life cycle and are in need of replacement. Additionally, redeveloping Waterford Park presents an opportunity to include new amenities that have been identified as a need for Lower Stoney Creek in the Outdoor Recreation Facilities and Sports Field Provision Plan.

### SUBJECT: Waterford Park Redevelopment – 10 Waterford Crescent, Hamilton (PW18040) (Ward 11) - Page 6 of 6

#### ALIGNMENT TO THE 2016 - 2025 STRATEGIC PLAN

#### **Community Engagement & 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.

#### 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" – Trillium Gardens Developable Area

Appendix "B" – Waterford Park Location Map



**Trillium Gardens Park Developable Area** 

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					5
DATE: March, 2	018		DRA	WN BY: JJ	
NOTE:					







**Waterford Park Location Map** 





Landscape Archibecbural





#### INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	May 14, 2018
SUBJECT/REPORT NO:	2017 Annual Energy Report (City Wide) (PW18041)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Tom Chessman (905) 546-2424, Extension 2494 Linda Campbell (905) 546-2424, Extension 2810
SUBMITTED BY:	Rom D'Angelo, C.E.T.;CFM 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 2017 Annual Energy Report is attached as Appendix A. The report provides a summary of energy usage, performance comparisons and cost savings initiatives for the calendar year 2017. Energy intensity (energy usage per square foot) is the key performance indicator for corporate buildings, and that was down 6% in 2017 compared to 2016, and down 28% from the base year of 2005.

The report includes updated results for the City's overall utility costs and energy conservation project updates.

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 2016 calendar year are presented within the 2017 Annual Energy Report.

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

#### SUBJECT: 2017 Annual Energy Report (City Wide) (PW18041) Page 2 of 2

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 <a href="https://www.hamilton.ca/energy">www.hamilton.ca/energy</a>.

#### **Appendices and Schedules Attached**

Appendix A - 2017 Annual Energy Report

2017

Report PW18041 Pages 1 of 43

# City of Hamilton 2017 Annual Energy Report

#### **Our Mission**

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



#### Introduction

In 2016 the City unveiled its Strategic Plan for 2016-2025. The plan outlined several strategic priorities to align with the City's Community Vision and to support the City's mission to provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community in a sustainable manner.

The City continues to demonstrate municipal leadership in managing its corporate energy portfolio. The Clean and Green strategic priority has allowed for promotion of several energy initiatives such as a variety of energy conservation projects, demand management efforts and renewable generation to be broadly supported. The City's Corporate Energy policy acts as a guideline to facilitate energy initiatives and principles for the City's new and existing corporate buildings.

With an eye on mitigating rising costs and reducing energy use and emissions, the 2017 Annual Report details energy usage, costs, energy performance, procurement efforts, energy conservation initiatives and greenhouse gas emissions reductions for the 2017 calendar year. The report also details cumulative corporate results to 2006.

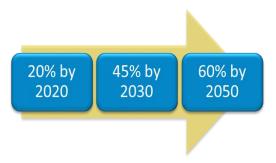
Becoming clean and green is an ongoing process. Leveraging new technologies, adapting to changing regulatory legislation and supporting sustainable, efficient and renewable options for our corporate buildings will not only be desired, but necessary for the Hamilton of the future. Tracking and reporting on continuous progress is key in recognizing where we are currently, and where we need to be in order to meet our strategic goals.

#### **Corporate Energy Policy Review**

The current Corporate Energy Policy (PW14050) outlines specific targets for a variety of key performance measures and the guidelines to achieve results. The policy is intended to:

- Facilitate the achievement of City-wide energy and emission reduction targets;
- Address the legislated reporting requirements e.g. Green Energy Act (GEA);
- Define policies for capital investment related to energy;
- Define policies related to energy procurement; and
- Address regulations concerning greenhouse gas (GHG) emissions.

One of the key performance measures for the City is the energy intensity reduction targets established in the Corporate Energy Policy. The policy calls for energy intensity reduction targets of 45% by 2030 and 60% by 2050 in corporate buildings overall. The initial target of 20% reduction was achieved in 2013.



The energy intensity reduction for 2017 as compared to the base year of 2005 was a 28% reduction.

A series of policy actions was established in the Corporate Energy Policy to provide a set of guidelines and protocols to assist in making

decisions relative to energy equipment, processes, systems and activities. The intent of the guidelines is to support energy-related changes and improvements that will lead to further energy reductions and further emissions reductions to benefit the City both environmentally and financially.

#### **Energy Strategies and Programs KPI's**

Every year the City takes steps to reduce or mitigate rising costs. Completing energy conservation projects that reduce usage, applying for incentives, recovering costs from bill review, or undertaking rate optimization strategies are all contributing factors to saving or mitigating costs for the City. Tracking this information is a key performance indicator (KPI) of the City's efforts.

The total results from the energy strategies and programs undertaken in 2017 were \$9.65 million. The total cumulative from 2005 to 2017 was \$68 million.

The different energy programs and strategies included here are described below.

#### **Utility Rates and Commodity Strategies**

This category is classified as the electricity and natural gas costs that would have been incurred had no action been initiated by City. Actions include procurement plans and hedging strategies, as well as optimizing utility rates such as switching rate classes to benefit from Global Adjustment (GA) savings opportunities. In 2017 the eligibility requirements for Class A allowed for two additional sites to be converted from general service Class B to the Class A rate. Tim Horton's Field and the Hamilton Water site at 111 Kenilworth were added in July. Peak day tracking of provincial demand for Class A assets allow staff to respond to potential peaks, resulting in further cost reductions. The GA Class A program resulted in a total of \$5.98 million of costs avoided by the City for the year. Including commodity hedging, this category totalled nearly \$6.5 million for 2017.

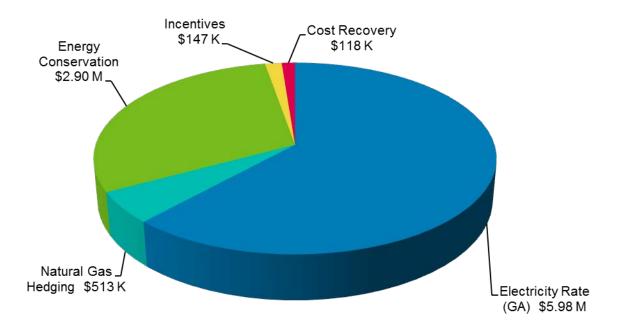
#### **Cost Recovery**

This category is classified as the costs recovered due to the City's continuous efforts in monitoring and analyzing its utility accounts. Recovery from billing errors or rate corrections totalled \$118,000 in 2017.

#### **Energy Conservation and Incentive Programs**

This category is classified by the savings achieved from the implementation of energy efficient measures, equipment and processes that lead to lower consumption, and any financial incentives received for those projects. There are a variety of financial incentives available for eligible projects, from Utility providers and the Independent Electricity System Operator (IESO), to provincial and federal government funding options. Savings from energy projects and incentives totalled \$3.05 million in 2017.

Figure 1: 2017 Total Breakdown on Energy Programs and Strategies



#### **Overall Energy Costs**

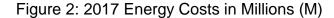
The City tracks and measures the costs and consumption for electricity, natural gas and fuels against the previous year and to the baseline year of 2005. Costs for the sites also connected to the district energy loop (and supplied by HCE Energy Inc.) e.g. City Hall, Central Library, Lister Block, FirstOntario Centre, FirstOntario Concert Hall and Hamilton Convention Centre are included in electricity or natural gas costs.

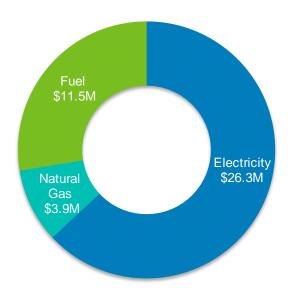
Utility costs are a significant component of operating costs for corporate buildings. Conservation and energy efficient upgrades to equipment that reduce consumption can mitigate rising costs, but costs themselves are impacted by more than usage. Utility rates, regulatory changes, inflation, global markets and weather can influence costs.

In Ontario, regulatory changes in the past few years have trended upwards with electricity costs, in particular, increasing dramatically. In the summer of 2017, the provincial government responded to high rates with rebates and rate changes to offer some relief to residential and small commercial consumers. Natural gas costs increased in 2017 with the introduction of Cap & Trade regulations. While the City can do little to combat regulatory driven increases, conservation and efficiency upgrades play a significant role in reducing the impacts of those increases. The City has recognized the importance of consumption reduction on mitigating costs by focusing on energy efficiency.

Comparing cost, consumption, unit pricing and energy intensity can give a clearer picture on the entire energy spend within the City.

In 2017, the City spent \$41.7 million on electricity, natural gas and fuels. Overall, this is a cost decrease of 9% when compared to 2016. This can be attributed to conservation, weather, fuel switching and regulatory changes.





The costs are incurred by Citybuildings/facilities owned and exclude City Housing Hamilton. Utilities include Alectra Utilities, Hydro One, and Union Gas. In addition, sites linked to the district energy system have utility costs from HCE included electricity or natural gas. Fuel includes diesel, unleaded gasoline and CNG for all Fleet. Operations and Transit vehicles but does not include Hamilton Police Services or Darts. Sites with only partial data are excluded.

#### The results are:

- Overall electricity costs were \$26.3 million in 2017, 13% lower than in 2016
- Overall natural gas costs were \$3.9 million in 2017, 12% higher than in 2016

 Overall fuels costs (diesel, unleaded gasoline and natural gas) were \$11.5 million in 2017, 5% lower than in 2016.

It is important to note that the corporate make-up of buildings reported here may change year over year. In any given year, buildings may be added, either built or purchased, or removed, due to property sale or demolition which impacts their inclusion in the report. Square footage numbers for reporting will also change. This report includes full year data sets for City (non-leased) sites, excluding City Housing Hamilton.

#### **Energy Performance KPI's**

Tracking and reviewing costs is important. However cost does not tell the whole picture. More importantly, costs do not always reflect what is happening within a building or across the City. While lowering consumption is a reasonable indicator that costs should decrease, changes in total costs can be influenced by more than just consumption. Unit cost is a good indicator of cost impact. Unit cost includes fixed and variable costs and can show how, even with a reduction in overall usage, the cost per unit may increase or decrease.

Regulatory activity has led to big impacts on prices over the past few years, particularly with electricity where the increases to electricity rates have generally outpaced the reductions in consumption. Cap & Trade legislation introduced this year automatically led to cost increases for heating customers on natural gas and other fuels.

Furthermore, consumption patterns themselves are impacted by more than just the users. Weather, occupancy or program changes and process improvements are just some of the forces affecting the usage in a building.

Creating and consistently reporting on key performance indicators (KPI), leveraging technology, and measuring results are all important in determining performance. It leads to transparency, accountability and ownership but also helps drive new initiatives. To identify energy performance, the data for electricity and natural gas costs, consumption and energy intensity is tracked for all City-owned sites, excluding City Housing Hamilton. As a key performance indicator outlined in the Corporate Energy Policy, energy intensity allows for us to focus in on areas of concern and identify opportunities for improvement to support the City's Strategic Plan.

#### **Electricity Consumption and Cost**

Electricity is the largest energy expenditure for the City. Hamilton is served by two local distribution companies (Alectra Utilities and Hydro One). Approximately 85% of the City's cost and consumption is billed by Alectra and 15% comes from Hydro One, which serves our more rural areas. Electricity costs are made up of commodity, distribution, transmission, regulatory and delivery charges. Although the utility rates may vary

between Alectra Utilities and Hydro One, both are regulated by the Ontario Energy Board (OEB) and must seek approvals for any rate changes.

Over the past several years the costs for electricity continued to rise. To combat rising electricity costs for consumers, in particular residential and small commercial customers, the provincial government introduced Ontario's Fair Hydro Plan in the summer of 2017. The program has helped to reduce costs to current customers, and is expected to be in place until 2020.

Costs and consumption for electricity do show a decrease in 2017. The reduction in consumption is due in part to an array of efficiency projects, but is also impacted by weather. The cooling degree days, which are a measure of how much (in degrees), and for how long (in days), outside air temperature was higher than a specific base temperature, were 40% lower in 2017 than 2016. This can help reduce electrical consumption during the shoulder and summer months, thus lowering cost. An additional weather-related impact is the City's response to peak day activity. When potential peak days occur, shifting operations and taking steps to reduce consumption during peak periods can positively impact cost overall.

Below is a comparison for year over year and to the base year for cost and consumption of electricity.

Figure 3: Electricity Cost and Consumption Comparison

				Compa	arisons
				2017	2017
				VS	VS
Electricity Overview	2005	2016	2017	2005	2016
Total Electricity (kWh)	236,362,045	224,322,011	215,322,168	-9%	-4%
Total Electricity (\$)	\$20,657,050	\$30,144,778	\$26,341,588	28%	-13%
Total Electricity (\$/kWh)	\$0.087	\$0.134	\$0.122	40%	-9%

#### **Natural Gas Consumption and Cost**

Natural Gas costs include commodity and regulated costs for storage and delivery from Union Gas. Cap & Trade, which was implemented in January 2017, are imbedded in Union Gas delivery charges. Although it varied slightly, depending on rate class, the Cap & Trade program added approximately 3.4 cents per m³ of consumption to the delivery charge. Similar to electricity, regulated costs are also approved by the OEB. Natural gas consumption is particularly impacted by cold weather, and prices are typically higher during peak-consuming times. However, because it is possible to purchase (hedge) natural gas on the wholesale market, the City is able to mitigate the fluctuations in commodity cost.

2017 did have a slight increase in consumption of less than 1% compared to 2016. Heating degree days, which are a measure of how much and for how long the outside air temperature was lower than a specific base temperature, were in line with 2016. The first part of 2017 was milder than the previous year and November and December were colder.

In the past costs had steadily decreased year over year. Compared to the base year both cost and consumption is down. However, with the added Cap & Trade charges in 2017, the year over year costs have increased almost 12% compared to 2016.

Below is the comparison year over year and to the base year for cost and consumption of natural gas for facilities. The figures below do not include compressed natural gas (CNG) used for Transit buses.

Figure 4: Natural Gas Cost and Comparison

				Compa	arisons
				2017	2017
Natural Gas Overview	2005	2016	2017	vs 2005	vs 2016
Total Natural Gas (m <sup>3</sup> )	15,403,956	12,161,635	12,227,595	-21%	1%
Total Natural Gas (\$)	\$6,520,253	\$3,521,867	\$3,935,717	-40%	12%
Total Natural Gas (\$/m3)	\$0.423	\$0.290	\$0.322	-24%	11%

#### **Combined Costs and Consumption (Electricity and Natural Gas)**

The combined consumption and cost results for electricity and natural gas are measured in equivalent kilowatt-hours (ekWh).

Figure 5: Combined Cost and Consumption for Electricity and Natural Gas

				Comparison		
				2017	2017	
				VS	VS	
Total Energy Overview	2005	2016	2017	2005	2016	
Total Energy (ekWh)	400,722,256	351,654,327	343,345,087	-14%	-2%	
Total Energy Cost (\$)	\$27,177,303	\$33,666,645	\$30,277,305	11%	-10%	
Total Energy (\$/ekWh)	\$0.068	\$0.096	\$0.088	30%	-8%	

#### **Energy Intensity (City-Owned Sites)**

Comparing buildings on consumption per square foot and cost per square foot serves to easily recognize where issues may be and where attention should be focused. Energy intensity is the measure of usage in equivalent kilowatt-hours per square foot

(ekWh/sqft). As one of the key performance indicators for the City's Corporate Energy Policy, looking at energy intensity can pinpoint what appropriate measures could be undertaken to reduce the City's usage, and improve corporate building performance.

The energy intensity for 2017 as compared to the base year was a reduction of 28%, which is on track to meet the next intensity reduction milestone in 2030.

Figure 6: Energy Intensity City-Wide Total for City-owned Sites

				Compa	arisons
				2017	2017
				VS	VS
Energy Intensity	2005	2016	2017	2005	2016
City Total (ekWh/sqft)	45.69	35.14	32.88	-28%	-6%
City Total (\$/sqft)	\$2.67	\$2.74	\$2.44	-9%	-11%
Reported Square Footage	5,138,852	5,528,712	5,633,585	10%	2%

To further compare energy intensity performance, the table below outlines energy intensity totals by site categories (portfolio). Categories that have an "n/a" are not included in the energy intensity calculation as they are operational (e.g. street lighting, park lights, Hamilton Water pumping operations) and do not have relevant square footage information.

Square footage was updated for 2017 to include any added or removed buildings, as well as updates to correct previous inaccuracies in multi-building sites or multi-use single building sites.

Figure 7: Energy Intensity Comparison by Reporting Portfolio Category

Energy Intensity				2017	2017
Energy intensity				VS	VS
	2005	2016	2017	2005	2016
City/Town Halls	39.6	23.0	23.1	-42%	0%
Corporate Facilities	44.6	17.1	20.6	-54%	20%
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	34.1	26.1	-31%	-23%
Arenas	51.3	43.8	39.0	-24%	-11%
Community/Senior Centers	31.1	24.9	23.4	-25%	-6%
Rec Centres/Pools	78.6	68.4	69.2	-12%	1%
Tim Horton's Field	0.0	25.2	22.7	n/a	-10%
Rec Parks/Stadiums/Golf	36.5	32.9	34.5	-5%	5%
Lodges (Macassa, Wentworth)	113.6	46.4	45.1	-60%	-3%
Culture	35.5	36.3	30.4	-14%	-16%
Fire/ EMS	45.2	37.3	36.0	-20%	-3%
Hamilton Public Libraries	25.2	27.5	26.9	7%	-2%
First Ontario Centre	22.5	21.9	20.4	-10%	-7%
Hamilton Convention Centre	37.2	28.3	29.7	-20%	5%
First Ontario Concert Hall	57.8	46.5	49.7	-14%	7%
Hamilton Police Services	59.8	35.2	35.2	-41%	0%
City Wide Total	45.69	35.14	32.9	-28%	-6%

Additional tables showing energy consumption, costs and energy intensity by portfolio are provided in Appendix A (pages 23 to 34).

#### Corporate Average Fuel Economy

Fuel used for the City's fleet of vehicles is tracked and measured annually and continues to be a large spend for City. Corporate Average Fuel Economy (CAFE) is the measurement method for determining fuel consumption efficiency. CAFE is measured as fuel consumed in diesel litre equivalent (DLE) per 100 km. As a KPI for fleet, the Corporate Energy Policy outlined targets for improving CAFE. A 20% reduction in fuel economy by 2030 is the current long term target in place.

Improving and managing CAFE can be achieved by improved engine/drive technology, through purchasing decisions around fit-for-purpose vehicles and operator training. Additionally, the City has Anti-idling bylaws in place to help in reducing fuel consumption overall.

As of 2017, there was an overall reduction of 1% as compared to the base CAFE level shown in the table below.

Figure 8: Corporate Average Fuel Economy 2017 to Base Comparison

Diesel Litre Equivalent (DLE) per 100 KM	BASE (2012)	2017
Unleaded Gasoline	20.7	19.6
Diesel	54.5	55.8
CNG	66.2	68.0
Total	46.2	45.5
Overall % Changed in DLE/100 KM		-1%

The tracking of fuel use per vehicle has been around for several years; however tracking accurate mileage of those same vehicles has been more difficult to manage. New tracking technologies are being considered to improve the reliability of the data, and more accurately measure CAFE in the future.

#### **Fuel Cost and Consumption**

The City makes wholesale fuel purchases for its fleet of vehicles. The City's fleet includes, but is not limited to, buses, waste collection vehicles, snow removal trucks, street sweepers, departmental vehicles, and Fire and Emergency Services (EMS) vehicles. The fuels used for the majority of vehicles are traditional diesel and unleaded gasoline; however the City is continuously expanding its fleet of compressed natural gas-fuelled buses.

In 2017, the City used approximately 9.4 million litres of diesel fuel, a 15% decrease as compared to 2016 purchases. The average cost of diesel in 2017 was \$0.91/L. The City used 2.1 million litres of unleaded gasoline, a 3% decrease as compared to 2016. The average cost of gasoline in 2017 was \$0.95/L.

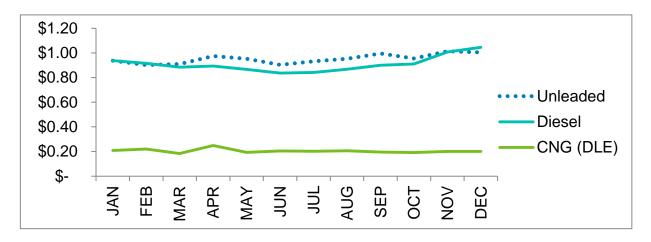
While diesel purchases decreased in 2017, the purchase of compressed natural gas (CNG) increased. The primary reason for this is Transit's bus replacement program, retiring diesel buses and replacing them with CNG-fuelled buses. The City used 4.2 million litres in diesel litre equivalent (DLE) of CNG in 2017, which was a 60% increase over 2016.

Figure 9: 2017 Consumption and Costs of Fuels

Fuel Type	Consumption Litres	Cost	Average \$/L
Diesel	9,404,408	\$ 8,544,954	4 \$ 0.91
Unleaded Gasoline	2,138,446	\$ 2,034,279	9 \$ 0.95
CNG (DLE)	4,195,759	\$ 910,464	4 \$ 0.22

CNG is a lower cost fuel for buses, but they do operate at approximately 75% efficiency per diesel litre equivalent when compared to diesel fueled bus usage. However, despite a lower efficiency, the resulting lower cost for fuel and lower GHG emissions is of benefit to the City. The City's monthly fuel price is shown in Figure 10.

Figure 10: 2017 Monthly Fuel Prices in DLE



When converted to diesel equivalent dollars and adjusting for efficiency, Transit spent \$1.9 million less running their CNG buses than they would have using only diesel buses.

#### 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 fuelled 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 methane 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 CO<sub>2</sub>e. In 2017 the net benefit from

all HRPI operations was approximately \$1.5 M, with a cumulative total of \$16.6 M from 2006.

Renewable natural gas can be created using Hamilton Water Biogas Purification Unit, which captures excess methane gas from the anaerobic digestion process of waste water products. The methane is purified, treated and conditioned to yield utility grade renewable natural gas that can be injected into Union Gas distribution system.

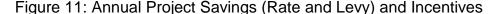
#### **Energy Conservation**

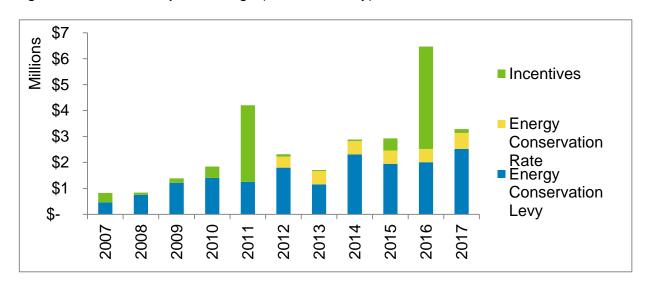
Energy conservation projects are one of the methods the City uses to help achieve energy intensity reduction targets and GHG reduction targets. Making upgrades to existing building, or adopting emerging technologies in new builds are one way to improve efficiencies, reduce GHG emissions and operate more cost-effectively.

The City can both track immediate changes with the building, but also track energy savings once the projects are complete.

Project teams work with consultants, engineers, utility personnel and industry experts to maximize efficiencies and ensure that funding opportunities, incentives and Monitoring & Verification (M&V) plans are utilized.

The 2017 energy savings contribution from projects is \$3.14 million, with \$147,000 in incentives for a total of \$3.23 million in conservation savings. The cumulative value since the 2005 baseline year is over \$28 million for project savings and incentives.





#### Spotlight on Street Lighting

Hamilton streets are looking a whole lot brighter these days. For the past 4 years, street lighting projects have been happening throughout the City, upgrading to light emitting diode (LED) technology.

The 'Lighting Asset Modernization Project' (LAMP) is the next phase of LED street lighting upgrades. In 2015, approximately 10,000 street lights were upgraded to LED. The 2015 project has resulted in positive savings which have recouped the capital cost outlay and reduced the 2018 street lighting operating budget by \$750,000. LAMP is targeting 27,000 cobra-head style street lights and once completed the majority of the City's 45,000 street lights will be LED leaving only non-cobra head style street lights remaining. The current project is being completed in 4 phases with expected completion by the end of 2018.

LED street lights installed by the LAMP project will consume approximately 60% less electricity than their HPS counterparts. The LED street lights also have a long in-service life expectancy in excess of 15 years thereby reducing the City's operating costs and further enhancing service levels. Once completed, LAMP will reduce the City's energy usage by approximately 2.1 mega-watts, equal to the amount of electricity consumed by over 1,000 homes.

#### **2017 Project Highlights**

A variety of energy efficiency projects were completed in in 2017. Below is a highlight of the projects that helped to reduce energy usage and improve efficiencies.



#### Arena's LED Lighting Retrofit Project

- Installation of new LED Lighting in 18 of the City's Arena's, including Ice surface lighting & controls, change rooms & common area lighting.
- •Benefits include improved lighting conditions, dimmable/selectable ice lighting levels. Benefits also include a reduction in lamp maintenance costs.
- •1,150,000 kWh annual reduction and \$205,000 in energy and maintenance savings.
- •\$124,000 in incentives to be expected from IESO SaveONenergy program.



### First Ontario Centre Ice Surface Lighting Retrofit Project

- •Installation of new, highly efficient LED lighting over the Ice surface replacing old HID lighting technology.
- •Benefits include instant on lighting, improved lighting colour, higher light levels and new lighting controls.
- •494,300 kWh annual reduction and \$65,000 in annual energy and maintenance savings.
- •\$35,000 in incentives to be expected from IESO SaveONenergy program



### Macassa & Wentworth Lodge, LED Lighting Retrofit Project

- Installation of new, energy efficient LED Lighting in all areas of the Lodges including exterior lighting & controls.
- •Benefits include improved lighting colour, higher light levels that meet or exceed Ministry lighting standards, reduced lighting maintenance.
- •760,000 kWh annual reduction and \$117,000 in annual energy and maintenance savings.
- •\$57,000 in incentives to be expected from the IESO SaveONenergy program.



### Morgan Firestone & Parkdale Arenas - Low E Ceilings Project

- Installation of Low Emissivity Ceilings (low E ceilings).
   Low E ceilings block radiated heat from the ice service and the refrigeration system does not have to work as hard.
- Benefits include less wear on refrigeration units.
- •200,000 kWh annual reduction and \$30,000 in annual energy savings.
- •\$30,000 in incentives to be expected from the IESO SaveONEnergy program.



#### First Ontario Concert Hall - General Area LED Lighting Retrofit Project

- •Installation of new LED lighting throughout the facility including lobby & mezzanine, hallways, offices, the Studio & Great Hall theatre seating area.
- •Benefits include improved lighting colour, lighting levels and lighting controls and reduced lighting maintenance. 450,000 kWH expected annual reduction and \$60,000 in annual energy savings.
- •\$55,000 in incentives to be expected from the IESO SaveONEnergy program.



#### Riverdale Community Centre - BAS Upgrades

- Upgrade of the existing building automation system to connect to City's centralsed Building Control Centre.
- •Benefits include improving the building operations and thermal comfort of the building.
- •20,500 kWh and 2,400 m³ in expected annual reduction and \$3,800 in annual energy savings.
- •\$3,000 in incentives to be expected from the IESO SaveONEnergy program.



#### Hamilton City Hall -2nd Floor Lighting Upgrades

- •Installation of new LED Lighting on the 2nd floor of City Hall
- Benefits include improved lighting conditions for health and safety, and a reduction in lighting maintenance time and costs.
- •28,900 kWh expected annual reduction and \$2,300 in energy savings.
- •\$4,400 in incentives to be expected from IESO SaveONenergy program.



#### Macassa Lodge Chiller Refurbishment

- Refurbishment of a 220 ton chiller.
- Benefits include providing chiller with increased reliability, energy efficiency, and to avoid unscheduled downtime to enhance resident comfort.
- •159,000 kWh expected annual reduction and \$15,900 in energy savings.

#### 2018 - Upcoming Projects

### Ice Arenas Refrigeration Controls

An expansion on the 2017 pilot to 13 arenas. The technology utilizes controls and variable frequency drives to optimize the efficiency of the refrigeration process and is expected to generate operational savings of over \$200,000.

#### Fire Stations Interior LED Lighting Upgrade

The project addresses upgrading the interior lighting that is often on 24 hours a day to LED, with the projected operational savings of \$36,000.

### Valley Park Aquatic Centre Interior LED Lighting

This project addresses upgrading to more efficient lighting in a high use aquatic facility, with the projected operational savings of \$30,000.

#### Aquatic Centres Exterior LED Lighting

This project addresses exterior LED lighting systems in 9 aquatic facilities to enhance safety, efficiency and modernize appearance. There is a projected operational savings of \$18,000.

### Wentworth Lodge HVAC and BAS Upgrades

This project proposed to utilize new systems and controls to improve resident comfort and improve efficiency. There is a projected operational savings of \$6,000.

#### Macassa Lodge Chiller Upgrade

This project addresses capital replacement of three 60 ton air cooled chillersto enhance occupant comfort and has a projected operational savings of \$23,000.

## Woodward Ave Water and Wastewater – LED Lighting Upgrade

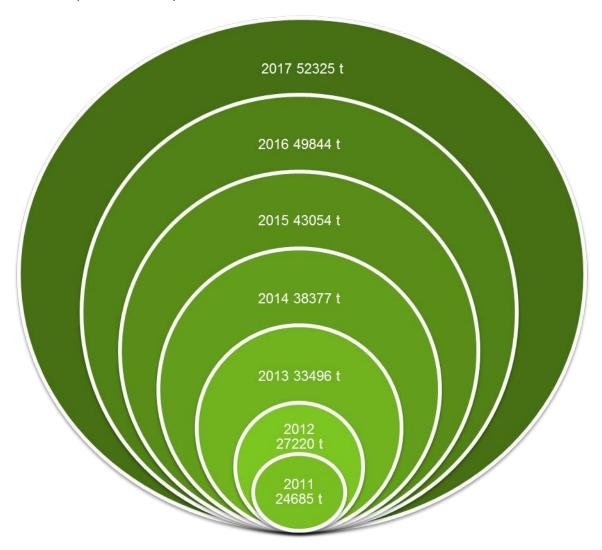
Upgrade to LED in administration offices, industrial spaces, tunnels and exterior and roadway lighting. There is a projected operational savings of \$100,000.

### Mountain Transfer Station LED Lighting Upgrade

This project proposes to upgrade inefficient lighting sources such as metal hallide and high pressure sodium lighting to more efficient LED.

The benefits of energy conservation projects include reducing energy efficiency, lowering operating costs and improving processes. In addition, there are GHG reductions that are associated with energy efficiency projects. The diagram below shows the cumulative GHG reductions that have occurred as a result of energy conservation efforts.

Figure 12: Cumulative GHG Reductions from Energy Conservation Initiatives in Tonnes of CO<sub>2</sub>e (2011 to 2017)



#### **Greenhouse Gas Emissions 2016 Report**

GHG emissions related to Corporate operations have been inventoried and reported annually since adoption of the Corporate Air Quality and Climate Change Strategic Plan (PED06336(a)) in 2008. Originally, the plan established Hamilton's Corporate emission targets at a 10% reduction of 2005 GHG's levels by 2012, followed by a further 20% reduction of 2005 GHG's levels by 2020. The City reached its target for 20% reduction ahead of schedule, in 2012. New, more aggressive GHG emission reduction targets were then established and aligned with City's Corporate Energy Policy and the Board of

Health Climate Change Actions 2012 report (BOH13024). Both call for an 80% reduction in Greenhouse Gas Emissions by 2050 from a base year of 2005. An interim emission reduction target has been set through the Corporate Energy Policy of 50% reduction by 2030.

Data for the GHG report is one year behind, therefore the data shown is for the 2016 calendar year.

In the 2016 reporting year, the GHG emissions inventory was 83,519 tonnes CO<sub>2</sub>e (Carbon Dioxide equivalence). The inventory does not include HRPI operations. This represents a 34% reduction (43,048 t CO<sub>2</sub>e) from the base reporting year of 2005.

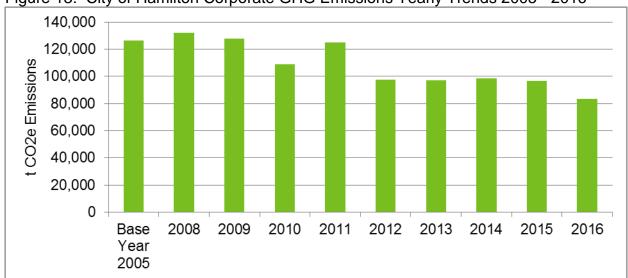


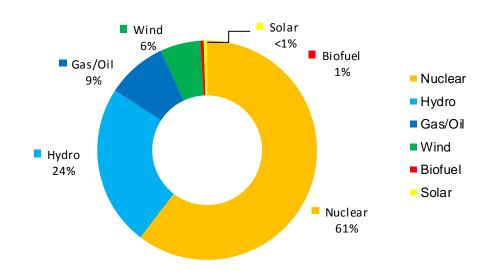
Figure 13: City of Hamilton Corporate GHG Emissions Yearly Trends 2005 - 2016

Note: Does not include HRPI operations

Overall, there has been a general trend of decreasing emissions in the Corporate GHG inventory since the base year. Energy efficiency initiatives, such as energy efficient equipment upgrades which result in a reduction of energy use, or fuel conversion from diesel to natural gas have made an impact on the reduction of the City's GHG inventory. However, the Ontario electricity emission factor, which is a measurement of the CO<sub>2</sub>e intensity of electricity generation, has had a significant impact on the measurement of GHGs. The emission factor reflects the system-wide change in the electricity supply mix in Ontario, which has been steadily decreasing as Ontario moves to greener and cleaner power sources.

The graph below, with data reported from the Independent Electricity System Operator (IESO) shows the energy output by fuel type for 2016 for transmission-connected generation. The annual data varies, depending on real-time data output. It does not include embedded generation.

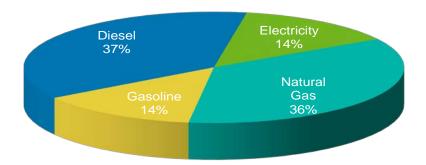
Figure 14: 2016 Energy Output by Fuel Type



Source: Transmission-Connected Generation - IESO Mix 2016 Output

The Corporate GHG Emissions are generated from the following energy sources: electricity, natural gas, diesel, and gasoline. The City's mix of energy sources is depicted in the graph below.

Figure 15: 2016 Percentage tCO<sub>2</sub>e Emissions Contribution by Fuel Source



The figure below shows a breakdown of the percentage of emissions by tonnes  $CO_2e$  that each reported sector has contributed to in 2016. The two largest emitters of GHG's are the City's Vehicle Fleet (38,040 t  $CO_2e$ , 46%) and Corporate Buildings (24,356 t  $CO_2e$ , 29%). Hamilton Water is third (8,990 t  $CO_2e$ , 11%). The remainder of the sectors contribute 5% or less. This is a similar trend to past years.

Figure 16: 2016 Percent Tonnes CO<sub>2</sub>e of Total by Sector

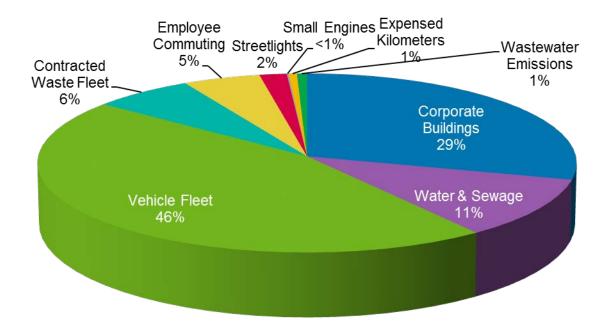
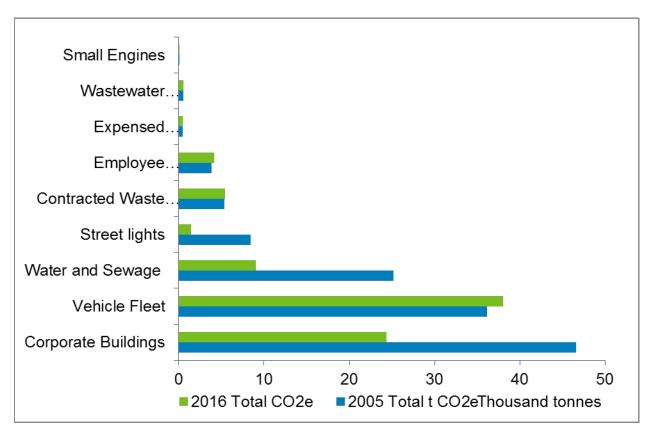


Figure 17: 2016 to 2005 Base Year Comparison by Sector



As shown in Figure 17 above, most sectors show a downward trend in GHG inventory which is due to a combination of Ontario's changing emission factor, and a variety of efficiency measures undertaken by the City. However, Vehicle Fleet including Transit has increased CO2e emissions by 5% over the base year 2005. Although the efficiency of vehicles may have improved since 2005, and Transit has replaced a large number of diesel-run buses with natural gas fueled buses, a lower GHG emitter, the overall fuel consumption has risen as a result of increased fleet size.

#### **Final Comments**

Each year the City strives to reach its long term goals, while operating within an evolving energy industry. With each regulatory, provincial or federal initiative related to reducing energy use and GHG emissions, come new challenges and new opportunities to achieve those objectives.

The City has made great strides, from our existing policy framework, to making "Clean and Green" a strategic priority, but it is important now, more than ever, to reduce our consumption, choose renewable technologies and become more efficient. As the City aims to mitigate rising energy costs and reduce energy consumption to improve energy intensity and GHG targets, the Climate Change Action Plan was introduced to address provincial goals.

The Cap & Trade program, introduced in 2017, was designed to influence large carbon emitters to reduce emissions overall. All consumers pay for the price of carbon within fuel costs (i.e. natural gas and diesel), and in turn the province is expected to use that revenue generation for funding green, GHG-reducing projects as indicated in the Climate Change Action Plan.

Measuring and reporting on our performance continues to be an essential tool for the City to assess it progress and focus its efforts on meeting corporate targets and identifying areas of continuous improvement.

This Appendix provides additional tables, charts and graphs to further illustrate the information provided throughout the report.

#### **Energy Strategies and Programs KPI's**

Figure A-1: Cumulative Results of Energy Programs and Strategies (2006 – 2017)

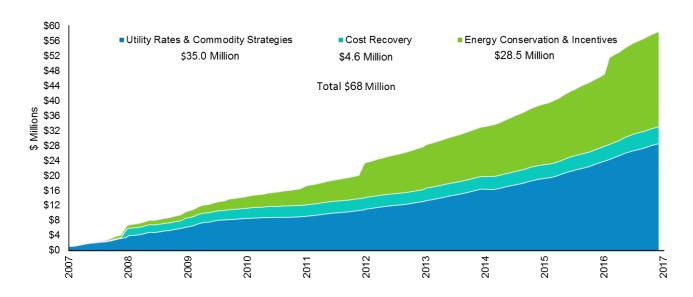


Figure A-2: Three Year Comparison Energy Programs and Strategies

	Past 3 Years				2006-2017		
Category	2015		2016		2017		Cumulative
Levy RPP/Interval Change	\$ -	\$	-	\$	-	\$	2,886,651
Rate RPP/Interval Change	\$ -	\$	-	\$	-	\$	2,873,163
Levy Global Adjustment	\$ 994,677	\$	1,279,622	\$	1,344,340	\$	5,138,464
Rate Global Adjustment	\$ 2,916,622	\$	3,402,587	\$	4,631,762	\$	16,951,113
Levy Natural Gas	\$ 352,603	\$	365,430	\$	446,304	\$	6,059,687
Rate Natural Gas	\$ 59,040	\$	63,111	\$	66,946	\$	1,072,607
Energy Conservation Levy	\$ 1,947,669	\$	2,008,166	\$	2,286,392	\$	16,580,539
Energy Conservation Rate	\$ 513,415	\$	513,415	\$	616,098	\$	3,095,959
Incentives	\$ 465,362	\$	3,948,039	\$	147,841	\$	8,816,185
Cash Recovery Levy	\$ 221,993	\$	593,832	\$	118,099	\$	4,364,031
Cash Recovery Rate	\$ -	\$	-	\$	-	\$	235,375
Totals	\$ 7,471,381	\$	12,174,201	\$	9,657,781	\$	68,073,774

#### **Overall Consumption, Costs and Performance (Electricity and Natural Gas)**

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

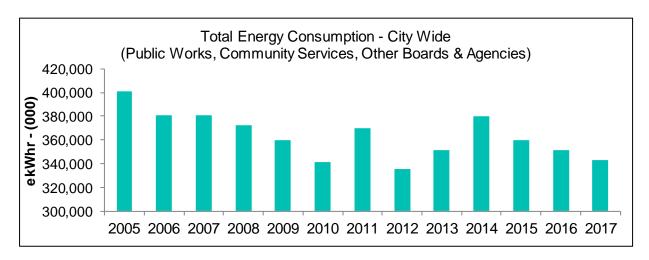


Figure A-4: Total Annual Reported Costs Electricity and Natural Gas (Facilities)

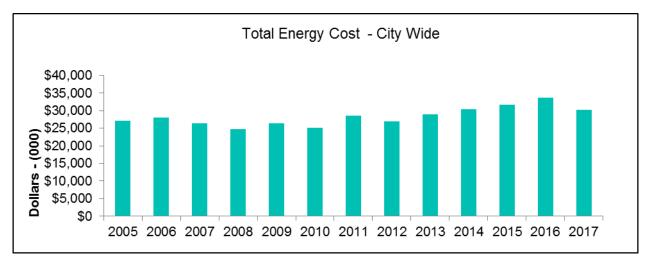


Figure A-5: Total Consumption Comparison by Portfolio Category

Total Energy	in 00	in 000's of ekWhs			arisons
				2017 vs	2017 vs
Consumption	2005	2016	2017	2005	2016
City/Town Halls	13,775	8,242	8,271	-40%	0%
Corporate Facilities	17,188	8,147	6,394	-63%	-22%
Street Lighting	33,603	26,775	26,920	-20%	1%
Traffic Lighting	5,688	2,022	2,067	-64%	2%
Other City Operations	5,618	5,687	4,689	-17%	-18%
Hamilton Water	121,040	122,873	124,461	3%	1%
Yards	39,589	28,068	25,104	-37%	-11%
Arenas	39,904	34,656	34,204	-14%	-1%
Community/Senior Centers	3,834	3,452	3,337	-13%	-3%
Rec Centres/Pools	26,789	27,221	26,986	1%	-1%
Tim Horton's Field	0	8,248	7,424	0%	-10%
Rec Parks/Stadiums/Golf	8,332	5,993	4,666	-44%	-22%
Lodges (Macassa, Wentworth)	24,938	16,097	15,672	-37%	-3%
Culture	5,383	4,643	4,728	-12%	2%
Fire/ EMS	10,698	12,538	12,346	15%	-2%
Hamilton Public Libraries	9,343	10,559	10,479	12%	-1%
First Ontario Centre	10,122	9,840	9,160	-10%	-7%
Hamilton Convention Centre	4,656	3,541	3,712	-20%	5%
First Ontario Concert Hall	5,466	4,363	4,658	-15%	7%
Hamilton Police Services	14,757	8,688	8,067	-45%	-7%
City Wide Total	400,722	351,654	343,345	-14%	-2%

Figure A-6: Total Cost Comparison by Portfolio Category

Total Energy-\$		in 000's of \$			arisons
				2017 vs	2017 vs
Cost	2005	2016	2017	2005	2016
City/Town Halls	\$860	\$710	\$690	-20%	-3%
Corporate Facilities	\$866	\$732	\$554	-36%	-24%
Street Lighting	\$2,895	\$5,302	\$5,010	73%	-6%
Traffic Lighting	\$462	\$381	\$358	-23%	-6%
Other City Operations	\$534	\$916	\$700	31%	-24%
Hamilton Water	\$9,590	\$11,892	\$10,488	9%	-12%
Yards	\$2,205	\$2,057	\$1,636	-26%	-20%
Arenas	\$2,455	\$2,950	\$2,896	18%	-2%
Community/Senior Centers	\$224	\$269	\$248	11%	-8%
Rec Centres/Pools	\$1,192	\$1,556	\$1,468	23%	-6%
Tim Horton's Field	\$0	\$917	\$704	0%	-23%
Rec Parks/Stadiums/Golf	\$564	\$362	\$401	-29%	11%
Lodges (Macassa, Wentworth)	\$1,087	\$1,109	\$877	-19%	-21%
Culture	\$338	\$281	\$281	-17%	0%
Fire/ EMS	\$614	\$983	\$896	46%	-9%
Hamilton Public Libraries	\$827	\$909	\$851	3%	-6%
First Ontario Centre	\$840	\$979	\$880	5%	-10%
Hamilton Convention Centre	\$387	\$254	\$268	-31%	6%
First Ontario Concert Hall	\$454	\$304	\$324	-29%	6%
Hamilton Police Services	\$783	\$804	\$749	-4%	-7%
City Wide Total	\$27,177	\$33,667	\$30,277	11%	-10%

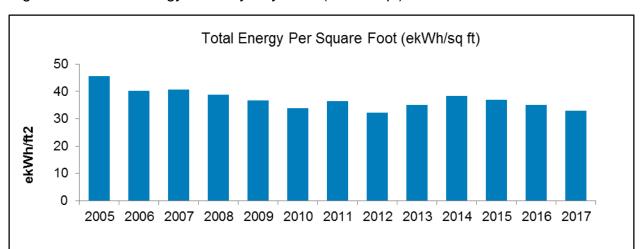


Figure A-7: Total Energy Intensity City-wide (ekWh/sqft)

The following series of graphs break down the energy intensity results per site for 2017 within their specific portfolio category. Energy intensity is calculated by using the equivalent kilowatt-hours (ekWh) divided by the reported square footage (sqft) for the site. Sites that do not have recorded square footage were removed from the energy intensity graphs below, but have been included in all cost and consumption data. Also note that the energy intensity access may be adjusted depending on grouping. (i.e. maximum 50 up to maximum 200).



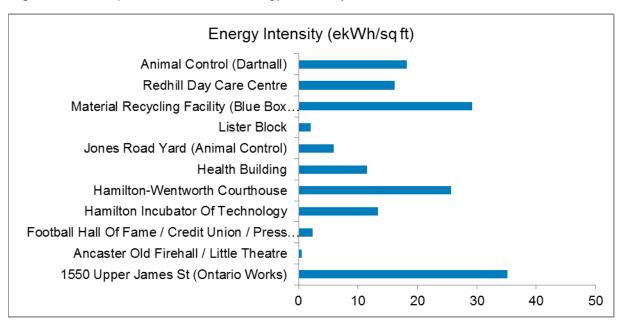


Figure A-9: City and Town Halls Energy Intensity

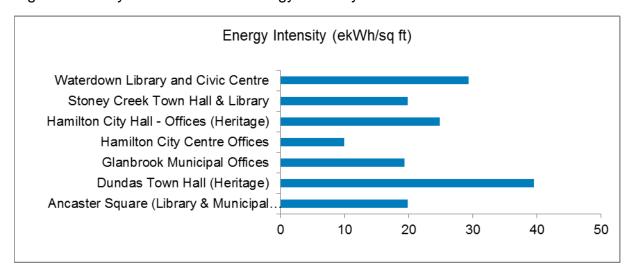


Figure A-10: Arenas Energy Intensity

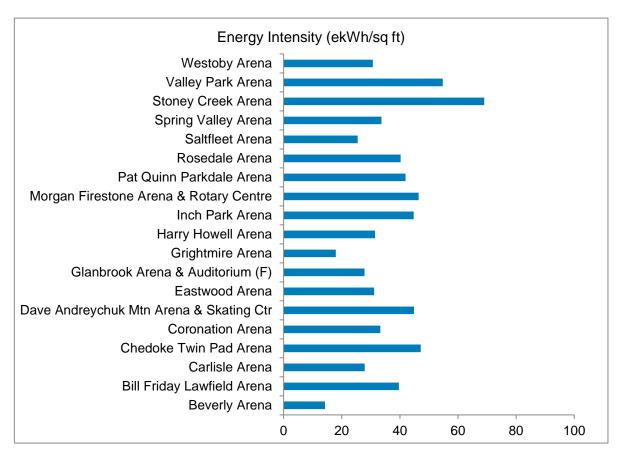
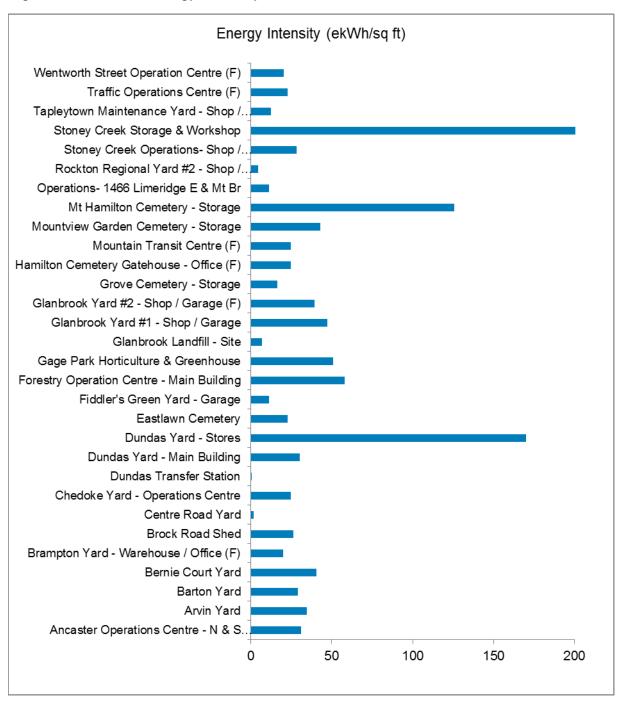


Figure A-11: Yards Energy Intensity



(F) = City fueling station, Stoney Creek Storage & Workshop has an energy intensity of 480.

Figure A-12: Community Centres Energy Intensity

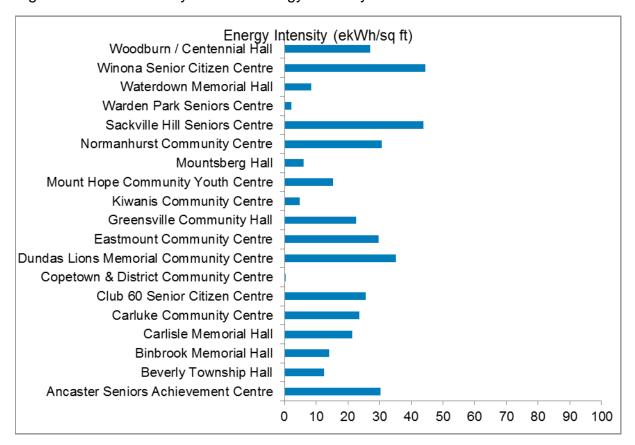


Figure A-13: Lodges Energy Intensity

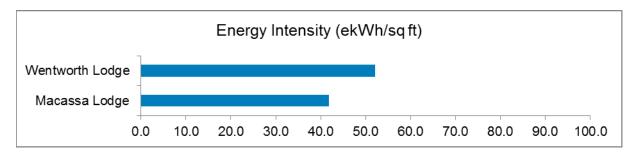
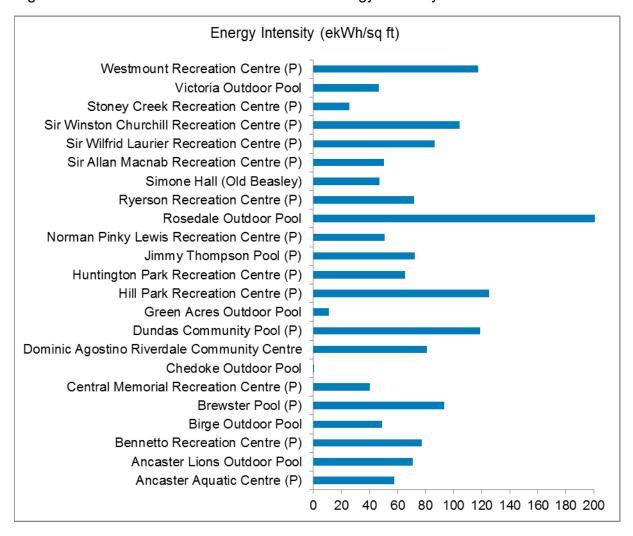
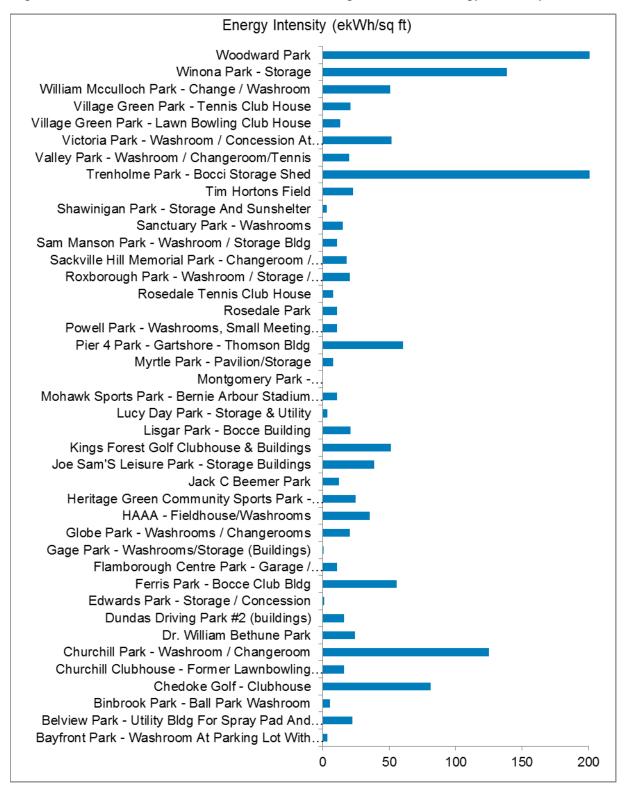


Figure A-14: Recreation Centres and Pools Energy Intensity



(P) = Pool Rosedale Outdoor Pool has an energy intensity of 302.

Figure A-15: Stadiums, Recreation Park Buildings and Golf Energy Intensity



Trenholme Park has an energy intensity of 499. Woodward Park has an energy intensity of 631.

Figure A-16: Libraries Energy Intensity

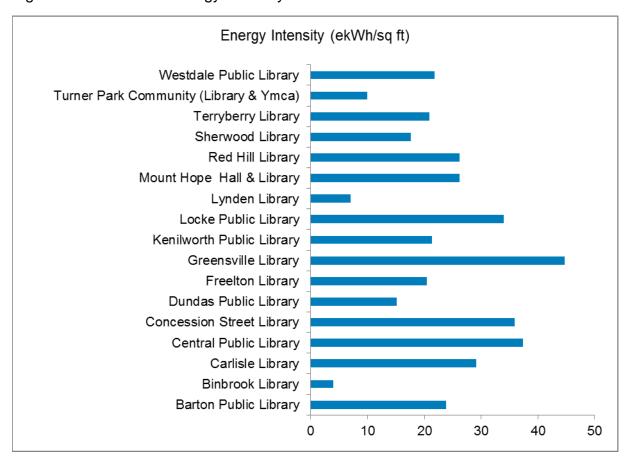


Figure A-17: Culture and Historical Energy Intensity

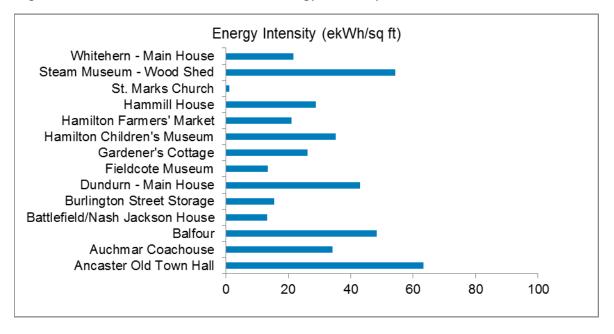
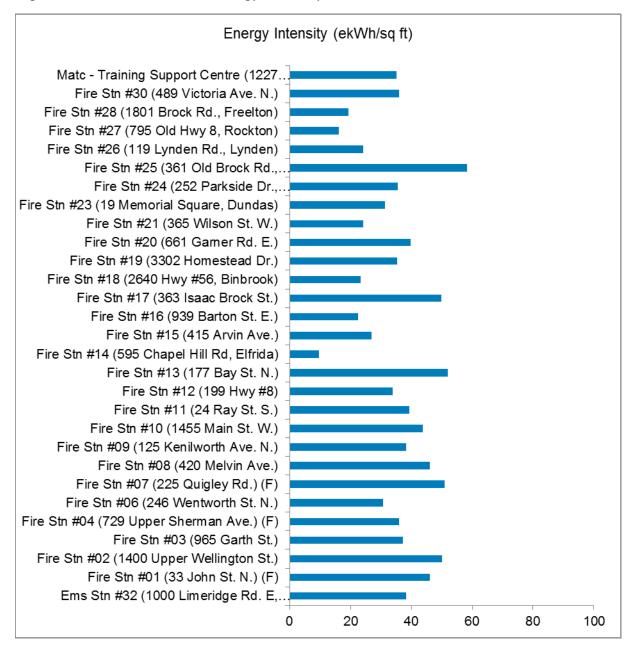


Figure A-18: EMS and Fire Energy Intensity



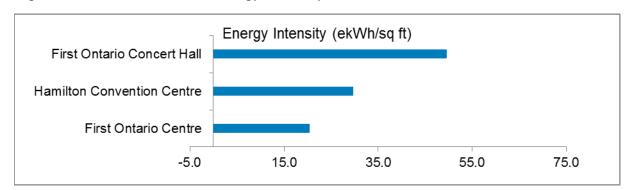


Figure A-19: Entertainment Energy Intensity

#### **Weather Data**

Weather and temperature can impact consumption of electricity, natural gas and fuel. Refering to cooling degree days and heating degree days can help to identify one reason why consumption could be up or down year over year. Cooling degree days (CDD) are a measure of how much (in degrees), and for how long (in days), outside air temperature was higher than a specific base temperature. Heating degree days (HDD) are a measure of how much, and for how long the outside air temperature was lower than a specific base temperature. The City tracks degree day data from Environment Canada.

Figure A-20: 2017 Weather Data from Environment Canada for Hamilton: (Weather Station: YHM)

Month	Mean Temp	HDD	CDD	2017 vs 2016 HDD	2017 vs 2016 CDD
Jan-17	-2.2	625.4	0	-9%	
Feb-17	-0.1	505.3	0	-16%	
Mar-17	-0.8	582	0	23%	
Apr-17	8.6	281.6	0	-32%	
May-17	11.6	200.3	6.7	28%	-75%
Jun-17	18.6	33.1	50.6	-9%	1%
Jul-17	20.5	0.7	76.7	-50%	-39%
Aug-17	18.7	22.2	42.5	100%	-70%
Sep-17	17.3	67.8	47.3	65%	13%
Oct-17	12.7	171.4	5.4	-21%	15%
Nov-17	2.8	424.4	0	19%	
Dec-17	6	694.7	0	10%	
2017 Annual Total		3608.9	229.2	0%	-41%



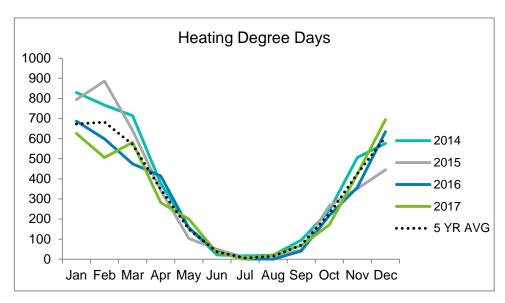
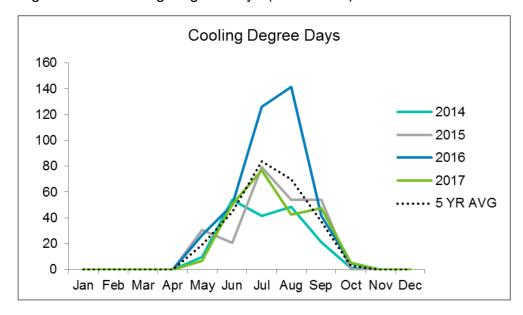


Figure A-22: Cooling Degree Days (2014-2017)



# **Global Adjustment**

Electricity commodity has two components, the Hourly Ontario Energy Price (HOEP) and the Global Adjustment (GA).

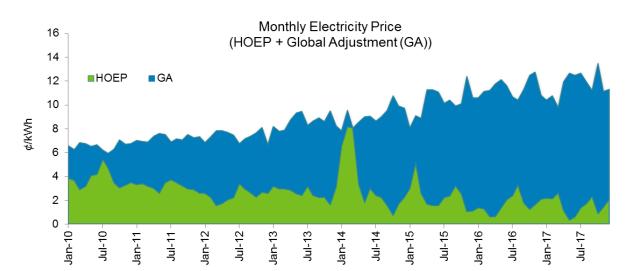


Figure A-23: Electricity Monthly Prices (HOEP and GA)

The majority of consumers are class B, but larger high-demand sites may qualify for class A. Class A sites within the City include 900 Woodward; 850 Greenhill; 111 Kenilworth; 1579 Burlington St.; FirstOntario Centre; CUP Operations; and Tim Hortons Field.

Figure A-24: 2017 Class A Global Adjustment Results

2017	ndard Global stment Charge	tual Global tment Charge	Co	est Benefit
Jan	\$ 640,173	\$ 340,821	\$	299,352
Feb	\$ 619,196	\$ 314,009	\$	305,187
Mar	\$ 602,778	\$ 284,424	\$	318,354
Apr	\$ 898,794	\$ 356,674	\$	542,120
May	\$ 1,046,579	\$ 423,326	\$	623,253
Jun	\$ 981,185	\$ 446,490	\$	534,696
Jul	\$ 1,036,511	\$ 380,390	\$	656,122
Aug	\$ 919,910	\$ 357,246	\$	562,663
Sep	\$ 780,642	\$ 284,960	\$	495,682
Oct	\$ 1,069,211	\$ 381,466	\$	687,745
Nov	\$ 803,816	\$ 317,483	\$	486,333
Dec	\$ 819,712	\$ 355,117	\$	464,595
Total	\$ 10,218,507	\$ 4,242,405	\$	5,976,103

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Figure A-25: Globa	l Adiustment Class	A Results	(2011-2017)

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
Total	\$	45,134,173	\$	23,056,237	\$	22,077,936

## Peak Days - 2017

Peak day tracking is extremely important for Class A assets. Class A GA charges are calculated based on a percentage of usage during peak hours during the peak setting period. Public Works personnel work collaboratively to manage peak events. The Office of Energy Initiatives use tools to predict peak times and notify front line staff such as Hamilton Water operations staff and Corporate operations staff to shift processes to off peak times and/or minimize usage during these peak periods.

Figure A-26: Top 10 Ontario Demand Peaks from (May 1, 2017 to April 30, 2018)

Rank	Date	Hour Ending (EST)	Adjusted AQEW (MW)
1	25-Sep-17	17	21,171
2	26-Sep-17	17	21,039
3	12-Jun-17	17	20,702
4	05-Jan-18	18	20,238
5	19-Jul-17	18	20,123
6	06-Jan-18	18	20,046
7	24-Sep-17	17	19,898
8	03-Jan-18	18	19,887
9	06-Jul-17	18	19,869
10	13-Dec-17	18	19,860

AQEW = Adjusted Allocated Quantity of Energy Withdrawn. These values are published 20 business days after the trade date and only the highest demand hour of the day is used. Source Data: IESO/Peak Tracker for Global Adjustment Class A (as of 5 April 2018)

#### **Fuel**

Figure A-27: Fuel Usage by User Group

Group	Diesel Litres	Unleaded Litres	CNG DLE	Total (DLE)
Energy, Fleet & Facilities	43,219	111,286	-	154,504
Engineering Services	1	39,419	1	39,419
Environmental Services	1,060,757	406,579	1	1,467,336
Hamilton Water	179,777	198,903	1	378,680
Operations	1,278,134	276,077	1	1,554,210
Transportation	88,406	49,140	1	137,546
Other	336,341	963,037	1	1,299,378
Transit	6,417,774	94,007	4,195,759	10,707,540
Totals	9,404,408	2,138,446	4,195,759	15,738,613

Notes for Clarification on above table:

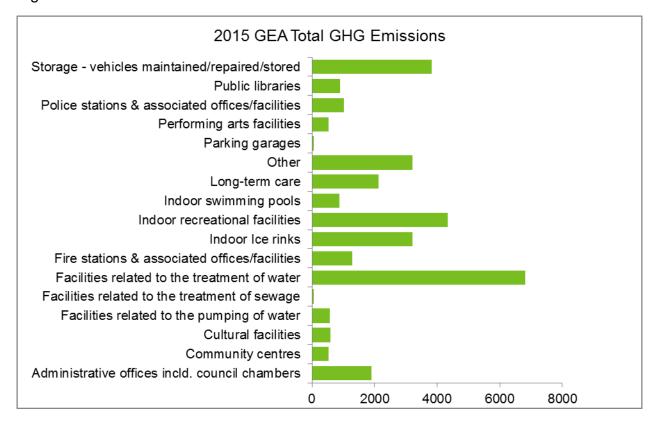
- 1) Transit Includes Transit Operations, Route Planning and Transit Yard Support.
- 2) Operations includes Waste Management, Landfill, Roads and Support Services
- 3) The "Other" group includes Fire and EMS, Public Health, Recreation, Tourism and Culture, Library, By-Law Services, Mayor's Office, City Clerk's Office and Information Services.
- 4) Does not include Police.

## **Green Energy Act (GEA) Reporting**

The City is required to report to the provincial government on its energy use as part of the adherence to the Green Energy Act (GEA). The most recent data set submission was for the 2015 calendar year, According to the GEA's reporting formula, the Cityowned corporate facilities are responsible for omitting 31,887 tonnes of Carbon dioxide (CO<sub>2</sub>e). It should be noted that the GEA facility type reporting categories are pre-set and do vary from the City's internal reporting categories. However, they do continue to represent corporately-owned assets only.

Figure A-28 below shows the data that was submitted for the 2015 reporting year in the GEA facility categories.

Figure A-28: 2015 GEA Total GHG Emissions Tonnes



For additional information on City of Hamilton energy policies and the relevant reports referenced herein, see: <a href="https://www.Hamilton.ca/energy">www.Hamilton.ca/energy</a>.

Glossarv

## Common Acronyms used throughout the report:

CAFE = corporate average fuel economy

CDD = cooling degree days

CNG = compressed natural gas

 $CO_2$  = carbon dioxide

 $CO_2e$  = carbon dioxide equivalent

DLE = diesel litre equivalent

ekWh = equivalent kilowatt-hours

GA = Global Adjustment

GEA = Green Energy Act

GHG = greenhouse gas

GJ = gigajoule

HDD = heating degree days

HOEP = Hourly Ontario Energy Price

HRPI = Hamilton Renewable Power Inc.

IESO = Independent Electricity System Operator

KPI = key performance indicator

kW = kilowatt

kWh = kilowatt-hour

LED = light emitting diode

 $M^3$  = cubic metres

OEB = Ontario Energy Board

 $tCO_2e = tonnes carbon dioxide equivalent$ 

#### 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.



# INFORMATION REPORT

TO:	Chair and Members Public Works Committee					
COMMITTEE DATE:	May 14, 2018					
SUBJECT/REPORT NO:	Everyone Rides Initiative Pilot Project (City Wide) (PED18108) (Outstanding Business List Item)					
WARD(S) AFFECTED:	City Wide					
PREPARED BY:	Peter Topalovic (905) 546-2424 Ext. 5129					
SUBMITTED BY:	Brian Hollingworth Director, Transportation Planning and Parking Planning and Economic Development Department					
SIGNATURE:						

#### **COUNCIL DIRECTION**

On October 3, 2016, at the Public Works Committee and, subsequently, at Council on October 12, 2016, the recommendations pertaining to the bike share equity program called the Everyone Rides Initiative (ERI) were approved (Report PW16068). This initiated a three-year pilot program. The program is funded by the City through the existing Transportation Demand Management and Smart Commute Account and Barton-Kenilworth Urban Renewal (40%), in partnership with grant money from the Federation of Canadian Municipalities Green Municipal Fund (50%) and the Hamilton Community Foundation (10%). This pilot is progressing well and its successes are reported on annually in the Sustainable Mobility Programs Annual Report, which is provided to Council every June through an Information Update.

This purpose of this Report is to address two subsequent recommendations that are unrelated to the ERI pilot, but were directed by Councillors at the Public Works Committee Meeting on October 3, 2016. At the Council meeting on October 12, 2016, the following recommendations were added:

"(a) That sub-sections (c) and (d) be referred back to Public Works so that the appropriate staff may meet with Hamilton Bike Share Inc. and assist where applicable with the organization's financial statements; and,

# SUBJECT: Everyone Rides Initiative Pilot Project (City Wide) (PED18108) - Page 2 of 4

(b) That the Public Works and Finance and Corporate Services staff review the Terms of Reference agreement between SoBi Bicycles Inc., New York City, and the City of Hamilton and Metrolinx, with a report back to the appropriate committee on this agreement."

On April 3, 2017, a subsequent report to Public Works Committee (Report PW16068(a)) responded to the amended items (a) and (b). However, at this meeting there were additional questions regarding the relationship between the various operators of Bike Share and the City and the Report was referred back to staff. Following that Committee meeting, staff offered to meet with all Councillors before reporting back with a new Report. Subsequently, staff met with the following Councillors individually or in small groups: Farr (Ward 2), Green (Ward 3), Merulla (Ward 4), Collins (Ward 5), Jackson (Ward 6), Skelly (Ward 7), Ferguson (Ward 12), Vanderbeek (Ward 13), and a representative from Councillor Whitehead's Office (Ward 8), as well as with Mayor Eisenberger and his staff.

#### INFORMATION

(a) The structure and reporting relationship between the City, SoBi Incorporated and Hamilton Bike Share Incorporated.

Through the request for proposals process Social Bicycles Inc. (SoBi Inc.) was chosen as the successful proponent to supply shared bicycles, provide data support and system functionality and operate the system. They sub-contract the operations to a local non-profit organization; Hamilton Bike Share Incorporated (HBSI). SoBi Inc. and HBSI are responsible for all operating profits and losses. An illustration of the relationship between the City, SoBi Inc. and HBSI is provided in Appendix "A" to Report PED18108. The request for proposal (RFP) and Operations Contract followed the City's standard for construction contracts for road projects. Since no operational funding was being given to SoBi Inc., there was no requirement for audited financial statements. City staff's review of other North American bike share systems found that this is consistent with industry practices. If no operating funds were part of the operations contract, then no audited financial statements were required of the operator.

(b) Confirmation that there is no levy impact due to bike share operational requirements.

Questions were asked at the Public Works Committee and in follow-up meetings with Councillors relating to operational funding. There is no requirement for any City funding for bike share operations under the obligations of the RFP and contract with SoBi Inc., which expires in February, 2019. The five-year operations contract may be renewed for two additional times at five year increments. City staff is working with SoBi Inc. and HSBI to enhance the system between 2018 and 2024. A priority aspect of this work is to secure a system sponsor, which would

# SUBJECT: Everyone Rides Initiative Pilot Project (City Wide) (PED18108) - Page 3 of 4

cover the operations for a five-to-ten year period. Revenue from a system sponsor could be used to start a reserve account for bike share equipment replacement. A sponsor is currently being sought through a partnership with City Manager's Office relating to revenue generation and SoBi Inc.

Further to the discussion around operating costs of the system, there were some questions relating to the \$1.6 M provided through the Metrolinx Quick Wins Program. This funding program was only applicable to Capital projects, such as new transit fleet vehicles or bicycle racks on buses etc. and not intended for related operational expenditure. As such, the funding was used to fund the original Capital expenditure for bike share only — it was not used for system operations and no City dollars have been used for operations since. City staff support the bike share as it is part of the Sustainable Mobility Programs and ensure bike share directly meets mobility goals and targets. However, this support does not include operations — it is limited to contract management, performance measurement, auditing, station location siting, data analysis, system planning, communications and marketing, citizen engagement, grants and media relations.

(c) Clarification and best practice regarding replacement costs of bike share bicycles.

A review of North American cities with bike share systems was conducted by City staff. The results of this review showed that most cities interviewed do not include Capital replacement cost provisions. Most systems rely on grants from all levels of governments and foundations to assist with the expansion of bike share system and the replacement of any capital. Hamilton's bike share system will continue to search for additional grants and foundation support for Capital enhancements and replacement. This strategy compliments the search for a long-term system sponsor and research into other revenue tools that could assist with Capital enhancement and expansion, such as development charges.

#### **NEXT STEPS**

The current bike share service area is an extended version of the original planned area and is shown in Appendix "B" to Report PED18108. Hamilton has a similar or larger service area (thirty-five square kilometres) compared to other jurisdictions such as Toronto (forty square kilometers), Vancouver (fifteen square kilometres), and Portland (thirty square kilometres), which is also illustrated in Appendix "B" to Report PED18108. This larger service area has resulted in not achieving industry best practice for density of bicycles and stations. However, as identified above in this Report, obtaining grants will assist with the improvement of densities, thereby reducing system operating costs.

Despite the above, the success of Hamilton's bike share system has resulted in expansion pressures for the system. Specifically, there is pressure for expansion east to Kenilworth Avenue, south to include the Mountain Brow neighbourhoods' in Wards 6, 7 and 8, as well as expansion towards Burlington to coincide with a potential system

# SUBJECT: Everyone Rides Initiative Pilot Project (City Wide) (PED18108) - Page 4 of 4

there. Appendix "C" to Report PED18108 depicts these expansion pressures. Early exploratory meetings with Metrolinx and the City of Burlington are taking place to investigate the potential system creation and integration with Hamilton's system, including funding sources and partnership details.

Appendix "D" to Report PED18108 contains the Hamilton Bike Share timeline 2010 – 2017, which was presented to Councillors during the individual meetings.

The item respecting the Everyone Rides Pilot Project shall be identified as complete and removed from the Public Works Committee Outstanding Business List.

#### APPENDICES AND SCHEDULES ATTACHED

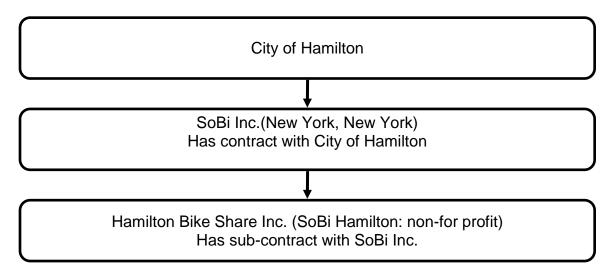
Appendix "A" - Relationship Structure - City, SoBi Inc. and HBSI

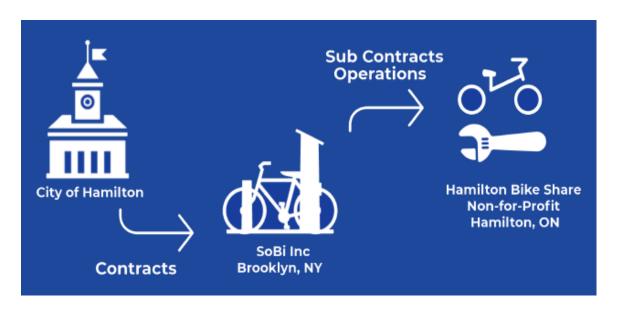
Appendix "B" - Planned vs. Implemented Bike Share Service Area

Appendix "C" - Potential Expansion Areas - Hamilton Bike Share System

Appendix "D" - Hamilton Bike Share Timeline

# Relationship structure between City, SoBi Inc., and HBSI





# Planned vs. Implemented Bike Share Service Area



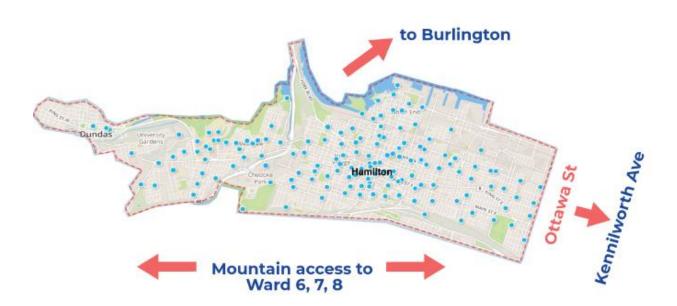


# Comparison of Bike Share Service Areas

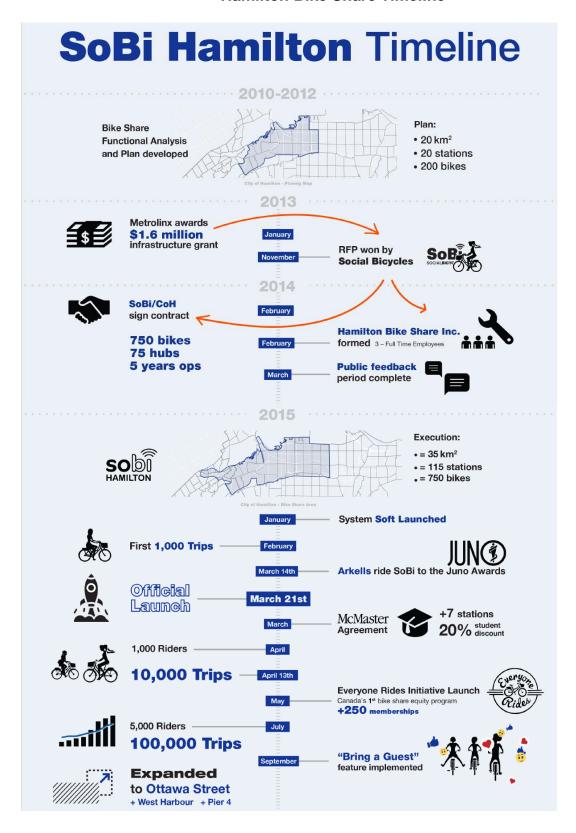


Potential expansion areas for the Hamilton bike share system

# Current Service Area & Potential Areas of Expansion



#### **Hamilton Bike Share Timeline**





May 4, 2018

James Lafferty 2020 Corlis Road Binbrook, Ontario <u>Jlafferty1 @rogers.com</u>

Ph: 289 456 8323

To: Lauri Leduc

Legislative Coordinator Office of the City Clerk

RE: Corlis Road Damage by Contractor

Corlis road was a small access road used by The Corlis Farm to get into town in the 1900s. I have lived on corlis since 1989. There is one other neighbour. We have both been to meetings with Southbrook and the Glanbrook Township many times with respect to applications Southbrook Golf have submitted over the years to have their entrance moved from RR56 to Corlis Road. This was overturned by council and the issue was closed.

# Issues With Corlis Road

- (1) Road damaged by dump trucks/bulldozer
- (2) Industrial garbage bins (2) on side of road
- (3) 100s of trucks for over 4 weeks and job still not done
- (4) Drainage from north side not there
- (5) Estimate of dirt (100 trucks/day x 29 days = 2900 trucks
- (6) Why roads telling contractor to repair road when no permit issued
- (7) Sign for weight restriction needed
- (8) Land east side not farmed and south side 4 acres of dirt for 6 years.

## Points To Be Discused

- (1) Trucks have been an issue for over 8 years. Bulldozer on road leaves tracks. No stone left on road making it create a dust storm that gets into the pool and we can't open windows when it's a north wind.
- (2) Beginning in May (2) two industrial garbage bins have been moved to the side of the road in view of our homes. Concern also for animals as coyotes are prevalent in this area at night and its unsightly.
- (3) Last summer trucks ran most of the summer with possibly 10,000 trucks. These trucks are for filling land across the street from our homes. There is 3 entrances into Southbrook with the possibility of access to the property off Hall road.
- (4) On or about 2006 Southbrook constructed a 3 acre pond 300 meters from our house. By 2011 the soil pile from the pond was graded to slope from the pond to my front lawn causing flooding on the lawn. The contractor at the time (Randy) was asked to fix this but has not.
- (5) Estimate of how many truck loads would be needed to finish the job. Dirt from the pond would have been suffice. Also to be noted the land is also regulated by Niagara Parks (NPCA).
- (6) The roads department told the contractor to repair the road when he was done. This seems unusual because the contractor doesn't have the equipment or knowledge to tackle the task. Would this not be union work the city is asking contractors to complete?
- (7) The construction of the road is not designed for heavy trucks. I would like to suggest a weight limit sign to deter future trucks from unauthorized access. Blockages were needed in the past.
- (8) The land across the street used to be a nice entrance with grass. It has become 6 acres of weeds and dirt for some years. The 3 or 4 acres of field on the east side used to be farmed is now weeds.

## History of involvement

March 15 - trucks start 7 days a week. Called city

March 20 - contractor came to my door

Called city again

Called back at 3:30 to advise about by-law

April 5 - called city April 6 - called city

April 11 - emailed councillor

April 12 - trucks stop

April 19 - called Carlo in Growth Management. He was to dispatch

Roads department and they will call me. Nothing to date.

It is my hope today to come to an agreement that Southbrook:

Stop dump trucks using Corlis road to dump.

- That the road be reinstated to original height and surface (stone and tar).
- That the original issue of leveling the entrance (6 acres) be completed.
- 4. Drainage from east land be corrected
- 5. Culvers be installed/repaired on north side of corlis
- 6. Owner advise neighbours of applications to city

This is a brief of my presentation. Any missed information please let me know. I don't anticipate another speaker. I will provide an electronic handout prior to May 14.

Sincerely,

James Lafferty

# CITY OF HAMILTON

# **MOTION**

Public Works Committee Date: May 14, 2018

MOVED BY COUNCILLOR D. CONLEY	
SECONDED BY COUNCILLOR	

#### **Investment Stabilization Reserve Funded Projects – Athenia Drive (Ward 9)**

WHEREAS, modern winters appear to have accelerated the deterioration of Athenia Drive from Amberwood Street to Athenia Drive, as a result of increased frequency of freeze/thaw cycles and more extreme variability of temperatures; and,

WHEREAS, the City of Hamilton has current competitively bid projects and prices available as a base for comparison and negotiation that can be used to ensure value for money on the award of the proposed works, and,

WHEREAS, given the current resources along with the time needed to complete a tender and award process, road improvements cannot be addressed within the City's normal process manner during the 2018 construction process;

#### THEREFORE BE IT RESOLVED:

- (a) That Athenia Drive, at an estimated cost of \$900,000, be rehabilitated using asset preservation practices, with the work to include the rehabilitation of the existing asphalt with repaving; and,
- (b) That the Ward 9 allocation, in the amount of \$900,000 (Project ID 4031811809) and previously approved and funded from the Investment Stabilization Reserve (No. 112300), be utilized to fund the asset preservation of Athenia Drive from Amberwood Street to Athenia Drive, and,

- (c) That upon project completion, should any surplus funding be generated, that the same be transferred to the Ward 9 road maintenance being project no. 4031611609, and,
- (d) That the General Manager of Public Works be authorized to procure all or some of the proposed works identified through Procurement Policy #11 Non-Competitive Procurements, where deemed appropriate, to expedite the works for this construction season.