



City of Hamilton
PUBLIC WORKS COMMITTEE
AGENDA

Meeting #: 23-013
Date: September 18, 2023
Time: 1:30 p.m.
Location: Council Chambers
Hamilton City Hall
71 Main Street West

Carrie McIntosh, Legislative Coordinator (905) 546-2424 ext. 2729

	Pages
1. CEREMONIAL ACTIVITIES	
2. APPROVAL OF AGENDA	
(Added Items, if applicable, will be noted with *)	
3. DECLARATIONS OF INTEREST	
4. APPROVAL OF MINUTES OF PREVIOUS MEETING	
4.1 September 8, 2023	4
5. COMMUNICATIONS	
6. DELEGATION REQUESTS	
7. DELEGATIONS	
7.1 Sean Forde respecting Concerns about the change in the schedule for the buses to Stoney Creek (approved September 8, 2023)	
8. STAFF PRESENTATIONS	
9. CONSENT ITEMS	

9.1	2022 Annual Energy Report (PW21049(b)) (City Wide)	23
9.2	Accessible Transportation Services Quarterly Performance Report (PW22079(d)) (City Wide)	69
9.3	In-Service Road Safety Review of the Upper Paradise Road between Stone Church Road and Rymal Road Corridor (PW23059) (Ward 14) (Outstanding Business List Item)	86
9.4	Accessible Transportation Services Contractor (DARTS) Fleet Budget (PW23060) (City Wide)	98

10. PUBLIC HEARINGS / DELEGATIONS

11. DISCUSSION ITEMS

11.1	Cootes Drive Street Lighting TransCanada PipeLines Limited Crossing Agreement (PW23057) (Ward 13)	102
11.2	Funds Required for Award of Tender C15-43-23 (P) Alexander Park - Construction of a Skatepark Facility (PW23058) (Ward 1) (Ward13)	106
11.3	Management of the Aviary at 85 Oak Knoll Drive (PW23062) (Ward 1) (Outstanding Business List Item)	111

12. MOTIONS

12.1	Consultation and Assessment of Transit Route Options as it relates to the Retirement of Route 58 Stoney Creek Local (Ward 5)	122
------	--	-----

13. NOTICES OF MOTION

14. GENERAL INFORMATION / OTHER BUSINESS

14.1 Amendments to the Outstanding Business List

a. Items Considered Complete and Needing to be Removed:

a. Upper Paradise Road In-Service Road Safety Review (Ward 14)

Addressed as Item 9.3 on today's agenda - Report PW23059

Item on OBL: ADL

b. Management of the Aviary at 85 Oak Knoll Drive

Addressed as Item 11.3 on today's agenda - Report
PW23062
Item on OBL: AAY

b. Items Requiring a New Due Date:

a. Opportunities to partner with Educational Institutions
to Plant Trees

Item on OBL: ADR
Current Due Date: October 2, 2023
Proposed New Due Date: October 30, 2023

15. PRIVATE AND CONFIDENTIAL

15.1 Closed Session Minutes - September 8, 2023

Pursuant to Section 9.3, Sub-section (k) of the City's Procedural By-law 21-021, as amended, and Section 239(2), Sub-section (k) of the *Ontario Municipal Act*, 2001, as amended, as the subject matter pertains to a position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the municipality or local board.

16. ADJOURNMENT

4.1



**PUBLIC WORKS COMMITTEE
MINUTES 23-012**

1:30 p.m.

Friday, September 8, 2023

Council Chambers

Hamilton City Hall

71 Main Street West

Present: Councillors N. Nann (Chair), E. Pauls (Vice-Chair), J. Beattie, C. Cassar, J.P. Danko, M. Francis, T. Jackson, C. Kroetsch, T. McMeekin, M. Spadafora, M. Tadeson, A. Wilson and M. Wilson

THE FOLLOWING ITEMS WERE REFERRED TO COUNCIL FOR CONSIDERATION:

1. Burlington Street Sewage Spill Update (PW22088(b)) (City Wide) (Item 8.1)

(Kroetsch/A. Wilson)

- (a) That the Hamilton Water Divisional staff complement be increased by 12 permanent full-time equivalents; and that the 12 additional full-time equivalents be used to resource the new sewer sampling program, the enhanced sewer inspection program and to mitigate other risks to the wastewater program as outlined in Report PW22088(b), funding through the 2023 Hamilton Water Divisional gapping; and,
- (b) That future operating costs as outlined in Report PW22088(b) be referred to the 2024 Rate budget.

Result: MOTION, CARRIED by a vote of 12 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson

Not Present – Ward 14 Councillor Mike Spadafora
Yes – Ward 15 Councillor Ted McMeekin

2. Procedural Changes Resulting from Chedoke Creek and Burlington Street Combined Sewage Discharge Incidents (PW23056) (City Wide) (Outstanding Business List Item) (Item 9.1)

(M. Wilson/Cassar)

That Report PW23056, respecting Procedural Changes Resulting from Chedoke Creek and Burlington Street Combined Sewage Discharge Incidents, be received.

Result: MOTION, CARRIED by a vote of 12 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
Yes – Ward 2 Councillor Cameron Kroetsch
Yes – Ward 3 Councillor Nrinder Nann
Yes – Ward 5 Councillor Matt Francis
Yes – Ward 6 Councillor Tom Jackson
Yes – Ward 7 Councillor Esther Pauls
Yes – Ward 8 Councillor J. P. Danko
Yes – Ward 10 Councillor Jeff Beattie
Yes – Ward 11 Councillor M. Tadeson
Yes – Ward 12 Councillor Craig Cassar
Yes – Ward 13 Councillor Alex Wilson
Not Present – Ward 14 Councillor Mike Spadafora
Yes – Ward 15 Councillor Ted McMeekin

3. Proposed Permanent Closure and Sale of a Portion of Concession 6 Road West, Flamborough (PW23054) (Ward 12) (Item 10.1)

(Cassar/A. Wilson)

- (a) That the application of the owner of 1165 Highway 8, Flamborough, to permanently close and purchase a portion of Concession 6 Road West, Flamborough (“Subject Lands”), as shown on Appendix "A", attached to Report PW23054, be approved, subject to the following conditions:
- (i) That the City Solicitor be authorized and directed to prepare all necessary by-laws to permanently close and sell the highway, for enactment by Council;
 - (ii) The Corporate Real Estate Office of the Planning and Economic Development Department be authorized and directed to enter into any requisite easement agreements, right of way agreements, and/or other agreements deemed necessary to affect the orderly disposition of the Subject Lands and to proceed to sell the Subject

Lands to the owners of 1165 Highway 8, Flamborough, as described in Report PW23054, in accordance with the City of Hamilton Sale of Land Policy By-law 14-204;

- (iii) The City Solicitor be authorized to complete the transfer of the Subject Lands to 1165 Highway 8, Flamborough pursuant to an Agreement of Purchase and Sale or Offer to Purchase as negotiated by the Corporate Real Estate Office of the Planning and Economic Development Department;
- (iv) That the City Solicitor be authorized and directed to register a certified copy of the by-law(s) permanently closing and selling the highway in the proper land registry office;
- (v) That the City Solicitor be authorized to amend and waive such terms as they consider reasonable to give effect to this authorization and direction;
- (vi) That the Public Works Department publish any required notice of the City's intention to pass the by-laws and/or permanently sell the closed highway pursuant to the City of Hamilton Sale of Land Policy By-law 14-204;
- (vii) That the applicant be fully responsible for the deposit of a reference plan in the proper land registry office, and that said plan be prepared by an Ontario Land Surveyor to the satisfaction of the Manager, Geomatics and Corridor Management Section, and that the applicant also deposit a reproducible copy of said plan with the Manager, Geomatics and Corridor Management Section.

Result: MOTION, CARRIED by a vote of 12 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Not Present – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

**4. Proposed Permanent Closure and Sale of Crescent Road, Hamilton
(PW23053) (Ward 14) (Item 10.2)****(Pauls/A. Wilson)**

- (a) That the applications of the owners of 921 Scenic Drive, Hamilton (Part A), 931 Scenic Drive, Hamilton (Part B), and 939 Scenic Drive, Hamilton (Part C), to permanently close and purchase a portion of Crescent Road, Hamilton abutting the rear of 921, 931, and 939 Scenic Drive, Hamilton (“Subject Lands”), as shown on Appendix "A" and “B”, attached to Report PW23053, be approved, subject to the following conditions:
- (i) That the City Solicitor be authorized and directed to prepare all necessary by-laws to permanently close and sell the highway, for enactment by Council;
 - (ii) The Corporate Real Estate Office of the Planning and Economic Development Department be authorized and directed to enter into any requisite easement agreements, right of way agreements, and/or other agreements deemed necessary to affect the orderly disposition of the Subject Lands and to proceed to sell the Subject Lands to the owners of 921 Scenic Drive, Hamilton (Part A), 931 Scenic Drive, Hamilton (Part B), and 939 Scenic Drive, Hamilton (Part C), as shown on Appendix “A” and Appendix “B” in Report PW23053, in accordance with the City of Hamilton Sale of Land Policy By-law 14-204;
 - (iii) The City Solicitor be authorized to complete the transfer of the Subject Lands to the owners of 921, 931, and 939 Scenic Drive, Hamilton (Parts A, B and C respectively) pursuant to an Agreement of Purchase and Sale or Offer to Purchase as negotiated by the Corporate Real Estate Office of the Planning and Economic Development Department;
 - (iv) That the City Solicitor be authorized and directed to register a certified copy of the by-law(s) permanently closing and selling the highway in the proper land registry office;
 - (v) That the City Solicitor be authorized to amend and waive such terms as they consider reasonable to give effect to this authorization and direction;
 - (vi) That the Public Works Department publish any required notice of the City’s intention to pass the by-laws and/or permanently sell the

closed highway pursuant to the City of Hamilton Sale of Land Policy By-law 14-204;

- (vii) That the applicant be fully responsible for the deposit of a reference plan in the proper land registry office, and that said plan be prepared by an Ontario Land Surveyor to the satisfaction of the Manager, Geomatics and Corridor Management Section, and that the applicant also deposit a reproducible copy of said plan with the Manager, Geomatics and Corridor Management Section; and
- (viii) That the net proceeds of the sale of the Subject Lands be transferred to a new ProjectID for the purpose to fund trees, beautification, park improvements and other open space improvements within Ward 14 to the satisfaction of the Manager, Parks and Cemeteries in consultation with the Ward Councillor.

Result: MOTION, CARRIED by a vote of 12 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Not Present – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

5. Free-Floating Carshare Program (PED20168(b)) (City Wide) (Outstanding Business List Item) (Item 11.1)

(Kroetsch/M. Wilson)

- (a) That the City of Hamilton continue the free-floating carshare permit program on a permanent basis in Wards 1, 2, and 3;
- (b) That the City of Hamilton expand the free-floating carshare permit program to the entire City;
- (c) That the draft Amending By-law for On-Street Parking By-law 01-218 attached as Appendix “A” to Report PED20168(b), and the draft Administrative Penalties By-law 17-225 attached as Appendix “B” to Report

PED20168(b), which have been prepared in a form satisfactory to the City Solicitor, be approved; and

- (d) That staff be directed to explore opportunities to make available a limited supply of parking spaces on residential streets with Parking by Permit Only restrictions for free-floating carshare parking.

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

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Not Present – Ward 14 Councillor Mike Spadafora
 Not Present – Ward 15 Councillor Ted McMeekin

6. Hamilton Water Financial Plan (PW23055) (City Wide) (Item 11.2)

(Cassar/M. Wilson)

- (a) That the Hamilton Water Financial Plan for the City of Hamilton drinking water systems, attached as Appendix “A” to Report PW23055, and as prescribed by Ontario Regulation 453/07, be approved by a resolution that the City of Hamilton drinking water systems have the resources necessary to operate successfully over the next ten years based on current projections.
- (b) That the Hamilton Water Financial Plan, attached as Appendix “A” to Report PW23055, be released for public review and submitted to the Ontario Ministry of Municipal Affairs and Housing as required by Ontario Regulation 453/07 under the *Safe Drinking Water Act, 2002*.

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

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 6 Councillor Tom Jackson

Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Not Present – Ward 14 Councillor Mike Spadafora
 Not Present – Ward 15 Councillor Ted McMeekin

7. Investment in Victoria Park Pool, 100 Strathcona Avenue North, Hamilton (Ward 1) (Item 12.1)

(M. Wilson/Nann)

WHEREAS, the City of Hamilton owned outdoor pool facilities in Ward 1 are maintained by Corporate Facilities & Energy Management Division, Public Works, and programmed through the Recreation Division, Healthy and Safe Communities;

WHEREAS, along with spray pads and wading pools, outdoor pools offer an important opportunity for cooling during heat alerts, and should continue to be supported in areas that need them most;

WHEREAS, the Recreation Master Plan (2022) provision model considers investment in outdoor pool locations in higher needs areas that are under-served, have growing child/youth populations and few backyard pool opportunities;

WHEREAS, the current Victoria Park outdoor pool and changeroom building are approaching the end of their respective lifecycles and are in need of major renewal;

WHEREAS, a redevelopment of the Victoria Park outdoor pool facility to accommodate accessible entries, shallower water for younger children, accessible change spaces and washrooms will draw more users to the site;

WHEREAS, the Recreation Master Plan (2022) identifies Victoria Park outdoor pool redevelopment as an outstanding recommendation of the Use, Renovation and Replacement Study for Hamilton Recreation and Public-Use Facilities (2008) and has prioritized this outdoor pool as the only site recommended for short term investment; and

WHEREAS, a feasibility study was previously conducted for the renewal of the Victoria Park outdoor pool and established three possible renovation options, one of which has been recommended by Recreation and Facility Staff and;

WHEREAS, the design phase will utilize 2024 capital budget funds with partial

funding from the Ward 1 Capital Re-Investment Reserve.

THEREFORE, BE IT RESOLVED:

- (a) That the funding for the detailed design phase of the outdoor pool renewal and accessibility upgrades at Victoria Park, 100 Strathcona Avenue North, Hamilton, at a cost, including contingency, not to exceed \$750,000 (including partial financing from the Ward 1 Capital Re-Investment Reserve (108051)), be referred to the 2024 capital budget process for consideration; and
- (b) That Public Works staff be authorized and directed to retain a Prime Design Consultant in 2024, in accordance with Procurement By-Law 21-255, to undertake detailed design of the renewal and accessible upgrades of the outdoor pool and changeroom building at Victoria Park, 100 Strathcona Avenue North, Hamilton.

Result: MOTION, CARRIED by a vote of 12 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Not Present – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

8. Corman Park Basketball Court Replacement (Ward 10) (Added Item 12.2)

(Beattie/Cassar)

WHEREAS, the basketball court at Corman Park, located at 23 Teak Street, Hamilton, is in poor condition and has been closed due to health and safety risk;

WHEREAS, there is no capital funding to support the full replacement of this park asset and additional funding is needed to support the full replacement of the basketball court;

WHEREAS, this work will be undertaken by the Parks Section capital team and completed in addition to the existing work plan and ongoing projects; and

WHEREAS, resources are limited and this work will be initiated in 2023, scheduled to be completed within 12-24 months, subject to unforeseen challenges such as procurement timing, supply chain issues, weather, etc.

THEREFORE, BE IT RESOLVED:

- (a) That the replacement of the Corman Park basketball court, located at 23 Teak Street, Hamilton, to be funded from the Ward 10 Minor Maintenance Account [4031911610] at an upset limit, including contingency, not to exceed \$110,000, be approved; and,
- (b) That the General Manager of Public Works be authorized and directed to approve and execute any and all required agreements and ancillary documents, in a form satisfactory to the City Solicitor.

Result: MOTION, CARRIED by a vote of 12 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Not Present – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

9. Transit Maintenance & Storage Facility - Cost Increase (PW23051(a) / FCS23084 (a)) (City Wide) (Item 15.1)

(Cassar/A. Wilson)

- (a) That the direction provided to staff in Closed Session, respecting Report PW23051(a)/FCS23084(a) Transit Maintenance & Storage Facility - Cost Increase, be approved and remain confidential until negotiations for the Contract are complete and the Contract is executed;
- (b) That the price of Contract C13-02-23 General Contractor Required for the Construction of Hamilton Transit Maintenance & Storage Facility be publicly reported in the applicable quarterly status report for Tenders and Proposals.

- (c) That the Mayor, with support from City Staff, continue to advocate for additional support from various members of Parliament and Members of Provincial Parliament for ongoing financial support related to Public Transit Investments, and the General Manager, Finance and Corporate Services, be authorized and directed to confirm and execute any agreements or protocols, as required.

Result: MOTION, CARRIED by a vote of 10 to 2, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 No – Ward 5 Councillor Matt Francis
 No – Ward 6 Councillor Tom Jackson
 Not Present – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Yes – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

FOR INFORMATION:

(a) APPROVAL OF AGENDA (Item 2)

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

13. NOTICES OF MOTION

13.1 Corman Park Basketball Court Replacement (Ward 10)

(Pauls/Cassar)

That the Agenda for the September 8, 2023 Public Works Committee meeting be approved, as amended.

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

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis

Not Present – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Not Present – Ward 10 Councillor Jeff Beattie
 Not Present – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Not Present – Ward 14 Councillor Mike Spadafora
 Not Present – Ward 15 Councillor Ted McMeekin

(b) DECLARATIONS OF INTEREST (Item 3)

There were no declarations of interest.

(c) APPROVAL OF MINUTES OF PREVIOUS MEETING (Item 4)

(i) August 16, 2023 (Item 4.1)

(Cassar/M. Wilson)

That the Minutes of the August 16, 2023 meeting of the Public Works Committee be approved, as presented.

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

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Not Present – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Not Present – Ward 10 Councillor Jeff Beattie
 Not Present – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Not Present – Ward 14 Councillor Mike Spadafora
 Not Present – Ward 15 Councillor Ted McMeekin

(d) DELEGATION REQUESTS (Item 6)

(i) Sean Forde respecting Concerns about the change in the schedule for the buses to Stoney Creek (for a future meeting) (Item 6.1)

(Francis/Beattie)

That the Delegation Request from Sean Forde respecting Concerns about the change in the schedule for the buses to Stoney Creek, be approved for a future meeting.

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

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Not Present – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Not Present – Ward 14 Councillor Mike Spadafora
 Not Present – Ward 15 Councillor Ted McMeekin

(e) DELEGATIONS (Item 7)

(i) Tiffany Garvey, respecting DARTS (approved July 12, 2023) (Item 7.1)

Tiffany Garvey addressed the Committee respecting concerns related to DARTS.

(Cassar/Francis)

That the delegation Tiffany Garvey respecting concerns related to DARTS, be received.

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

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Not Present – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Not Present – Ward 14 Councillor Mike Spadafora

Not Present – Ward 15 Councillor Ted McMeekin

(f) STAFF PRESENTATIONS (Item 8)

(i) Burlington Street Sewage Spill Update (PW22088(b)) (City Wide) (Item 8.1)

Shane McCauley, Director of Water and Wastewater Operations, addressed the Committee respecting the Burlington Street Sewage Spill Update (PW22088(b)) (City Wide), with the aid of a PowerPoint presentation.

(Tadeson/Cassar)

That the presentation from Shane McCauley, Director of Water and Wastewater Operations, respecting the Burlington Street Sewage Spill Update (PW22088(b)) (City Wide), be received.

Result: MOTION, CARRIED by a vote of 12 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Not Present – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

For further disposition of this matter, refer to Item 1.

(g) PUBLIC HEARINGS (Item 10)

(i) Proposed Permanent Closure and Sale of a Portion of Concession 6 Road West, Flamborough (PW23054) (Ward 12) (Item 10.1)

Councillor Nann advised that the notice of the Proposed Permanent Closure and Sale of a Portion of Concession 6 Road West, Flamborough, was provided as required under the City's By-law No. 14-204 – the Sale of Land Policy By-law.

The Committee Clerk advised that there were no registered speakers.

The Chair asked three times if there were any members of the public in attendance who wished to come forward to speak to the matter. No individuals came forward.

(Cassar/A. Wilson)

That the public meeting be closed.

Result: MOTION, CARRIED by a vote of 12 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Not Present – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

For further disposition of this matter, refer to Item 3.

(ii) Proposed Permanent Closure and Sale of Crescent Road, Hamilton (PW23053) (Ward 14) (Item 10.2)

Councillor Nann advised that the notice of the Proposed Permanent Closure and Sale of Crescent Road, Hamilton, was provided as required under the City's By-law No. 14-204 – the Sale of Land Policy By-law.

The Committee Clerk advised that there were no registered speakers.

The Chair asked three times if there were any members of the public in attendance who wished to come forward to speak to the matter. No individuals came forward.

(Jackson/McMeekin)

That the public meeting be closed.

Result: MOTION, CARRIED by a vote of 12 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Not Present – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

For further disposition of this matter, refer to Item 4.

(h) NOTICES OF MOTION (Item 13)

(i) Corman Park Basketball Court Replacement (Ward 10) (Item 13.1)

(Beattie/Cassar)

That the Rules of Order be waived to allow for the introduction of a Motion respecting Corman Park Basketball Court Replacement (Ward 10).

Result: Motion CARRIED by a 2/3 majority vote of 12 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Not Present – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

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

(i) GENERAL INFORMATION / OTHER BUSINESS (Item 14)**(i) Amendments to the Outstanding Business List (Item 14.1)****(Danko/A. Wilson)**

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

- (1) Items Considered Complete and Needing to be Removed (Item 14.1(a))
 - (i) Free-Floating Carshare Pilot Program (14.1(a)(a))
Addressed as Item 11.1 (PED20168(b)) (today's agenda)
Item on OBL: ABW
 - (ii) Chedoke Creek & Burlington Street Sewage Discharge Incidents (14.1(a)(b))
Addressed as Item 11.2 (PW23056) (today's agenda)
Item on OBL: ADG
- (2) Items Requiring a New Due Date: (Item 14.1(b)):
 - (i) Joint Action by City of Hamilton and Hamilton Police Service to Improve Pedestrian Safety (Item 14.1(b)(a))
Item on OBL: ADJ
Current Due Date: September 18, 2023
Proposed New Due Date: December 4, 2023
 - (ii) Roadway Safety Measures on Aberdeen Avenue from Queen Street to Longwood Road (Item 14.1(b)(b))
Item on OBL: AZ
Current Due Date: September 18, 2023
Proposed New Due Date: November 13, 2023
 - (iii) Roadway Safety Measures on Aberdeen Avenue from Queen Street to Longwood Road (Item 14.1(b)(c))
Item on OBL: AZ
Current Due Date: July 5, 2023
Proposed New Due Date: September 18, 2023
 - (iv) Review of Level of Service for Winter Control in Alignment with the Principles of Vision Zero (Item 14.1(b)(d))
Item on OBL: ADN
Current Due Date: September 18, 2023
Proposed New Due Date: October 30, 2023

- (v) Implementation plan for the two-way conversion of Main Street (Item 14.1(b)(e))
Item on OBL: ACW
Current Due Date: October 16, 2023
Proposed New Due Date: October 30, 2023
- (vi) Reassessment of one-way streets (Item 14.1(b)(f))
Item on OBL: ACX
Current Due Date: October 16, 2023
Proposed New Due Date: October 30, 2023
- (3) Items Requiring a New Title (Item 14.1(c)):
 - (i) Current Title: Burlington Street Sewage Spill Update (Item 14.1(c)(a))
Title to be Changed to: Annual Report Regarding Sewage Spills
Item on OBL: ADM
Current Due Date: September 8, 2023
Proposed New Due Date: Q2 2024

Result: MOTION, CARRIED by a vote of 12 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Not Present – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

(j) PRIVATE AND CONFIDENTIAL (Item 15)

- (i) **(Jackson/Beattie)**
That the Committee move into Closed Session respecting Item 15.1, pursuant to Section 9.3, Sub-section (k) of the City's Procedural By-law 21-021, as amended, and Section 239(2), Sub-section (k) of the *Ontario Municipal Act, 2001*, as amended, as the subject matter pertains to a

position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the municipality or local board.

Result: MOTION, CARRIED by a vote of 12 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 6 Councillor Tom Jackson
 Yes – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Not Present – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin

(ii) Transit Maintenance & Storage Facility - Cost Increase (PW23051(a) / FCS23084 (a)) (City Wide) (Item 15.1)

For disposition of this matter, refer to Item 9.

(k) ADJOURNMENT (Item 16)

(Spadafora/Beattie)

That there being no further business, the meeting adjourned at 5:22 p.m.

Result: MOTION, CARRIED by a vote of 12 to 0, as follows:

Yes – Ward 1 Councillor Maureen Wilson
 Yes – Ward 2 Councillor Cameron Kroetsch
 Yes – Ward 3 Councillor Nrinder Nann
 Yes – Ward 5 Councillor Matt Francis
 Yes – Ward 6 Councillor Tom Jackson
 Not Present – Ward 7 Councillor Esther Pauls
 Yes – Ward 8 Councillor J. P. Danko
 Yes – Ward 10 Councillor Jeff Beattie
 Yes – Ward 11 Councillor M. Tadeson
 Yes – Ward 12 Councillor Craig Cassar
 Yes – Ward 13 Councillor Alex Wilson
 Yes – Ward 14 Councillor Mike Spadafora
 Yes – Ward 15 Councillor Ted McMeekin


Respectfully submitted,

Councillor N. Nann, Chair,
Public Works Committee

Carrie McIntosh
Legislative Coordinator
Office of the City Clerk



INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	September 18, 2023
SUBJECT/REPORT NO:	2022 Annual Energy Report (PW21049(b)) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Linda Campbell (905) 546-2424 Ext. 2810 Tracy Zmudczynski (905) 546-2424 Ext. 5356
SUBMITTED BY:	Indra Maharjan Director of Corporate Facilities & Energy Management Public Works
SIGNATURE:	

COUNCIL DIRECTION

As part of the City's Corporate Energy and Sustainability Policy (PW14050(a)) 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 2022 Annual Energy Report is attached as Appendix "A" to Report PW21049(b). The Report provides a summary of energy usage, performance comparisons and cost savings initiatives for the calendar year 2022. This includes details on conservation efforts to reduce energy consumption and GHG emissions.

Additionally, the report on the Corporate Greenhouse Gas Emission Inventory for calendar year 2021 is presented within the 2022 Annual Energy Report under its own section. Although included in 2022 reporting. The data compiled for the GHG emissions inventory is one year behind the energy intensity, energy usage and other related energy data.

The City's Corporate Energy and Sustainability Policy has the following long-term targets in place, which will require collaborative and focused actions to achieve. Of note,

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

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

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

SUBJECT: 2022 Annual Energy Report (PW21049(b)) (City Wide) – Page 2 of 3

staff are developing plans or “Pathways to Net Zero” including a combination of conservation actions, operational changes and renewable generation to facilitate achievement of these targets.

Table 1: Corporate Energy and Sustainability Policy Targets

Targets By	Energy Intensity Reduction	GHG Emissions
2020	20%	20%
2030	45%	50%
2050	60%	100%*

*Net zero emissions

Energy intensity (energy usage in equivalent kilowatt hours per square foot) is the key performance indicator for corporate buildings, and that was down 27% from the base year of 2005. The report includes updated results for the City’s overall utility consumption and costs, other key performance metrics and energy conservation project updates.

Table 2: 2022 Energy Intensity Comparison in Equivalent kilowatt hours per Square Foot (ekWh/sqft)

Energy Intensity	2005	2021	2022	2022 vs 2005	2022 vs 2021
City Total (ekWh/sqft)	45.69	30.02	33.26	-27%	11%

Table 3: 2022 Combined Energy Usage Comparison (Electricity and Natural Gas) in equivalent kilowatt hours (ekWh)

Combined Energy	2005	2021	2022	2022 vs 2005	2022 vs 2021
Total Energy (ekWh)	400,722,256	355,682,587	361,676,039	-10%	2%
Total Energy Cost (\$)	\$27,177,303	\$30,160,802	29,165,903	7%	-3%

The overall results of the Corporate Emissions Inventory for 2021 was a reduction of 43% as compared to the base year of 2005. The emissions inventory is impacted in part by energy usage, which may have some lasting impacts from pandemic closures and operational changes. However, there was also a calculation formula error identified while completing this inventory, which showed that emissions related to natural gas in the Vehicle Fleet and Contracted Waste Vehicle sectors were under-reported previously. The calculation formula was corrected. The base year was not impacted.

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

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

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

SUBJECT: 2022 Annual Energy Report (PW21049(b)) (City Wide) – Page 3 of 3Table 4: 2021 GHG Emissions Inventory Comparison in tonnes CO₂e

GHG Emissions Year	2005	2020	2021	2021 vs 2005	2021 vs 2020
Corporate Total (tCO ₂ e)	122,699	60,674	70,271	-43%	16%

Corporate Facilities and Energy Management Division is collaboratively working with all City division to pursue opportunities around Net Zero facilities with focus on low carbon and more resilient facilities.

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

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

The City is required to update its 5-year Conservation Demand Management Plan 2019 in 2024 for a period of 2024-2029 as per O.Reg. 25/23, Broader Public Sector: Energy Reporting and Conservation and Demand Management Plans.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW21049(b) – 2022 Annual Energy Report

2022 ANNUAL ENERGY REPORT



**CITY OF
HAMILTON**



CONTENTS

CONTENTS 1

INTRODUCTION..... 2

2022 HIGHLIGHTS 3

CORPORATE ENERGY & SUSTAINABILITY POLICY 4

ENERGY STRATEGIES & PROGRAMS KPI RESULTS 4

 UTILITY RATES AND COMMODITY STRATEGIES 5

 COST RECOVERY 5

 ENERGY CONSERVATION AND INCENTIVE PROGRAMS 5

 OVERALL UTILITY COSTS 2022..... 5

ENERGY PERFORMANCE KPI RESULTS 7

 ELECTRICITY CONSUMPTION AND COST 7

 NATURAL GAS CONSUMPTION AND COST 8

 COMBINED CONSUMPTION AND COST (ELECTRICITY AND NATURAL GAS) 9

 ENERGY INTENSITY RESULTS..... 10

VEHICLE FUELS 12

 FUELS CONSUMPTION AND COST 12

ENERGY CONSERVATION..... 13

 ENERGY EFFICIENCY PROJECTS 13

RENEWABLE ENERGY GENERATION 16

NET ZERO INITIATIVE 16

 PATHWAY TO NET ZERO 16

CORPORATE GREENHOUSE GAS (GHG) REPORT: 2021 INVENTORY 18

 2021 INVENTORY RESULTS..... 18

2022 ENERGY REPORTING FINAL COMMENTS 22

APPENDIX A..... 23

GLOSSARY 41

 COMMON ACRONYMNS THROUGHOUT THE REPORT 41

 DEFINITIONS: COMMON TERMS USED THROUGHOUT THE REPORT 42

MISSION STATEMENT

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

INTRODUCTION

2022 saw most of North America begin to return to normal, or rather the “new normal”. While the impacts of COVID-19 continue to affect business operations and building occupancy, The City did see most of its services return to pre-pandemic levels within the 2022 year. Community and recreational services increased programming and capacity levels at their facilities and many work spaces were opened again. Varying work models emerged for City staff, from complete return to site work, to hybrid and remote work models. Overall, by the end of 2022, City-owned sites were occupied to some level with staff.

From an energy perspective, the annual results of 2022 energy usage would be closer to pre-pandemic levels than the previous two years. Although there were some lingering impacts in the start of 2022, usage was on par with expectations of a typical year.

The annual energy report provides data for the City’s corporate energy and fleet usage, utility and fuel costs, energy intensity results and a variety of key performance indicators. These include savings and avoided costs for different reduction programs, strategies and benchmarks.

Also included in this report is the Corporate GHG Emissions Inventory Report for 2021. The data for GHG reporting is currently one year behind the reporting of the energy data. Council approved the creation of the Climate Change Office which is focused on moving the City to net zero emissions by 2050 and creating emissions reductions policy actions. While the Climate Change Office is focused on moving Hamilton toward this goal, current Energy and Sustainability policies are also in place with requirements to report on annual GHG emissions for Corporate assets. The inventory shows a 43% reduction in GHG emissions in 2021 when compared to base year¹. Corporate facilities energy and emissions data is also submitted annually as part of the Broader Public Sector reporting requirements of Ontario Regulation 507/18 and is included in Appendix A of this report.

As in previous years, consumption and cost data has been collected for corporate assets, specifically City-owned and operated facilities and vehicle fleet. Additionally, cost savings data related to conservation projects, cost recovery and rate-related decisions have been calculated for the year. Overall, the actions in 2022 from key metrics result in an energy intensity reduction of 27% when compared to the base year of 2005.



Hamilton City Hall

¹ Correction made due to an error discovered on the GHG calculation tool. Further details in section on Corporate GHG: 2021 Inventory (page 18 of this report).

2022 HIGHLIGHTS



Overall Energy Spend of \$47.6M on Utilities for Electricity, Natural Gas and Fuels.



Usage of Electricity decreased by 2%, and Natural Gas Usage increased by 6% compared to 2021.



Energy Intensity decreased by 27% when compared to base year 2005.



Fuel Costs Increased 51% and Fuel Usage increased by 8% compared to 2021.



Conservation Savings of \$4.3M and Incentives received of \$215K.



Project Emissions Savings of 1,148 tonnes CO_{2e} in 2022.



Net Zero Pathways for facilities under development to meet the City's Net Zero targets by 2050.



GHG Corporate Emissions Inventory (2021) decreased by 43% when compared to base year.

CORPORATE ENERGY & SUSTAINABILITY POLICY

One of the tools used to guide decision making around energy use reduction, sustainability, emissions and reporting for corporate assets and operations is the [Corporate Energy and Sustainability Policy](#)². The policy was revised in 2020 to further re-iterate the importance of considering energy and sustainability decisions in capital planning, and to align it with other City-wide initiatives including other corporate and community-based plans, such as addressing climate change, renewable energy and Fleet and Transit policies.

The revisions re-committed to existing energy intensity targets and included an update to GHG emissions reduction targets to achieve Net Zero emissions by 2050. In addition, further actionable items were defined in the areas of building efficiency, sustainable building, and operational set points and improvement measures.

The targets confirmed in the 2020 revision to the policy include:

Figure 1: Corporate Energy Intensity and Emissions Reduction Targets

Year	Energy Intensity Reduction Targets	Emissions Reduction Targets
2020	20%	20%
2030	45%	50%
2050	60%	100%*

*Net zero emissions

The revised policy was accepted by Council in February 2021. The policy document is revised every five years to ensure that it remains relevant to the existing regulatory environment and to other City-endorsed policies or initiatives on energy reduction and sustainability.

ENERGY STRATEGIES & PROGRAMS KPI RESULTS

The City is committed to tracking and reporting on a variety of the key performance indicators (KPI) to measure the City's successes and identify areas for improvement. These metrics have been a principal in evaluation of results from different decisions made or strategies developed to meet different City goals and targets.

Although costs may be impacted by many outside factors, cost reduction and the avoidance of costs are a result of the energy strategies and programs implemented by the City. Energy conservation projects, utilizing incentive programs, bill recovery from reviewing utility invoices or tax rebate programs, and utility rate optimization are a few of the methods used to contribute to annual cost savings or mitigation of energy costs for the City.

Overall, the total results from implementing the various energy strategies and programs in 2022 has resulted in a savings and avoided costs of \$8.5M.

² Corporate Energy & Sustainability Policy is available: <https://www.hamilton.ca/home-neighbourhood/environmental-stewardship/environmental-plans-strategies/office-energy>

UTILITY RATES AND COMMODITY STRATEGIES

This category reports the results of the electricity and natural gas costs that would have been incurred by the City had no action been initiated to reduce costs. Actions include procurement plans, natural gas hedging strategies and optimizing utility rates including switching rate class to increase benefits from Global Adjustment (GA) savings opportunities. Natural gas hedging strategies amounted to a cost of \$127K for 2022 when compared to its benchmark. As we discuss later in the report, natural gas prices did increase overall for 2022. GA strategies resulted in an avoided cost of \$3.5M for 2022. The total avoided costs under this category is \$3.4M in 2022.

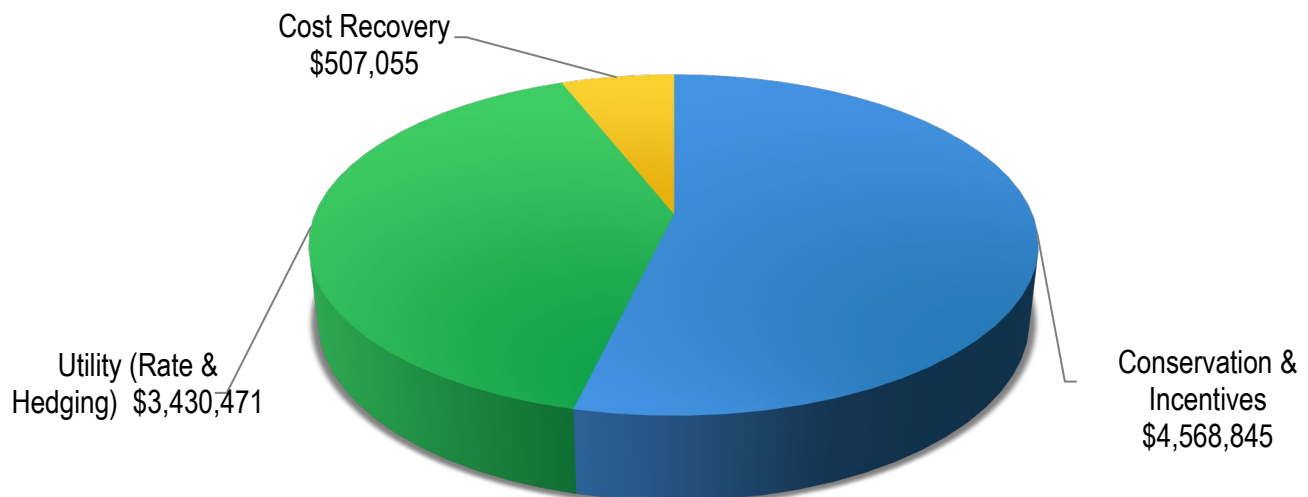
COST RECOVERY

This category reports on the results of costs recovered due to the City's continuous efforts to review its utility accounts to correct any billing errors, as well as recover credits from fuel tax recovery programs. In 2022, the consistent review of the City's accounts and of corrected estimated billings resulted in \$436K of savings in this area. Fuel tax credit recovery for the years 2020 and 2021 was collected during 2022 was \$71K. The total overall for this category was \$507K in 2022.

ENERGY CONSERVATION AND INCENTIVE PROGRAMS

This category reports the results of the savings achieved from implementing energy efficiency measures, equipment and processes within the City's building assets that lead to reductions in energy consumption as well as financial incentives received for completing those projects. Incentives in this context refers to those from utility providers, the Independent Electricity System Operator (IESO) or provincial or federal funding options that are provided to eligible energy efficiency projects. The project savings for 2022 was \$4.3M, with incentives received of \$215K, for a total of \$4.6M in this category. Any incentives applied for, but not confirmed or received by the City, will be reported in the following year's report.

Figure 2: 2022 Breakdown of Savings and Avoided Costs



OVERALL UTILITY COSTS 2022

The City tracks costs and consumption to evaluate performance, but also to help budget for upcoming years. Costs for electricity, natural gas and fuels are compiled and measured against the previous year and compared to the

baseline year of 2005. The costs are period normalized for usage in the 2022 year. In addition, for the purposes of this report, costs for sites connected to the district energy system (and supplied by HCE Energy Inc.) are included in electricity and natural gas costs.

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

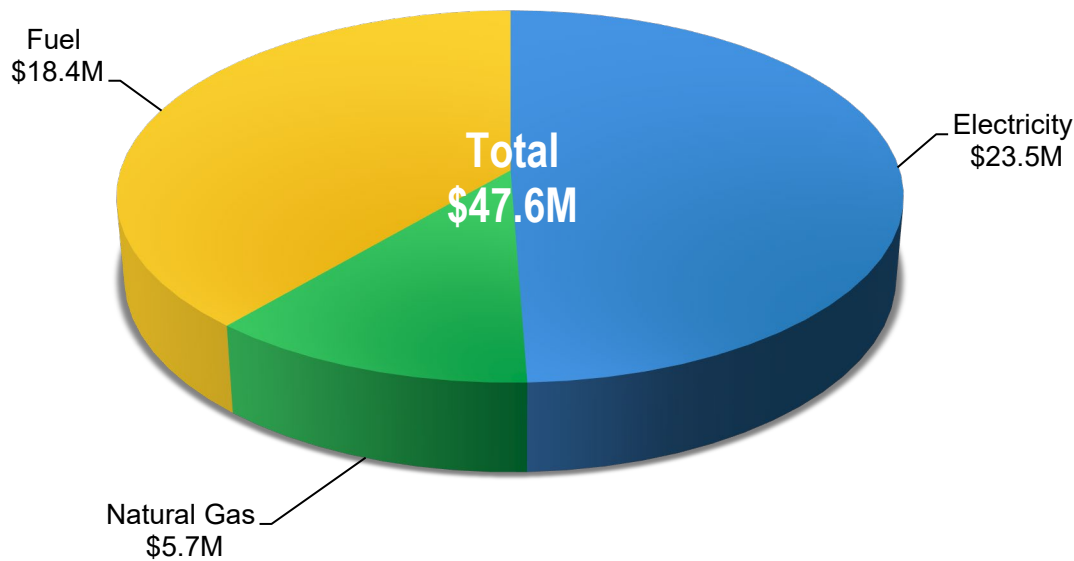
Costs determined in this report are incurred by City-owned and operated buildings/sites and exclude City Housing Hamilton. Utilities include Alectra Utilities, Hydro One Utilities and Enbridge Gas Inc. Sites linked to the district energy system with utility costs provided from HCE are included in electricity and natural gas respectively. Fuels include diesel, unleaded gasoline and compressed natural gas (CNG) for all Transit and Fleet operations (excluding Hamilton Police Services or Darts). Sites with partial data may be excluded.

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

2022 saw the return of more typical building and fleet usage in the city. Coupled with rise in global inflation, increases to utility and fuel costs were impacted. There were periods of market volatility in 2022 due economic recovery as well as geo-political events with Russia and Ukraine that put pressure on prices overall. The federal carbon charge for natural gas increased as scheduled in April 2022. Fuel costs were particularly vulnerable to global market changes, resulting in a total fuels cost increase of 51% compared to 2021.

Additional information on the impacts will be discussed in upcoming sections of this report. In 2022, the total spend for consumption of electricity, natural gas and vehicle fuels (diesel, unleaded gasoline and compressed natural gas (CNG)) was \$47.6, an increase of 12% overall compared to 2021.

Figure 3: 2022 Total Utility Costs for Electricity, Natural Gas and Fuels³



ENERGY PERFORMANCE KPI RESULTS

Gathering and reviewing data on energy usage and cost is instrumental in understanding trends and decision making for program and project activities. This section reviews the comparison results of electricity, natural gas and energy intensity to the prior year (2021) and to the base year (2005). The last previous typical year in consumption was 2019, therefore some of the KPIs in this section are also compared to 2019 year. This helps to view changes through a lens not primarily affected by the impacts of the COVID-19 pandemic and is perhaps a more accurate reflection of the City's efforts to reduce consumption year over year.

One major change to the data set was the removal of the "Entertainment" category in 2022 reporting. This category included First Ontario Centre, First Ontario Concert Hall and Hamilton Convention Centre. Those properties are not operated by the City, and therefore any changes to operational activities that impact consumption and cost are not directed by City staff.

The energy consumption and costs reported here are period normalized for 2022 and are calculated as usage and cost during that period and may or may not coincide with a billing period for any given account. In addition, the data reported here is for full year data set. If a property is added or removed mid-year it is not included on the reporting. Additional charts on the results presented in this section are in Appendix A of this report.

ELECTRICITY CONSUMPTION AND COST



The table below shows the results for Electricity in 2022. Electricity Consumption in 2022 was down 2% from 2021 and 15% down from the base year of 2005. The costs and unit price were also lower in 2022 when compared to the previous year.

³ Total Costs rounded for graph, total amount = \$47,597,098. Includes City-owned and operated buildings/sites, excluding leased properties, City Housing Hamilton and is period normalized. Entertainment portfolio removed in 2022. Fuels include diesel, gasoline, compressed natural gas. Excludes data for Hamilton Police and DARTS.

Costs for electricity comprises commodity, delivery, transmission and other regulatory charges. Commodity includes the Hourly Ontario Energy Price (HOEP) and the Global Adjustment (GA). Both portions of the commodity are determined by market-based factors and are administered by Ontario's Independent Electricity System Operator (IESO). The other charges, delivery, transmission and regulatory are regulated by the Ontario Energy Board (OEB), and any requests by a local utility (also called a local distribution company), to change such rates requires OEB approval. The City of Hamilton operates within two local distribution companies, Alectra Utilities and Hydro One.

Figure 4: Electricity Consumption and Cost Comparison Summary

Electricity Overview					Comparisons		
	2005	2019	2021	2022	2022 vs 2005	2022 vs 2019	2022 vs 2021
Total Electricity (kWh)	236,362,045	216,929,517	204,698,978	201,298,489	-15%	-7%	-2%
Total Electricity (\$)	\$20,657,050	\$24,575,215	\$25,029,589	\$23,501,278	14%	-4%	-6%
Total Electricity (\$/kWh)	\$0.087	\$0.113	\$0.122	\$0.117	34%	3%	-5%

The City has a variety of rate classes due to the different sizes and needs of power across the City. There are small commercial (or residential) accounts, unmetered or static accounts (i.e. streetlights), large commercial or demand-based rate accounts, and a few high demand (Class A) accounts. The unit cost is a blend of the varying rates and therefore is not necessarily reflective of a specific account.

The impacts to consumption (and cost) are varying, but typically relate to weather conditions, building capacity, operations and energy efficiency. The cooling degree days in 2022 were 6% lower than in 2021, and 9% below the 5-year average. It was not a particularly hot or prolonged summer and likely it took slightly less electricity to reduce the temperatures during the 2022 summer period than it did in 2021.

NATURAL GAS CONSUMPTION AND COST



Natural gas results for 2022 are shown in the table below. Natural Gas consumption for buildings in 2022 was a 6% increase over 2021 and on par with consumption in the base year of 2005. Costs for natural gas were 10% higher in 2022 as compared to 2021, and the unit cost was 4% increase from 2021. Compared to 2019, there are large increases in consumption and costs due to additions in volume for the biosolids production program at the Hamilton Water Woodward site.

Figure 5: Natural Gas Consumption and Cost Comparison Summary

Natural Gas Overview					Comparisons		
	2005	2019	2021	2022	2022 vs 2005	2022 vs 2019	2022 vs 2021
Total Natural Gas (m³)	15,403,956	13,478,604	14,573,707	15,480,459	0%	15%	6%
Total Natural Gas (\$)	\$6,520,253	\$3,800,296	\$5,131,213	\$5,664,625	-13%	49%	10%
Total Natural Gas (\$/m³)	\$0.423	\$0.282	\$0.352	\$0.366	-14%	30%	4%

Costs for natural gas include the commodity charges, which the City purchases on the wholesale market via purchasing agreements, and distribution and transportation charges, which are provided by Enbridge Gas. The gas is delivered to the end user by Enbridge Gas regardless of where the commodity is purchased.

There are a few factors that led to an increase in the cost per m³, which is the best indication of changes in the costs. The largest impact to costs was the annual increase in the Federal Carbon charge, which increased from 7.83 cents per m³ to 9.79 cents per m³ at April 1, 2022, an increase of 25% for the FCC component on the regulated costs alone. The FCC is anticipated to increase annually with the expected increase in carbon value. In addition, Enbridge delivery and administrative rates did increase slightly as well.

Natural gas accounts do also vary in their rate classes and the unit cost is a blend of these rates. For natural gas, most of the City's accounts are residential (small commercial) or mid to large commercial rates. The City does also have two high volume industrial accounts, one of which is for Transit's compressed natural gas (CNG) bus fueling and is not included in the usage or costs shown above. It is included in the fuels section. The second account is for the biosolids plant activity at the Woodward campus.

While the City does hedge the price on a large portion of natural gas, the commodity market prices for natural gas in 2022 increased in the short term as domestic and global industrial and commercial demand rose steadily fueled by European supply shortages from political unrest. This does impact unhedged volumes of the City's natural gas requirements and contributed to the overall higher costs.

The heating degree days (HDD) in 2022 for Hamilton were 8% higher than in 2021. There were considerably higher HDD during January of 2022, indicating a cold start to the year. There were also higher HDD during the later part of Sept and Oct, which is earlier in the season than expected. Overall, 2022 was 1% higher than the 5-year average for HDD.

COMBINED CONSUMPTION AND COST (ELECTRICITY AND NATURAL GAS)

The combined consumption of electricity and natural gas converted to equivalent kilo-watt hours (ekWh)⁴ represents a 2% increase over 2021 and a 1% increase over 2019. There is a 10% decrease in consumption when compared to the base year of 2005. Overall, the cost for electricity and natural gas combined decreased by 3% over 2021 and increased by 7% compared to the base year.

Figure 6: 2022 Combined Consumption and Cost Comparison Summary

Total Combined Energy Overview	Comparisons						
	2005	2019	2021	2022	2022 vs 2005	2022 vs 2019	2022 vs 2021
Total Energy (ekWh)	400,722,256	356,567,857	355,682,587	361,676,039	-10%	1%	2%
Total Energy Cost (\$)	\$27,177,303	\$28,375,511	\$30,160,802	\$29,165,903	7%	3%	-3%
Total Energy (\$/ekWh)	\$0.068	\$0.080	\$0.085	\$0.081	19%	1%	-5%

Collectively, the total numbers show some increases in consumption which we would expect as 2022 had increased activity at buildings, particularly those that host community programs like arenas and community centres or house staff. However, had the Entertainment Group not been removed from reporting in 2022, the increase in consumption would have been higher.

In the chart below, the combined consumption information is shown by facility grouping, which may be a better reflection of the 2022 results on the various facility and operational groups.

⁴ Combined usage is electricity in kWh plus natural Gas in m³ (converted to ekWh).

Figure 7: 2022 Combined Electricity and Natural Gas Consumption by Facility Grouping (000's of ekWh)

Total Energy Consumption	in 000's of ekWhs				Comparisons		
	2005	2019	2021	2022	2022 vs 2005	2022 vs 2019	2022 vs 2021
City/Town Halls	13,775	8,899	6,623	8,662	-37%	-3%	31%
Corporate Facilities	17,188	12,256	9,381	10,936	-36%	-11%	17%
Street Lighting and Traffic Lighting	39,290	19,920	19,198	18,682	-52%	-6%	-3%
Other City Operations	5,618	6,355	3,986	4,275	-24%	-33%	7%
Hamilton Water	121,040	126,788	156,362	162,930	35%	29%	4%
Yards	39,589	27,869	26,016	27,935	-29%	0%	7%
Arenas	39,904	35,094	23,673	28,967	-27%	-17%	22%
Community/Senior Centers	3,834	3,601	2,681	3,622	-6%	1%	35%
Rec Centres/ Pools	26,789	30,073	27,000	30,043	12%	0%	11%
Tim Horton's Field	N/A	9,267	7,737	8,880	N/A	-4%	15%
Rec Parks/Stadiums/Golf	8,332	4,997	5,134	5,301	-36%	6%	3%
Lodges (Macassa, Wentworth)	24,938	15,774	15,018	13,699	-45%	-13%	-9%
Culture	5,383	5,278	3,222	3,975	-26%	-25%	23%
Fire/ EMS	10,698	12,803	11,203	12,181	14%	-5%	9%
Hamilton Public Libraries	9,343	11,726	10,235	10,351	11%	-12%	1%
Entertainment	20,244	17,565	16,877	N/A			
Hamilton Police Services	14,757	8,303	11,338	11,238	-24%	35%	-1%
City Wide Total	400,722	356,568	355,683	361,676	-10%	1%	2%

ENERGY INTENSITY RESULTS

Energy intensity is one of the key metrics for the City, and it measures usage in equivalent kilowatt hours per square foot (ekWh/sqft) of operated space. Each year, the city reviews the electrical and natural usage and updates the square footage of occupied space to reflect changes in building portfolios. The forward targets outlined in the Corporate Energy & Sustainability Policy are a reduction in energy intensity of 45% by 2030 and 60% by 2050 as compared to the base year of 2005. In 2022, the energy intensity represents a reduction of 27% as compared to the base year.

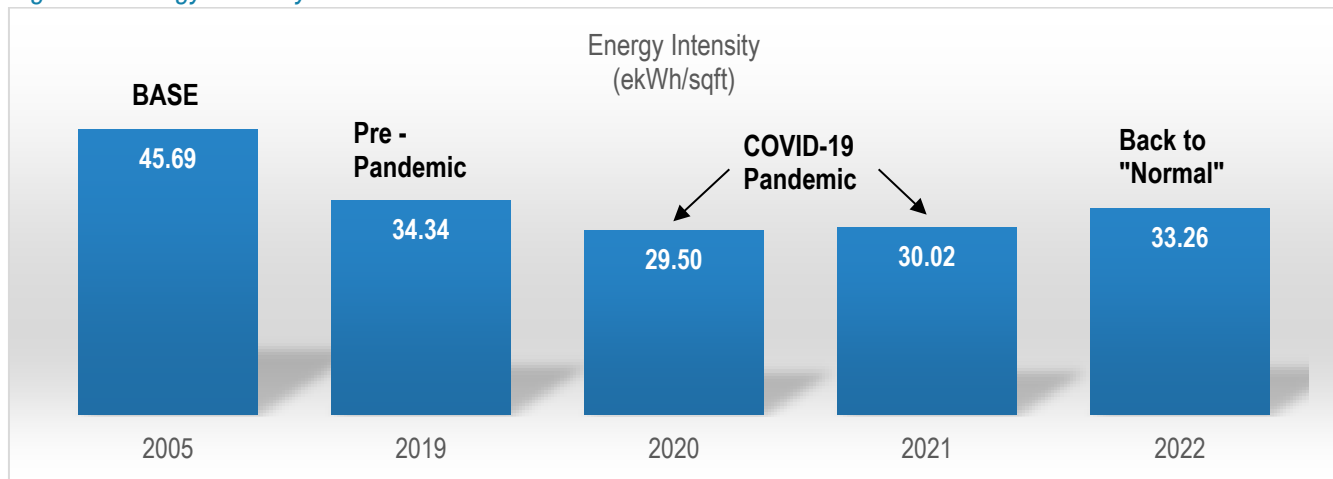
Figure 8: 2022 Energy Intensity Comparison Summary (ekWh/sqft)

Energy Intensity					Comparisons		
	2005	2019	2021	2022	2022 vs 2005	2022 vs 2019	2022 vs 2021
City Total (ekWh/sqft)	45.69	34.34	30.02	33.26	-27%	-3%	11%
City Total (\$/sqft)	\$2.67	\$2.37	\$2.31	\$2.44	-8%	3%	6%
Reported Square Footage	5,138,852	5,926,831	5,866,611	5,286,082			

Notable exception to this data is the categories of O&M (Operational and Maintenance) and Hamilton Water. The O&M category includes such things as usage related to street lighting, traffic lighting, parking structures/lots, and park or path lighting. Hamilton Water includes usage related to pump stations, reservoirs, wells or water towers. Both categories may have significant usage, but do not represent occupiable space or "building" usage. As noted, the Entertainment Group was removed for 2022 and the square footage was also adjusted to accommodate that change.

Energy intensity results need to be viewed with some caution over the past couple of years, as consumption patterns in 2020 and 2021 were irregular. Although there was an increase of 11% in 2022 when compared to 2021, it is more realistic to compare results to 2019, which was the last "typical" year regarding consumption and operations. Compared to 2019, there was a decrease of 3% in energy intensity.

Figure 9: Energy Intensity



The following chart shows the energy intensity results for specific groupings.

Figure 10: 2022 Energy Intensity Comparison by Portfolio⁵

Energy Intensity	ekWh/sqft				Comparisons		
	2005	2019	2021	2022	2022 vs 2005	2022 vs 2019	2022 vs 2021
City/Town Halls	39.6	24.9	20.3	26.5	-33%	7%	31%
Corporate Facilities	44.6	22.3	19.8	23.1	-48%	3%	17%
Street Lighting & Traffic Lighting	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Other City Operations	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hamilton Water	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Yards	38.1	28.7	25.7	27.7	-27%	-4%	8%
Arenas	51.3	41.9	29.4	35.9	-30%	-14%	22%
Community/Senior Centers	31.1	24.3	20.8	23.0	-26%	-6%	10%
Rec Centres/ Pools	78.6	64.6	57.5	59.0	-25%	-9%	2%
Tim Horton's Field	0.0	28.3	23.6	27.1		-4%	15%
Rec Parks/Stadiums/Golf	36.5	30.9	27.0	26.3	-28%	-15%	-3%
Lodges (Macassa, Wentworth)	113.6	45.4	43.2	39.4	-65%	-13%	-9%
Culture	35.5	33.3	24.5	30.2	-15%	-9%	23%
Fire/ EMS	45.2	37.3	32.4	34.2	-24%	-8%	6%
Hamilton Public Libraries	25.2	33.0	28.1	28.7	14%	-13%	2%
Entertainment	30.3	26.3	25.3		Removed		
Hamilton Police Services	59.8	35.1	41.0	40.5	-32%	15%	-1%
City Wide Total	45.69	34.34	30.02	33.26	-27%	-3%	11%

⁵ Operational Accounts are not included in the calculation of Energy Intensity, these include street lighting, traffic lighting, park lighting or streetscape and Hamilton Water. Square footage is adjusted for any building not included in the calculation of energy intensity.

VEHICLE FUELS

FUELS CONSUMPTION AND COST



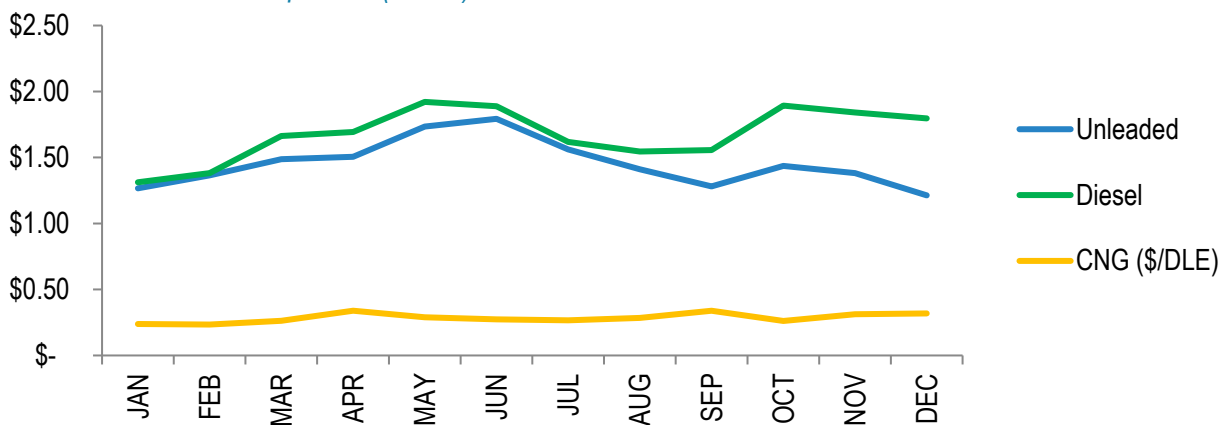
Fuel for the City’s fleet of vehicles is purchased on the wholesale market for all of the City’s own fleet vehicles, including, but not limited to heavy vehicles for Roads, Waste, Hamilton Water, Fire and EMS and Transit, as well as smaller departmental vehicles, like small trucks and SUVs for Building and By-law vehicles. Fuels include diesel, unleaded gasoline and compressed natural gas (CNG).

2022 Results in consumption for diesel and gasoline were as expected, with a modest increase of 3% each, likely due to increased operational activities. There was an increase of 17% of CNG compared to the prior year. This was expected due to an increase in the number of natural gas-powered buses operating in Transit. By the end of 2022, the number of CNG-powered buses represented about 65% of the bus fleet. An increase in CNG usage is expected to continue as Transit replaces all its Diesel bus fleet to CNG over the next few years. An estimated 80% of the bus fleet will be CNG by the end of 2023.

Figure 11: 2022 Fuel Consumption and Costs

Fuel Type	Consumption Litres	Cost	Average \$/L	Comparison 2022 vs 2021	
				Consumption	Average Price
Diesel	7,664,103	\$12,754,304	\$1.66	3%	55%
Unleaded Gasoline	2,541,761	\$3,703,290	\$1.46	3%	28%
CNG (DLE)	6,891,128	\$1,973,601	\$0.29	17%	17%
Total	17,096,992	\$18,431,195	\$1.08	8%	39%

Figure 12: 2022 Fuel Costs Comparison (\$/DLE)



Although CNG is a lower cost fuel compared to diesel and gasoline, the buses do operate at approximately 74% efficiency per diesel litre equivalent (DLE) when compared to diesel fueled buses. However, despite a lower fuel efficiency, when converted to diesel equivalent dollars and adjusted for efficiency, Transit avoided spending \$6.5M with their fleet of CNG buses than they would have using only diesel buses. In addition, the lower GHG emissions from using CNG fuel versus diesel is of benefit to the City overall and positively impacts the City’s corporate GHG emissions inventory.

Additionally, the City continued its partnership with Enbridge Gas to operate a fully carbon-negative bus through 2022. The goal of the original one-year pilot in 2021 was to demonstrate reduced emissions from the City’s public

transit operations. The pilot was a success and its extension for the further year continued help to displace approximately 36,000 liters of diesel. RNG is a practical option that enables Transit to reduce emissions without compromising performance or reliability while using its existing fleet.

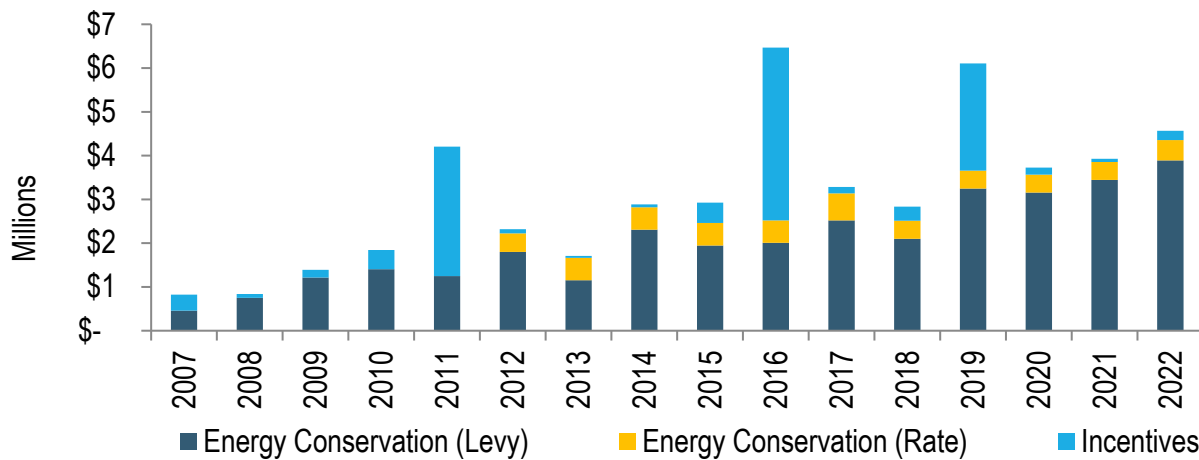
ENERGY CONSERVATION

Project activities at the City play an important role toward meeting the energy reduction and emissions targets and improving efficiencies within City buildings. Every year, these projects are evaluated using specific criteria to identify energy and emissions savings. Upgrades to existing corporate buildings by installing energy efficient lighting and equipment or utilizing new technologies can help to improve operational efficiencies, cost effectiveness and help meet corporate targets for energy intensity and GHG reductions, including the goal of net zero emissions by 2050.

The City's project teams work closely with consultants, engineers, utility personnel and industry experts to retrofit existing buildings, construct new buildings, and upgrade equipment and processes. In addition, securing funding and incentives for efficiency and GHG-reducing projects and the post project monitoring and verification of savings is an important process in reporting and tracking the efforts.

The City tracks the energy savings achieved from projects once they are complete. Project activity in 2022 contributed \$4.3M in annual project savings. There was \$215K in incentives received in 2022. Cumulatively, a total result of \$49.6M since 2005 has been achieved for projects and incentives.

Figure 13: Annual Project Savings (Rate & Levy) and Incentives



ENERGY EFFICIENCY PROJECTS

A variety of projects are undertaken annually with the intentions of reducing both energy usage and GHG emissions to help achieve the targets in place. Some highlights on energy efficiency projects that have been completed in 2022 are:

Stoney Creek Recreation Centre - Pool Waste Heat Recovery Project



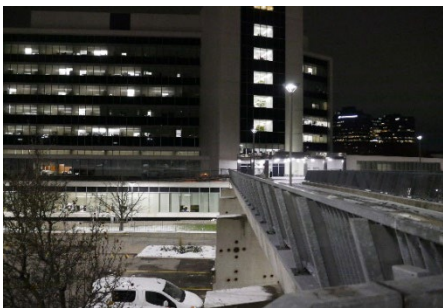
- Installation of Thermal Heat Recovery Systems including efficient make-up water controls. Measures also include low flow shower heads and a slight reduction in pool water temperature.
 - Benefits include: a reduction in electrical, gas & water consumption, reduced GHG emissions & reduced maintenance costs.
 - Annual energy savings for electricity are estimated at 34,969kWh including natural gas savings estimated at 17,929 cubic meters per year. Water savings are estimated at approximately 3,559 m³ per year.
 - GHG emission reduction is estimated at 39 tonnes of CO_{2e} per year.
- Overall operational savings are estimated at \$21,906 annually.
 - Natural gas incentives are estimated at \$1,452.

Ice Plant Optimization Project

- Installation of Floating Head Pressure controls at 6 Arenas
- Benefits include: better ice plant control/optimization for reduced energy consumption and equipment wear & tear.
- Annual energy savings are estimated at 531,065 kWh per year
- IESO SaveOnEnergy incentives are estimated at \$53,107



Hamilton City Hall: LED Lighting Retrofit



- Retrofit of existing indoor light fixture's lamps and ballasts with their equivalent LEDs along with exterior lighting post tops, wall packs, and flood light fixtures upgrade to their equivalent LED models.
 - Benefits included improved energy efficiency, reduced GHG emissions, minimized maintenance cost, and improved Health & Safety aspects of the building.
 - This project yielded an electrical consumption reduction of 446,750 kWh related to lighting load of City Hall along with operational cost reduction of \$40,207 annually.
- These energy saving translated into an annual GHG emissions reduction of 12.5 tonnes of CO_{2e}.
 - Total one-time incentives from the IESO's SaveOnEnergy program was \$26,806.

Macassa Lodge: BAS Controllers Upgrade

- Replace existing BAS controllers excluding field devices to address life cycle replacement.
- Benefits included reduced maintenance, better reliability, and enhanced occupant comfort with improved automation.
- In-addition to above benefits, this project also yielded an annual electrical consumption reduction of 30,000 kWh and 6,500 m³ of natural gas respectively which works out to be an annual operational cost reduction of \$5,000 annually.
- These energy saving translated into an annual GHG emissions reduction of 14 tonnes CO_{2e}.
- Total one-time incentives from the Enbridge's gas program was \$1,320.



Wentworth Lodge: Air Circulation and Perimeter Heating Controls



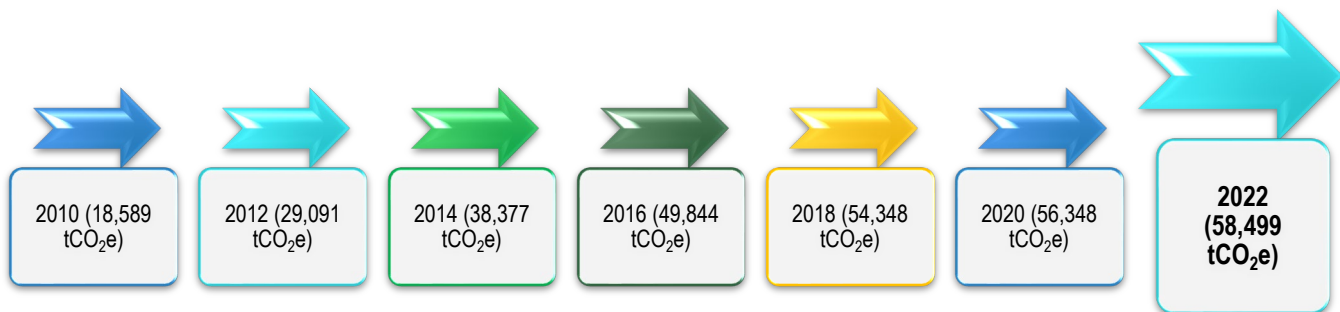
- Improve air circulation in Dishwashing, Gym and Physio, and Salon areas of the Lodge along with perimeter heating controls in various sections of the Lodge by installing new control valves and VFDs on primary heating pumps and motors.
- Benefits included improved energy savings, reduced GHG emissions, better residents' comfort with improved automation.
- This project yielded an electrical consumption reduction of 71,000 kWh and 22,000 m³ of natural gas respectively with operational cost reduction of \$13,000 annually. These energy saving translated into an annual GHG emissions reduction of 53 Tonnes of CO₂e.
- Total one-time incentives from the IESO and Enbridge Gas programs were \$5,000 combined.

The development of future projects is always ongoing, with emphasis on energy use and GHG emissions reduction. Some of the projects that are underway or expected in 2023 and 2024 include:

- Dundas Town Hall: Lighting Upgrade to LEDs;
- Fire Complex 5: LED Upgrade (remaining indoor CFLs);
- Wentworth Operations Center: LED Lighting Upgrade;
- Wentworth Operations Center: Boiler and Condensers Upgrade;
- Central Public Library: ECUs Replacement;
- Roof Top Units Replacement at Fire Station Admin building and Fire Station;
- Bennetto Recreation Centre Pool Waste Heat Recovery Project;
- Jimmy Thompson Pool Filter Pumps VFD Project;
- Ryerson Pool Waste Heat Recovery Project & VFD Project;
- Stoney Creek Municipal Centre – Cooling Tower Replacement Project;
- Glanbrook Town Hall – Heating/Cooling replacement/conversion to Air Source Heat Pump Systems;
- Arena's Solar PV Project.

The goal of energy efficiency projects is not only to achieve energy use reductions and save money, they are also key instruments in reducing GHG emissions that would have otherwise been emitted into the atmosphere. The various efficiency measures completed on projects in 2022 resulted in 1,033 tCO₂e, with a cumulative total of 58,499 tCO₂e reduction from project activities since 2005. This is the equivalent of removing approximately 12,700 cars from the road.

Figure 15: Cumulative GHG Savings from Project Activities



RENEWABLE ENERGY GENERATION

The City's renewable generation operations are owned and managed through Hamilton Renewable Power Inc. (HRP Inc.). There are three 1.6 MW biogas-fueled systems. Two of the units are located at the Glanbrook landfill site. The third unit, a cogeneration unit, producing electricity and heat, is located at the Hamilton Water site at Woodward Avenue.

The three units use raw biogas as a renewable fuel sources to produce electricity for the power grid through a long-term contract with the province. Using renewable fuel contributes to a more efficient and sustainable process, and further offsets GHG emissions.

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

As the City moves forward to achieve its goals of net zero by 2050, renewable energy will need to play a key role in achieving those targets. A variety of feasibility studies are underway to propose the best way forward in utilizing the City's existing renewable assets through expansion of generation capacity as well as implementing additional renewable energy options. Staff will be working on new plan to explore renewable energy generation opportunities in all corporate facilities including Hamilton Water and its waste processing facilities.

NET ZERO INITIATIVE

In 2019, City council declared a climate change emergency. As a response to this declaration, the City committed to becoming a net zero emissions city by 2050. This target was solidified in the five-year review of the Corporate Energy and Sustainability Policy document in 2020 which supports corporate goals. Additionally, the City created a Climate Change Office to help achieve these long-term targets by guiding overall City policy (community and corporate). There is no one clear route to achieving net zero emissions. It requires a broad combination of various projects and programs, operational changes, renewable energy generation and electrification. In order to facilitate all that must be accomplished, a forward-looking plan or "pathway" is required.

PATHWAY TO NET ZERO

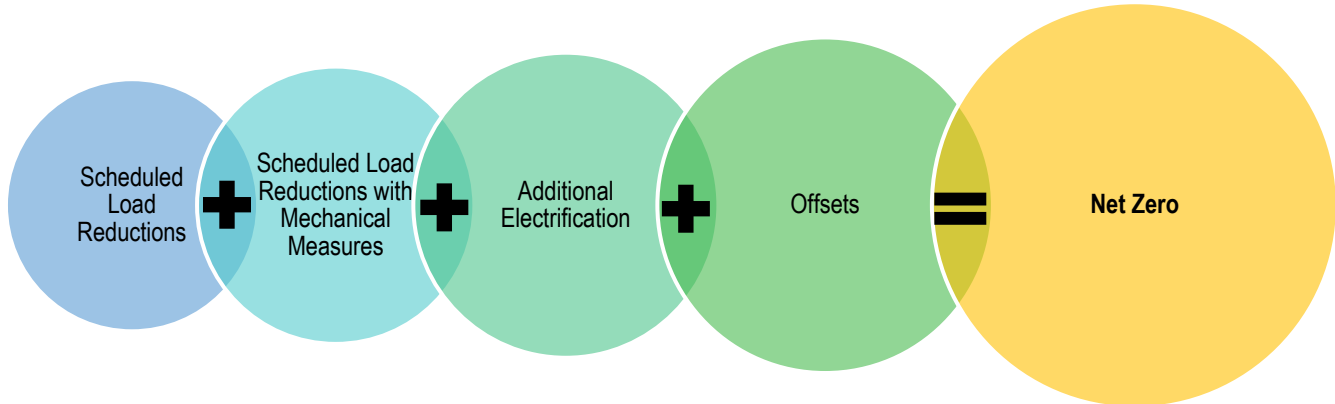
As part of the City declaration, city staff looked toward its corporate assets. Energy Initiatives engaged a consultant to review City facility energy usage data and existing asset/equipment replacement schedules and prepare an overall strategy that would create a pathway toward net zero carbon emissions (operational) for the entire Corporate building portfolio.

The strategy was developed through site walkthroughs and staff interviews, facility program data and analysis of the utility data. The study provided an overview for different carbon reduction scenarios including a tiered pathway approach. Ultimately, the pathway to net zero scenario is intended to allow for achievement of net zero carbon by 2050 by taking a practical approach that aligns but moves beyond the existing asset replacement plans while still incorporating important elements of those plans. For example, when replacing building components, instead of like-for-like replacements, buildings should be upgraded with more energy efficient equipment and components, with a

focus on phasing out natural gas equipment in favor of electric where viable. Lastly, considering renewable energy options wherever possible, solar thermal, ground source heat pumps, and waste gas capture.

This pathway incorporates several tiers that together demonstrates a series of cumulative efforts to pursue net-zero carbon energy consumption for Corporate buildings:

Figure 14: Pathway to Net Zero for Facilities



The pathway estimates the following:

- Scheduled load reductions – will decrease the GHG emissions by 20%;
- Scheduled load reductions and mechanical measures will decrease the GHG emissions by 72%;
- Additional electrification combined with the previous two measures will decrease the GHG emissions by 88%; and
- Offsets will be the final gap and reduce the emissions to 100%.

In short, combined efforts with a focus on GHG emissions-reducing project work (energy efficient equipment replacements), coupled with renewable energy generation and electrification, is key to meeting the corporate goals.

The study and overall strategy were a critical first step in developing the long-term plans needed to achieve these targets. As a result, specific pathways to net zero reports (PNZ reports) have been developed initially for 10 facilities to outline the actions required to achieve the net zero goals. The facilities chosen were a cross section of the corporate facilities portfolio including arenas, recreation centres, a fire station, a town hall and a few city public works yards. While the PNZ reports are specific to the facility, many of the activities included in these pathways can be extrapolated for use in other similar buildings.

- Harry Howell Arena
- Morgan Firestone Arena
- Chedoke Arena
- Jimmy Thompson Pool
- Ryerson Recreation Centre
- 330 Wentworth Operations Centre
- Traffic Operations Yard
- Dundas Town Hall
- Fire Station 5 complex
- Mountain Transit Centre

The strategy and the PNZ reports serve as guidelines and are shared with the Facilities Operations & Maintenance and Strategic Planning, Capital and Compliance groups, so these documents can add support to feasibility studies for overall facility upgrades. Moving forward, Energy Initiatives is continuing to communicate effective actions and recommendations for more efficient equipment, electrification options and/or alternate fuel sources, and funding opportunities to target the facilities and portfolios that have the highest emissions. It is a collaborative endeavor and requires input and expertise throughout the corporation.

City staff will continue to deploy resources across departments to meet these targets and monitor successes and adjust the pathway along the way.

CORPORATE GREENHOUSE GAS (GHG) REPORT: 2021 INVENTORY

GHG emissions related to corporate operations have been inventoried and reported annually since the adoption of the Corporate Air Quality and Climate Change Strategic Plan (PED06336(a)) in 2008 and the Board of Health Climate Change Actions 2012 report (BOH13024). The original targets were a 50% reduction by 2030 and an 80% reduction in GHG emissions by 2050 from the base year 2005. With the update to the Corporate Energy and Sustainability Policy, the long-term target was updated to **net zero emissions** by 2050 when compared to the base year 2005.

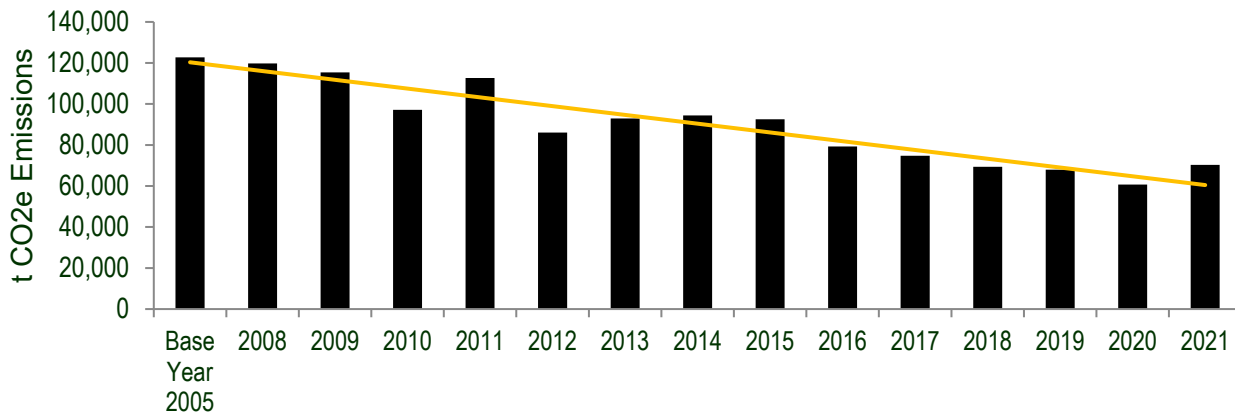
The GHG reporting is a year behind the energy reporting, and therefore the following results are for the 2021 annual inventory. As a reminder from the 2020 report, the base year 2005 was revised in 2020 to accommodate two changes; the removal of employee commuting; and the move of small vehicles category into the vehicle fleet category.

2021 INVENTORY RESULTS

Considering that the data presented here is for the 2021 calendar year, the effects from pandemic responses were still impacting overall usage in the City and some services were reduced, particularly notable in buildings. However, efforts to reduce emissions through energy efficiency continued to be a priority during this period as well. Additionally, an emissions calculation error was corrected in 2021 related to the vehicle fleet and contracted fleet sectors which showed emissions had been previously under-reported.

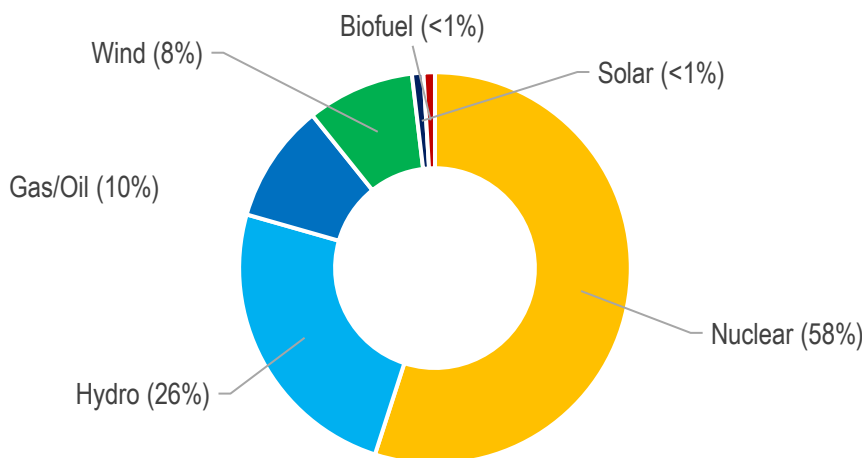
In 2021, the GHG corporate emissions inventory was 70,271 tonnes of CO₂e (carbon dioxide equivalent). This represents a 43% reduction from the 2005 base year (122,699 tonnes CO₂e/) and 16% increase compared to 2020. The inventory does not include HRPI operations.

Figure 16: City of Hamilton Corporate GHG Emissions Year Trends 2005-2021



The inventoried emissions have been on a downward trend since 2005, and several factors have contributed to this trend over the years. Regulatory impacts such as the removal of coal-fired generation as part of the generation supply mix, was significant. Overall, as Ontario increases its use of cleaner energy sources for its electrical generation supply, the lower the City's use of electricity impacts the emissions inventory. The following diagram depicts the energy output by fuel type for 2021. This is reported by the Independent Electricity System Operator (IESO) for transmission-connected generation. It does not include embedded generation but shows what makes up the supply mix which can vary year to year depending on availability. The provincial emissions factors are impacted by changes to the generation mix.

Figure 17: 2021 Ontario Energy Output by Fuel Type⁶

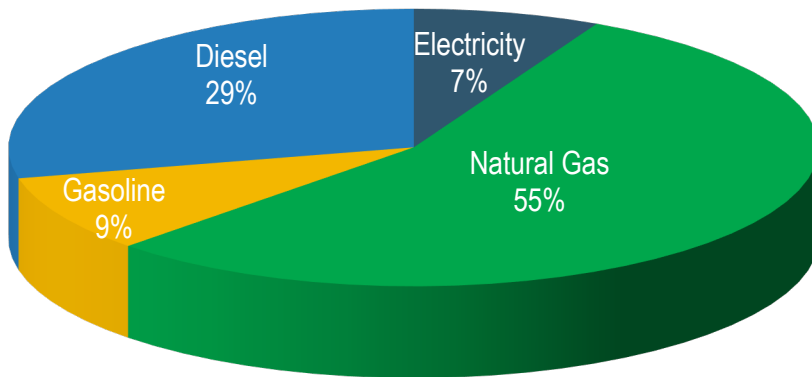


In addition to electricity emission factors, other impacts to the City's inventory include completion of energy efficiency projects, reductions in usage from operational improvements and fuel switching, such as Transit's ongoing conversion from diesel buses to CNG-powered buses. Future developments around this area, particularly the utilization of renewable natural gas and electric-power transportation for City's fleet and transit vehicles should

⁶ IESO source: <https://ieso.ca/en/Power-Data/Supply-Overview/Transmission-Connected-Generation>

significantly impact GHG emissions for the City. In 2021, Transit, in partnership with Enbridge Gas, announced Ontario's first carbon-negative bus fueled by renewable natural gas. The goal of the one-year RNG pilot was to demonstrate reduced emissions from the City's public transit operations. The pilot also extended into 2022.

Figure 18: 2021 Percentage of tCO_{2e} Emissions by Fuel Source



Corporately, the generation mix for the City's inventoried emissions is as follows: electricity, natural gas, diesel and gasoline. Ideally, renewable energy sources would be used to offset the higher emissions fuel sources such as diesel, gasoline and natural gas. Of note, the natural gas is used in both buildings and to power 65% of the City's bus fleet.

The emissions from all related fuel sources by sector; buildings, vehicles and processes are shown in Figures 19 and 20 below. Of the reported sectors, vehicle fleet remains the largest emitter with 51% of corporate emissions for 2021. Corporate buildings represent 29% and Water and Sewage operations with 17% round out the top 3. The other sectors account for the remaining 3% of emissions in 2021.

Figure 19: 2021 Percent tCO_{2e} of Total by Reporting Sector

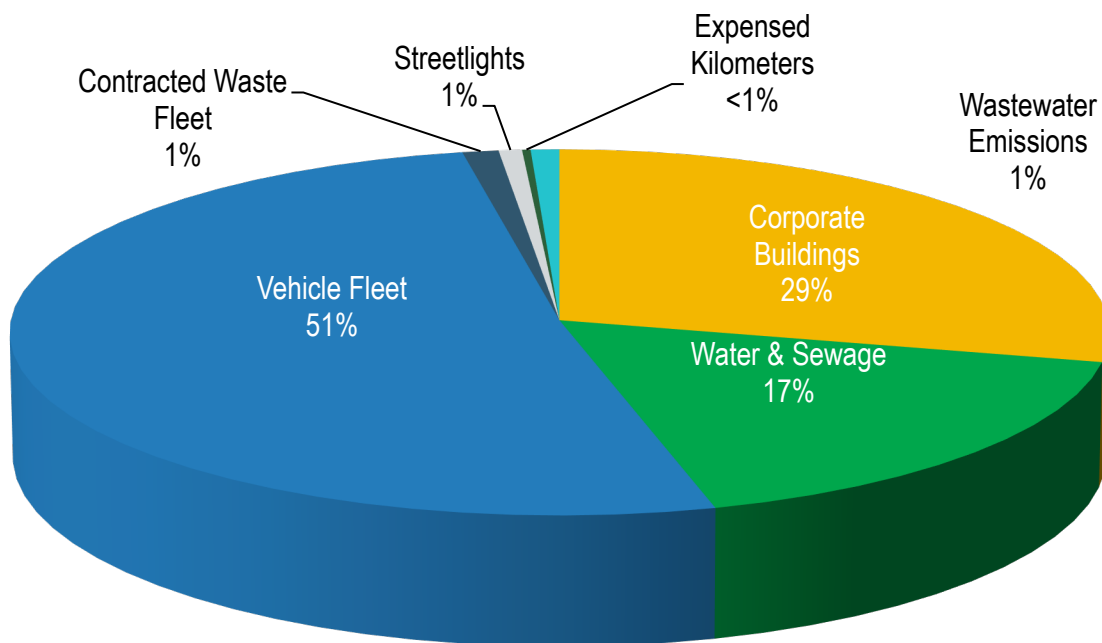


Figure 20: 2021 Breakdown of tCO₂e by Sector

Sector	2021 Total CO₂e	2021 Vs Base	2021 Vs 2020
Corporate Buildings	20,126	-57%	-4%
Vehicle Fleet	36,025	0%	35%
Water and Sewage Buildings	11,997	-52%	10%
Street lights	513	-94%	-17%
Contracted Waste Fleet	795	-85%	44%
Expensed Kilometers	186	-62%	-14%
Wastewater Emissions	629	20%	-1%
TOTAL	70,271	-43%	16%

Corporate buildings show a significant reduction in emissions of 57% compared to 2005. The reductions here are mainly attributed to lower usage from energy efficiency work and lower Ontario emissions factors from changes in the province’s energy supply mix. For 2021 reductions were compounded by lower usage from varying degrees of building closure or shifts in operational hours due to the COVID-19 safety plans.

Vehicle fleet includes emissions from diesel, gasoline and natural gas. The 2021 emissions show no overall reduction when compared to the 2005 base year. In calculating the emissions for the 2021 year, an error was discovered in the calculation model that revealed that the emissions inventory for compressed natural gas (CNG) had been under-reported for several years in the Vehicle Fleet and Contracted Waste Fleet sectors. As a result, the correction has been made to the calculation formula and is now accurately reported for 2021. It is important to note that the base year was not impacted because there were not any natural gas fueled vehicles at that time, so no adjustments have been made to the base year in either of the impacted sectors. Additionally, Transit is the primary user of natural gas vehicles, for City buses, therefore it should also be noted that Transit has also increased its fleet size. Although it is accurate that fuel switching from diesel buses to CNG fueled buses have lowered emissions comparatively, the inventory (composition of fleet vehicles) has also changed. However, the emissions were positively impacted by an RNG-fueled pilot bus which utilized RNG that was carbon negative and reduced the emissions by ~222 tCO₂e in 2021.

The 2021 emissions from Water and Sewage buildings has increased compared to 2020, with the addition of a natural-gas fueled biosolids processing operation at the Woodward site. However, this sector still shows a reduction of 52% when compared to 2005 base year.

It is important to re-iterate that a majority of the GHG emissions here are directly tied to usage and is an inventory of calculated emissions, and therefore with the overall fluctuations in usage during 2021, corrections to the calculation model and some increases in assets, the resulting GHG emissions may not be an accurate reflection of a “typical” year. Further reduction plans would be required to maintain this downward trend regardless of an increased usage from pandemic recovery. As the City moves forward to achieve net -zero corporate emissions, a combination of energy efficiency and an increase in renewable fuel sources will be required to meet ambitious targets.

2022 ENERGY REPORTING FINAL COMMENTS

In 2022, the City was largely “back to normal”. That is, City operations were tracking at pre-pandemic levels. Public services and sites were open for business, and transit operations were running full schedules. Even if facilities were operating with reduced in-person staffing levels at some sites, the buildings continued to be heated and cooled.

The data for 2022 showed an increase in energy intensity when comparing to the impacted pandemic years in 2020 and 2021, but a small decrease in energy intensity when compared to the last pre-pandemic year of 2019. Overall, energy intensity is trending downward. Energy efficient project activity did continue to deliver some energy usage reductions and GHG reductions.

However, maintaining just a downward trend is not enough. Hamilton has long-term goals to reduce its energy intensity by 50% and to become a net-zero city by 2050. Both of those goals are ambitious and will require all City departments to implement actionable plans and policies to actively reduce energy usage and GHG emissions. Many divisions have begun to address the targets by:

- Improving operational efficiencies with equipment and lifecycle replacements;
- Creating green policies for procurement of new equipment;
- Creating resiliency policies around climate change;
- Forming Pathway to Net Zero plans; and
- Utilizing low or carbon neutral fuels;

Implementing new innovative technology, investing in renewable energy generation and carbon-reducing/carbon-neutral projects and prioritizing climate action is imperative across the City if we hope to meet the 2050 targets.

Additionally, the creation of the Office of Climate Change Initiatives will play a large part in establishing policies and programs toward achieving the net zero goals for the City as a whole. The Energy Management office will continue to support Climate Change Initiatives through identification, recommendation and implementation of key energy and emission reduction projects including low carbon fuel generation and resiliency projects.

As always, continued measurement and reporting on results help to identify where the City falls in line with its goals and allows for more targeted decision-making as we move through the ever-changing energy landscape. Additional details on specific reporting items can be found in the Appendix A.

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

APPENDIX A

This appendix provides additional information, charts and graphs for more specific details on KPI results and impacts to various KPIs for 2022 as presented in the report.

Energy Strategies and Programs KPIs

The following charts outline some of the results from the Energy Strategies and Programs, including the cumulative results in 2005.

Figure A-1: Cumulative Savings and Avoided Costs 2005-2022

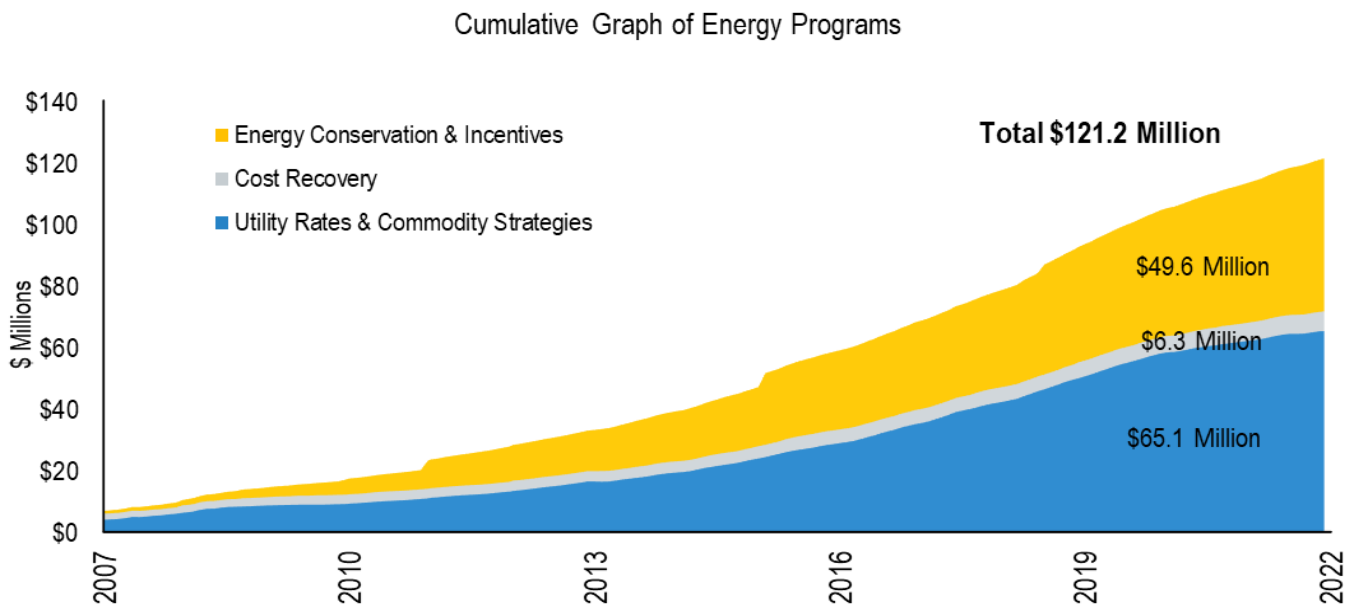
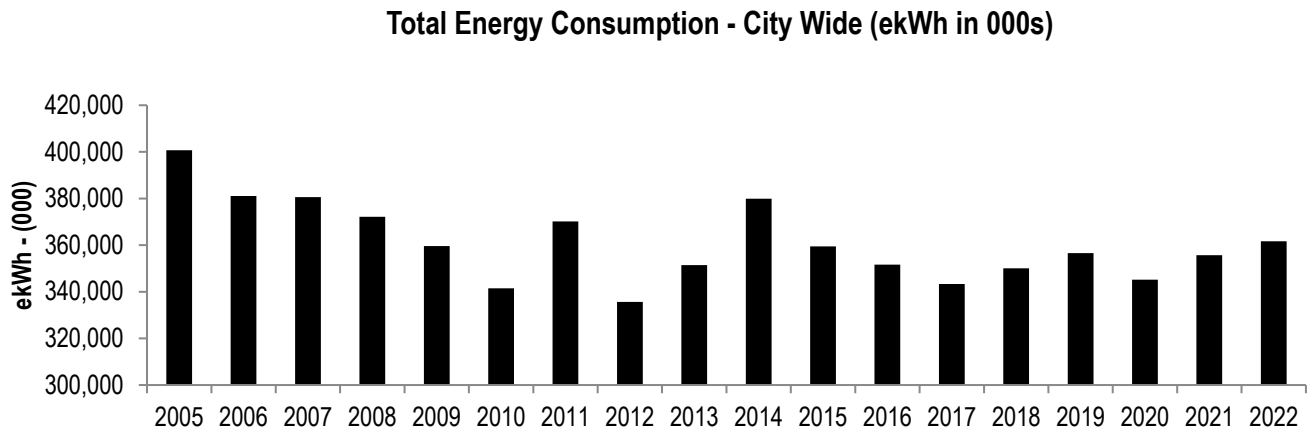


Figure A-2: Three Year Comparison of Energy Programs and Strategies

Category	Past 3 Years			2006-2022 Cumulative
	2020	2021	2022	
Levy RPP/Interval Change	\$0	\$0	\$0	\$2,886,651
Rate RPP/Interval Change	\$0	\$0	\$0	\$2,873,163
Levy Global Adjustment	\$1,687,244	\$1,125,127	\$929,594	\$12,144,620
Rate Global Adjustment	\$5,709,856	\$2,511,526	\$2,628,391	\$38,189,304
Levy Natural Gas	\$489,742	\$146,558	-\$86,195	\$7,720,686
Rate Natural Gas	\$134,580	\$79,586	-\$41,320	\$1,379,759
Energy Conservation Levy	\$3,154,851	\$3,443,080	\$3,891,267	\$32,417,402
Energy Conservation Rate	\$410,732	\$410,732	\$462,074	\$5,200,961
Incentives	\$160,138	\$73,292	\$215,504	\$12,036,336
Cash Recovery Levy	\$173,608	\$471,291	\$468,376	\$6,056,279
Cash Recovery Rate	\$0	\$47,684	\$38,679	\$321,738
Totals	\$11,920,752	\$8,308,876	\$8,506,370	\$121,226,901

Overall Costs, Consumption and Performance - Electricity and Natural Gas

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



The following two charts show the consumption of electricity and natural gas individually by portfolio.

Figure A-4: Electricity Consumption Comparison by Portfolio Category

Electricity Consumption	in 000's of kWhs		
	2005	2021	2022
City/Town Halls	4,736	3,271	4,042
Corporate Facilities	4,669	4,195	5,097
Street Lighting	33,603	17,770	17,465
Traffic Lighting	5,688	1,428	1,216
Other O&M	5,248	3,939	4,205
Hamilton Water	106,561	104,634	104,684
Yards	11,982	9,020	9,170
Arenas	17,834	11,251	12,534
Community/Senior Centers	1,258	850	1,329
Rec Centres/Pools	4,124	7,243	7,575
Tim Hortons Field	N/A	4,713	6,046
Rec Parks/Stadiums/Golf	3,885	2,453	2,912
Lodges	4,673	5,216	5,276
Culture	2,254	1,539	1,957
Fire/ EMS	3,766	4,500	4,677
Libraries	7,314	7,464	7,212
First Ontario Centre	6,578	5,689	Removed
First Ontario Concert Hall	3,552	1,870	Removed
Hamilton Convention Centre	3,026	1,608	Removed
Police	5,613	6,046	5,899
Total Electrical Consumption	236,362	204,699	201,298

Figure A-5: Natural Gas Consumption by Portfolio Category

Natural Gas Consumption	in 000's of M3s		
	2005	2021	2022
City/Town Halls	847	324	446
Corporate Facilities	1,173	501	564
Street Lighting	0	0	0
Traffic Lighting	0	0	0
Other O&M	35	5	7
Hamilton Water	1,357	4,993	5,622
Yards	2,587	1,640	1,811
Arenas	2,068	1,199	1,586
Community/Senior Centers	241	177	221
Rec Centres/ Pools	2,124	1,907	2,169
Tim Hortons Field	N/A	292	274
Rec Parks/Stadiums/Golf	417	259	231
Lodges	1,899	946	813
Culture	293	162	195
Fire/ EMS	650	647	724
Libraries	190	267	303
First Ontario Centre	332	348	Removed
First Ontario Concert Hall	179	213	Removed
Hamilton Convention Centre	153	183	Removed
Police	857	511	515
Total NG Consumption	15,404	14,574	15,480

Figure A-6: Total Combined Consumption by Portfolio Category (ekWh)

Total Energy Consumption	in 000's of ekWhs		
	2005	2021	2022
City/Town Halls	13,775	6,623	8,662
Corporate Facilities	17,188	9,381	10,936
Street Lighting	33,602	17,770	17,465
Traffic Lighting	5,688	1,428	1,216
Other City Operations	5,618	3,986	4,275
Hamilton Water	121,040	156,362	162,930
Yards	39,589	26,016	27,935
Arenas	39,904	23,673	28,967
Community/Senior Centers	3,834	2,681	3,622
Rec Centres/ Pools	26,789	27,000	30,043
Tim Horton's Field	0	7,737	8,880
Rec Parks/Stadiums/Golf	8,332	5,134	5,301
Lodges (Macassa, Wentworth)	24,938	15,018	13,699
Culture	5,383	3,222	3,975
Fire/ EMS	10,698	11,203	12,181
Hamilton Public Libraries	9,343	10,235	10,351
First Ontario Centre	10,122	9,292	Removed
First Ontario Concert Hall	5,466	4,077	Removed
Hamilton Convention Centre	4,656	3,508	Removed
Hamilton Police Services	14,757	11,338	11,238
City Wide Total	400,722	355,683	361,676

Figure A-7: Total Annual Reported Costs Electricity & Natural Gas (Facilities)

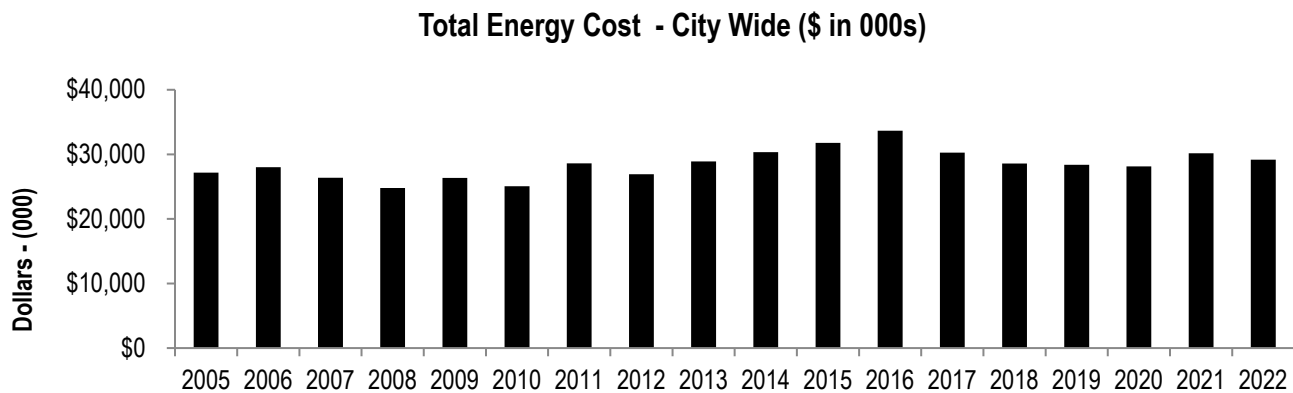
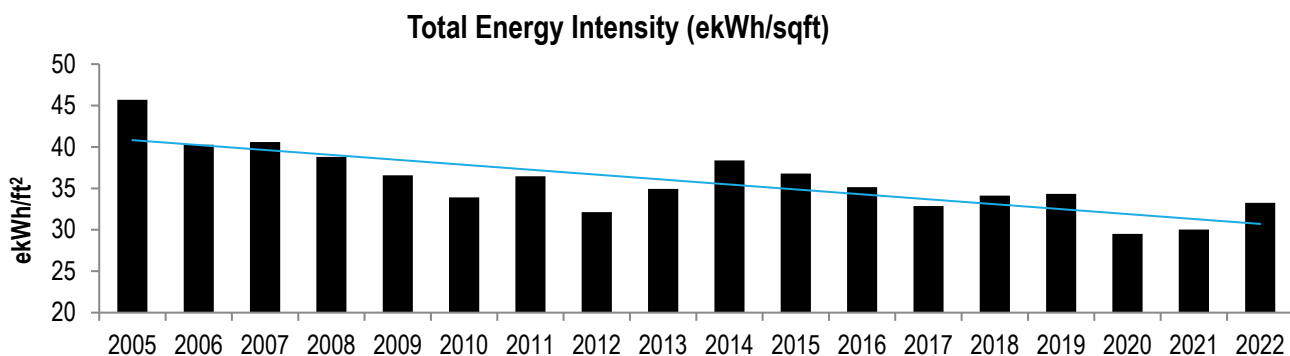


Figure A-8: Total Reported Cost Comparison by Portfolio Category

Total Energy- Cost	in 000's of \$				Comparisons	
	2005	2020	2021	2022	2022 vs 2005	2022 vs 2021
City/Town Halls	\$860	\$673	\$599	\$826	-4%	38%
Corporate Facilities	\$866	\$940	\$749	\$851	-2%	14%
Street Lighting	\$2,895	\$3,504	\$3,462	\$3,266	13%	-6%
Traffic Lighting	\$462	\$222	\$222	\$206	-55%	-7%
Other City Operations	\$534	\$628	\$497	\$551	3%	11%
Hamilton Water	\$9,590	\$10,507	\$12,427	\$12,245	28%	-1%
Yards	\$2,205	\$1,635	\$1,718	\$1,797	-18%	5%
Arenas	\$2,455	\$2,098	\$2,015	\$2,204	-10%	9%
Community/Senior Centers	\$224	\$212	\$190	\$270	21%	42%
Rec Centres/ Pools	\$1,192	\$1,555	\$1,554	\$1,673	40%	8%
Tim Horton's Field	\$0	\$686	\$775	\$836	#DIV/0!	8%
Rec Parks/Stadiums/Golf	\$564	\$374	\$451	\$495	-12%	10%
Lodges (Macassa, Wentworth)	\$1,087	\$756	\$831	\$800	-26%	-4%
Culture	\$338	\$218	\$215	\$283	-16%	32%
Fire/ EMS	\$614	\$795	\$775	\$826	35%	7%
Hamilton Public Libraries	\$827	\$920	\$865	\$873	6%	1%
First Ontario Centre	\$840	\$1,116	\$1,062	Removed		
First Ontario Concert Hall	\$454	\$285	\$307	Removed		
Hamilton Convention Centre	\$387	\$254	\$274	Removed		
Hamilton Police Services	\$783	\$746	\$1,173	\$1,163	49%	-1%
City Wide Total	\$27,177	\$28,125	\$30,161	\$29,166	7%	-3%

Figure A-9: Total Annual Energy Intensity City-wide (ekWh/sqft)



The following series of graphs represent the energy intensity results per site for 2022 within the specific portfolio categories. Sites that did not have square footage were removed but were included in the overall consumption and

costs data sets. Sites were only included if there were full data sets for the year. There is no energy intensity data for Hamilton Water and Operational (O&M) sites. Also note that the energy intensity axis value may be adjusted depending on grouping.

Figure A-10: 2021 Energy Intensity Corporate Facilities⁷

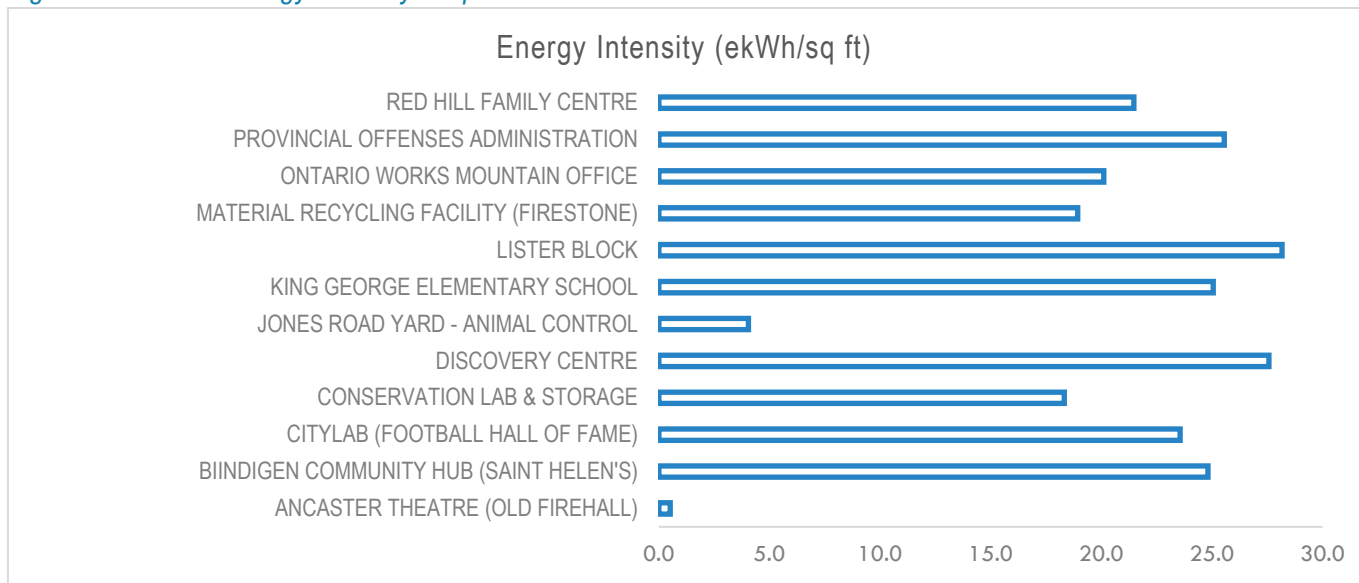
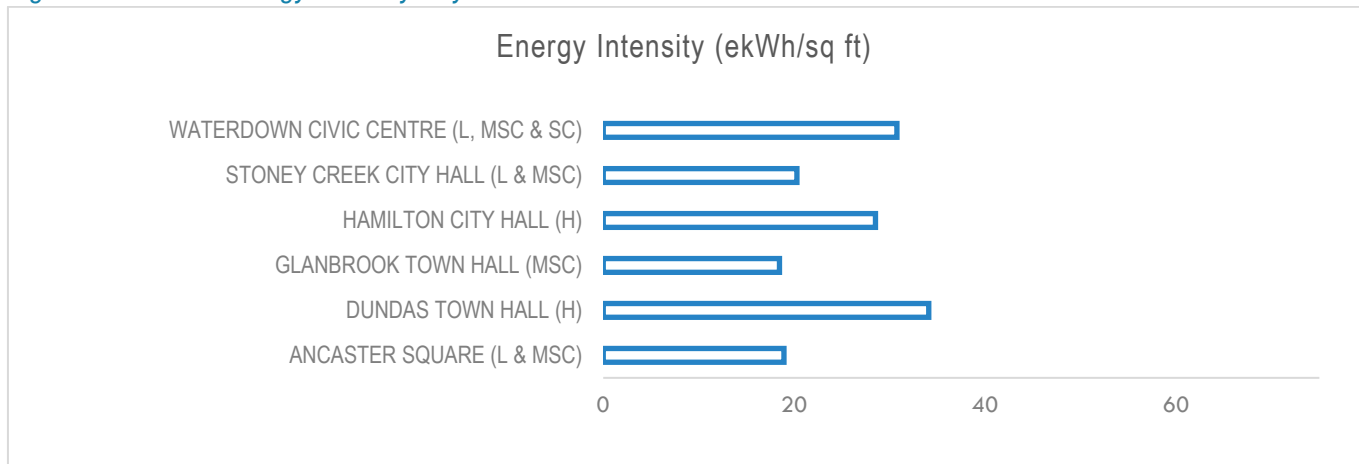


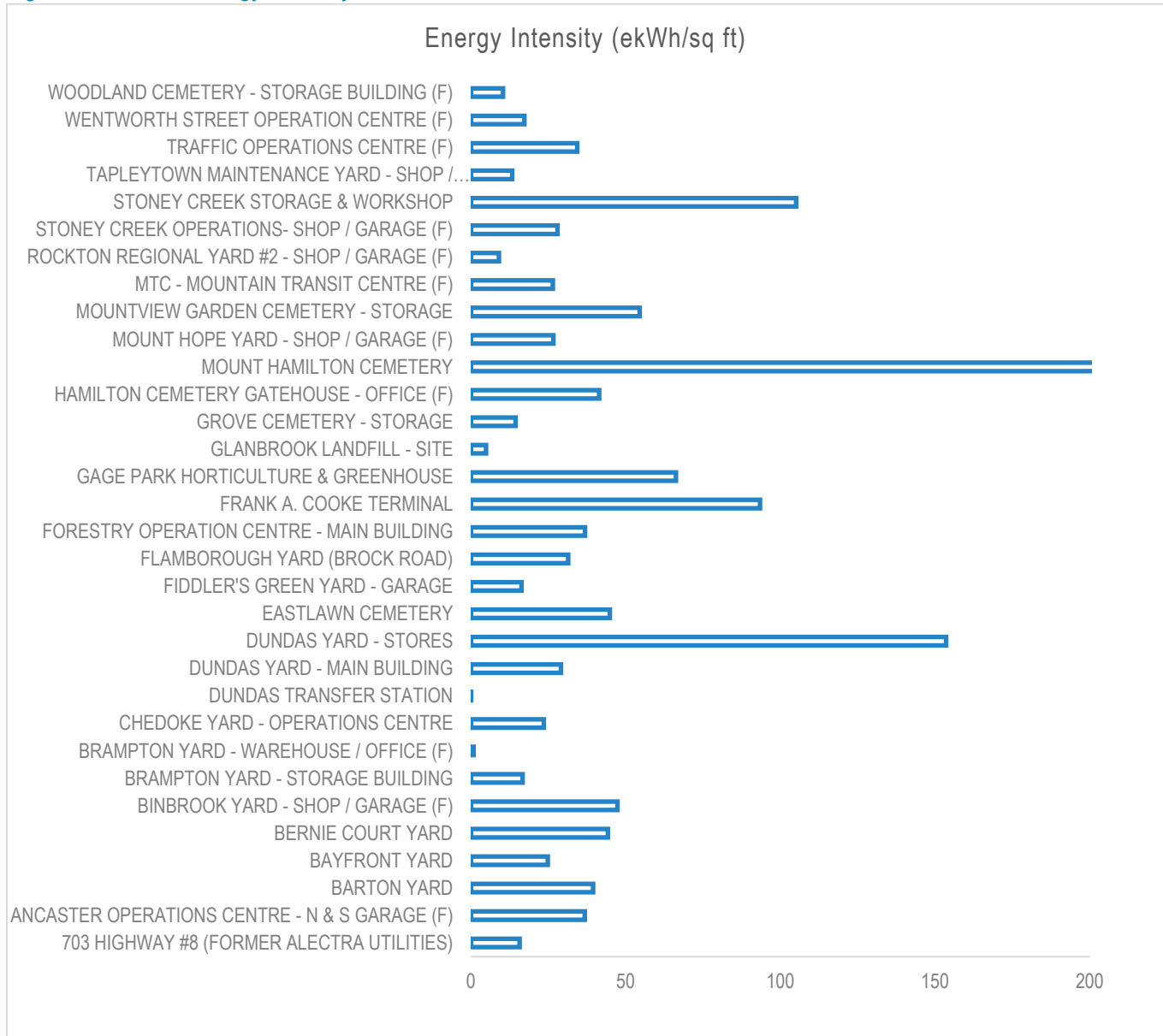
Figure A-11: 2021 Energy Intensity City & Town Hall Facilities⁸



⁷ Material Recycling Facility does not include consumption related to Composting facility operations – metered separately and operated by a third party.

⁸ Operation site notes: L = Library; MSC = Municipal Service Centre; SC=Senior Centre; H= Heritage.

Figure A-12: 2021 Energy Intensity Yards Facilities⁹



⁹ (F) = Fueling site on premises

Figure A-13: 2021 Energy Intensity Community Centres Facilities¹⁰

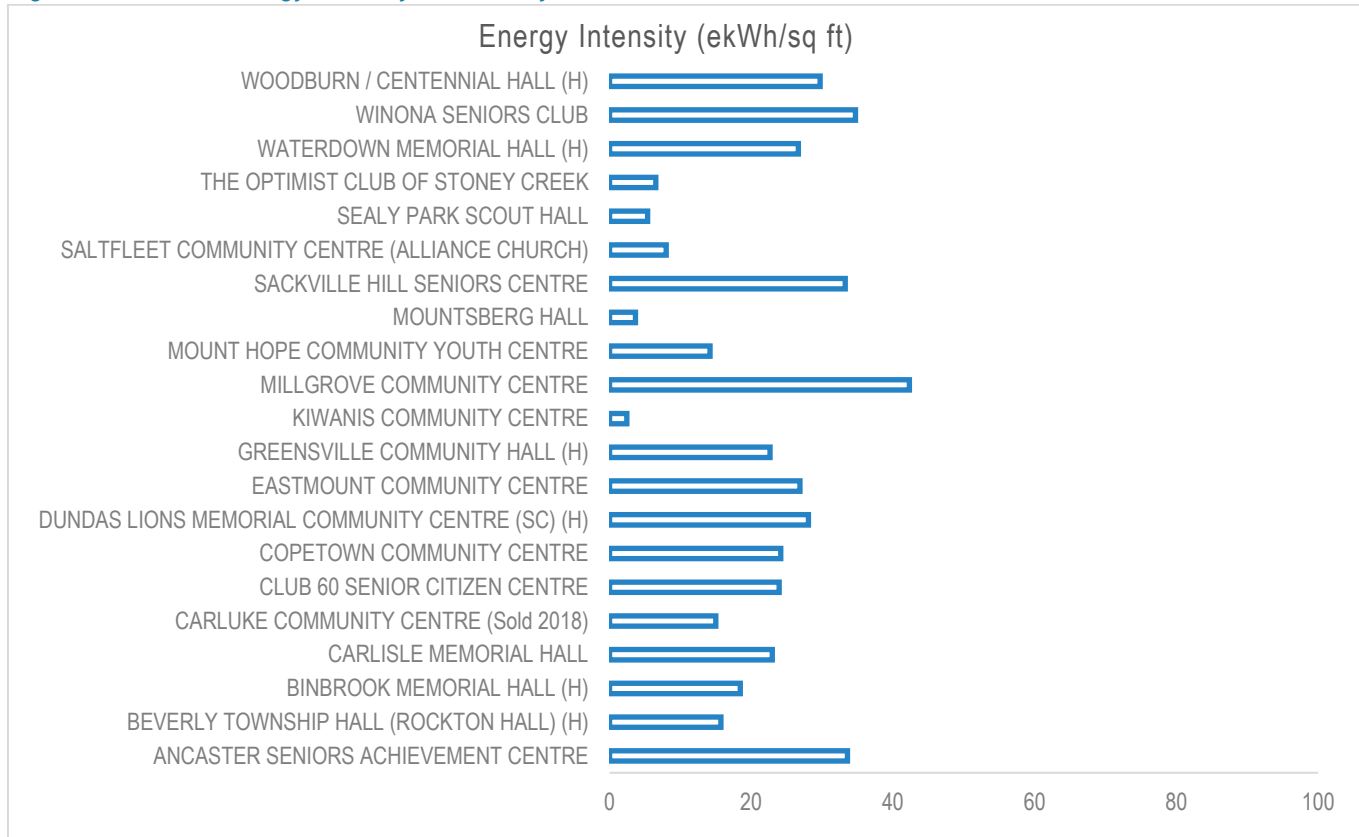
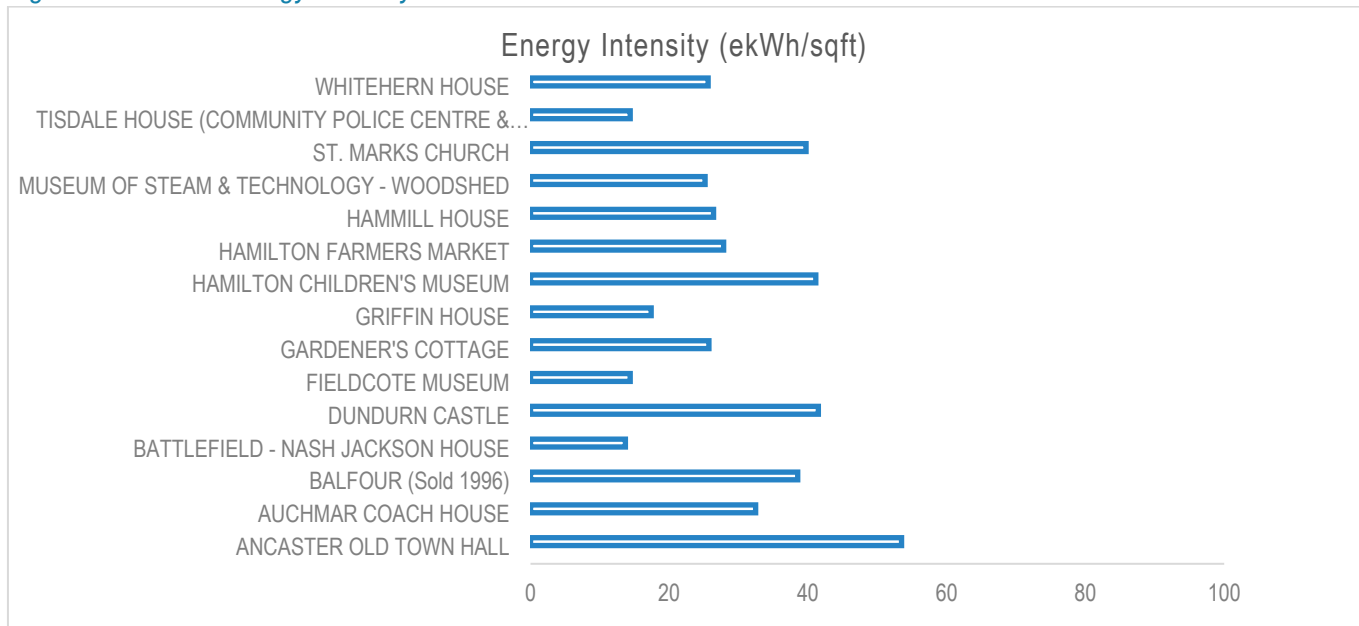
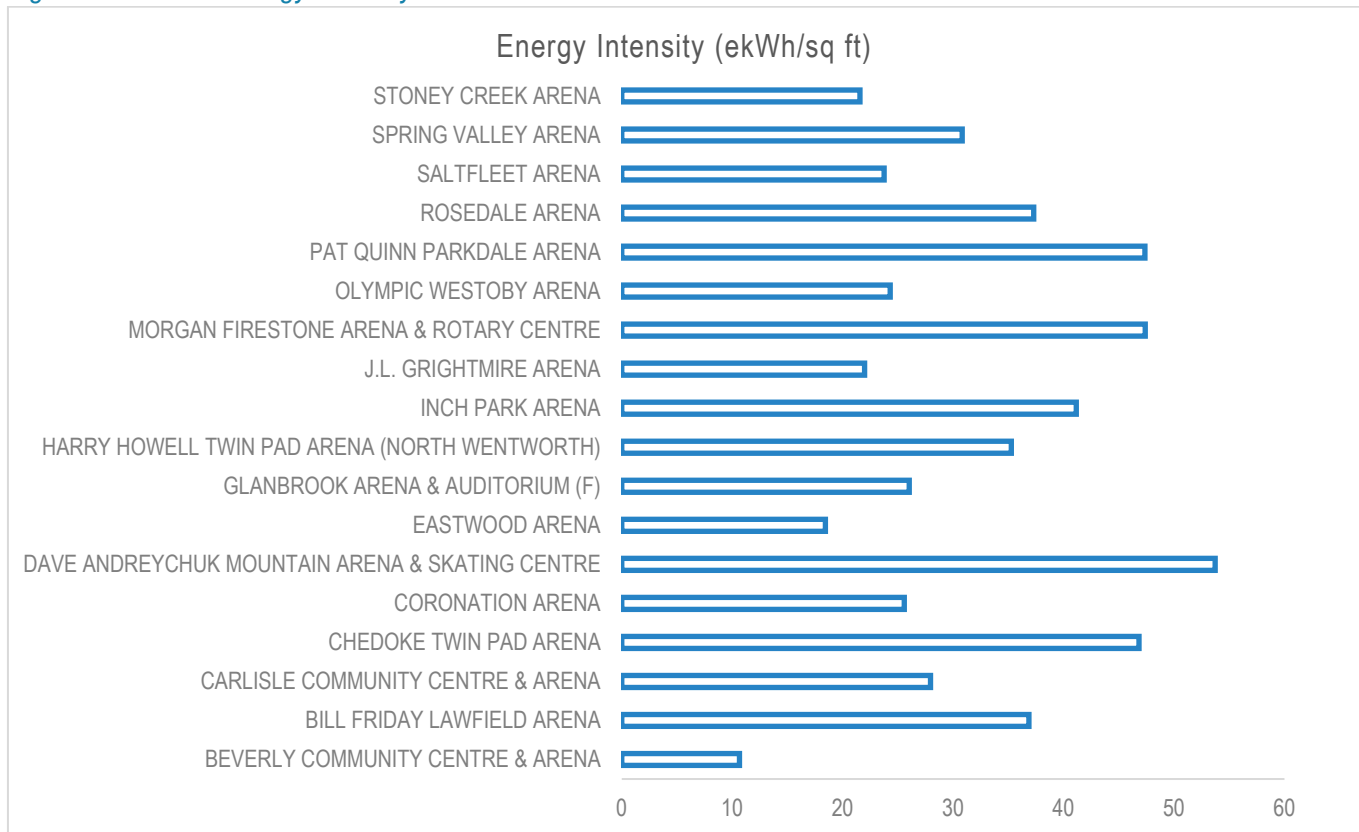


Figure A-14: 2021 Energy Intensity Culture and Museum Facilities



¹⁰ Operation site notes: (SC)=Senior Centre; (H)= Heritage.

Figure A-15: 2021 Energy Intensity Arena Facilities¹¹



¹¹ Valley Park Arena removed for 2021 and 2022 reporting year (includes data for arena, aquatic centre, community centre) due to major construction to several service areas. Completed mid-2022 and will be re-added to 2023 reporting.

Figure A-16: 2021 Energy Intensity Recreation Centres and Pools¹²

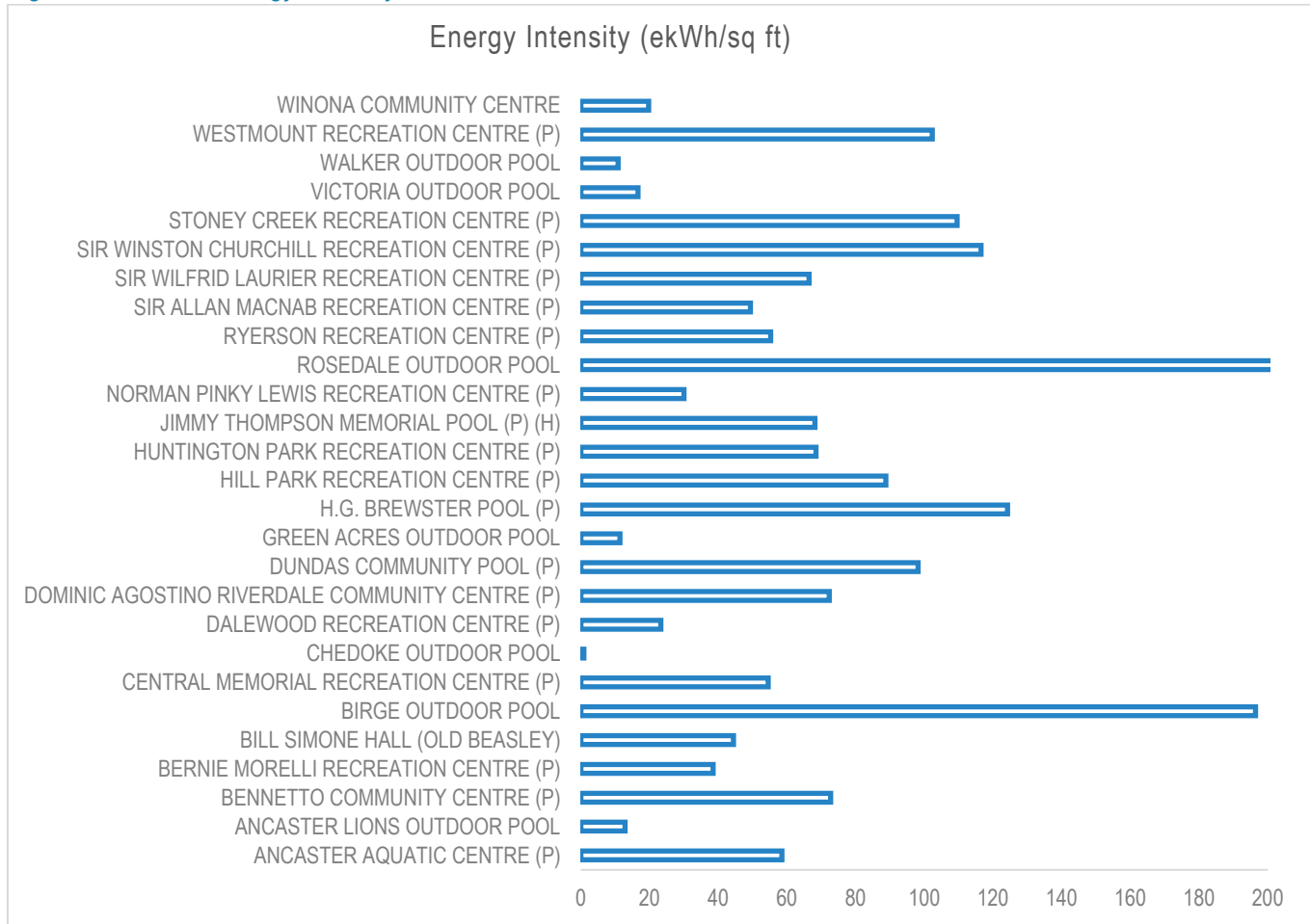
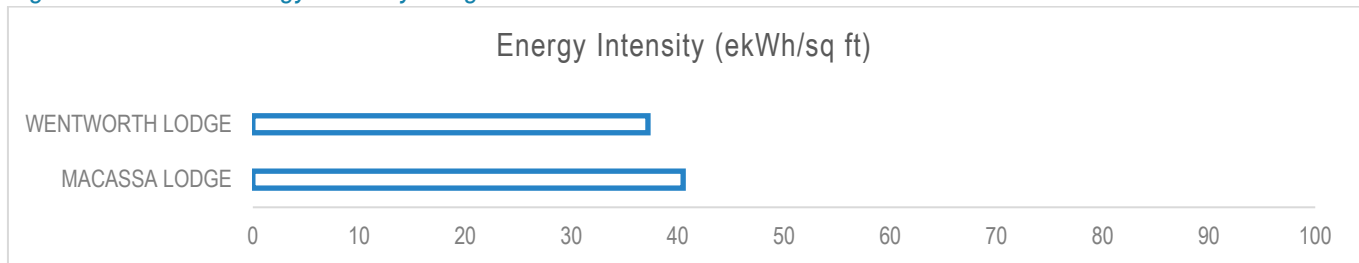


Figure A-17: 2021 Energy Intensity Lodges



¹² (P) = Pool on premises

Figure A-18: 2021 Energy Intensity Stadium, Golf Course Facilities and Recreation Parks Facilities

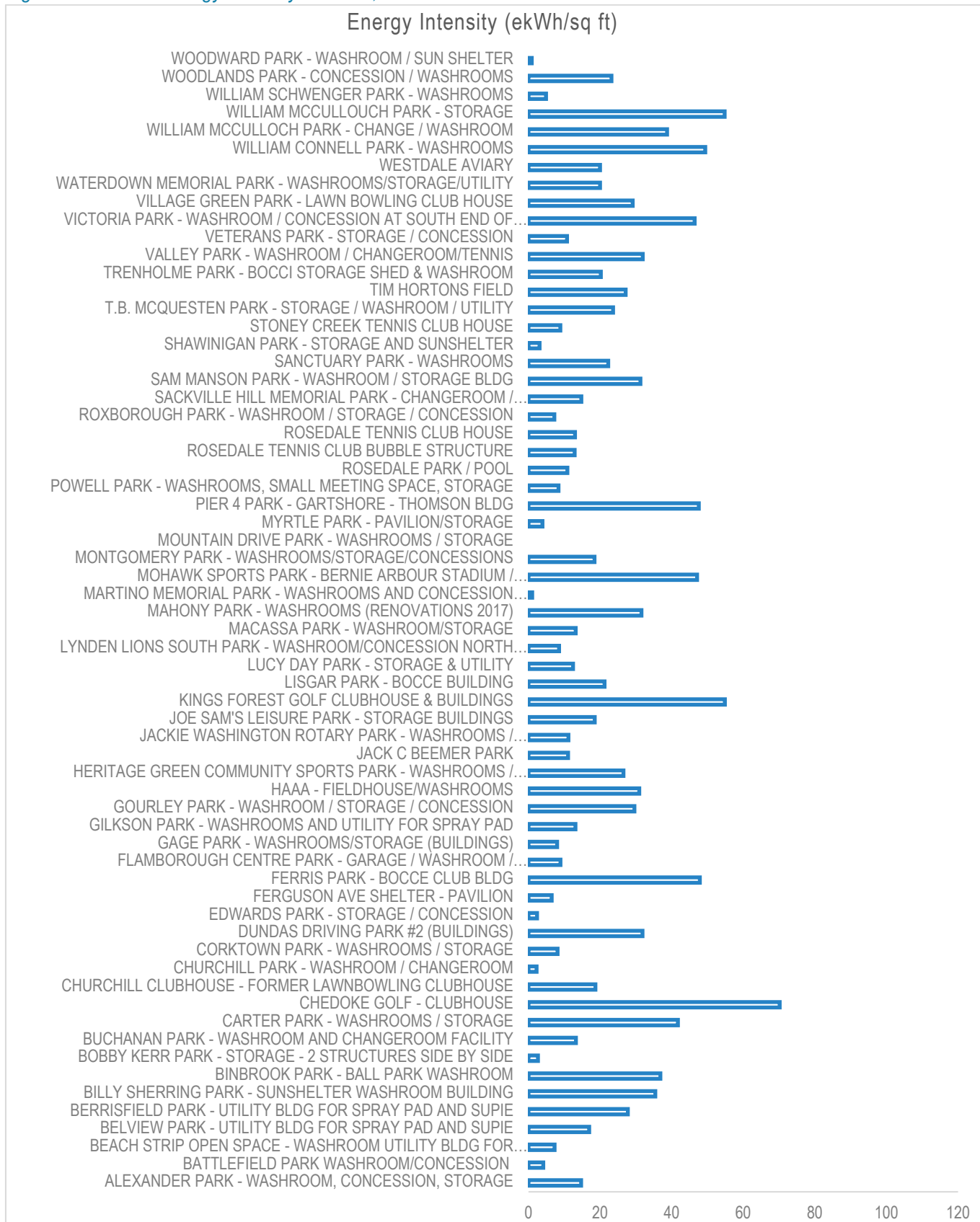


Figure A-19: 2021 Energy Intensity Fire and EMS Facilities¹³

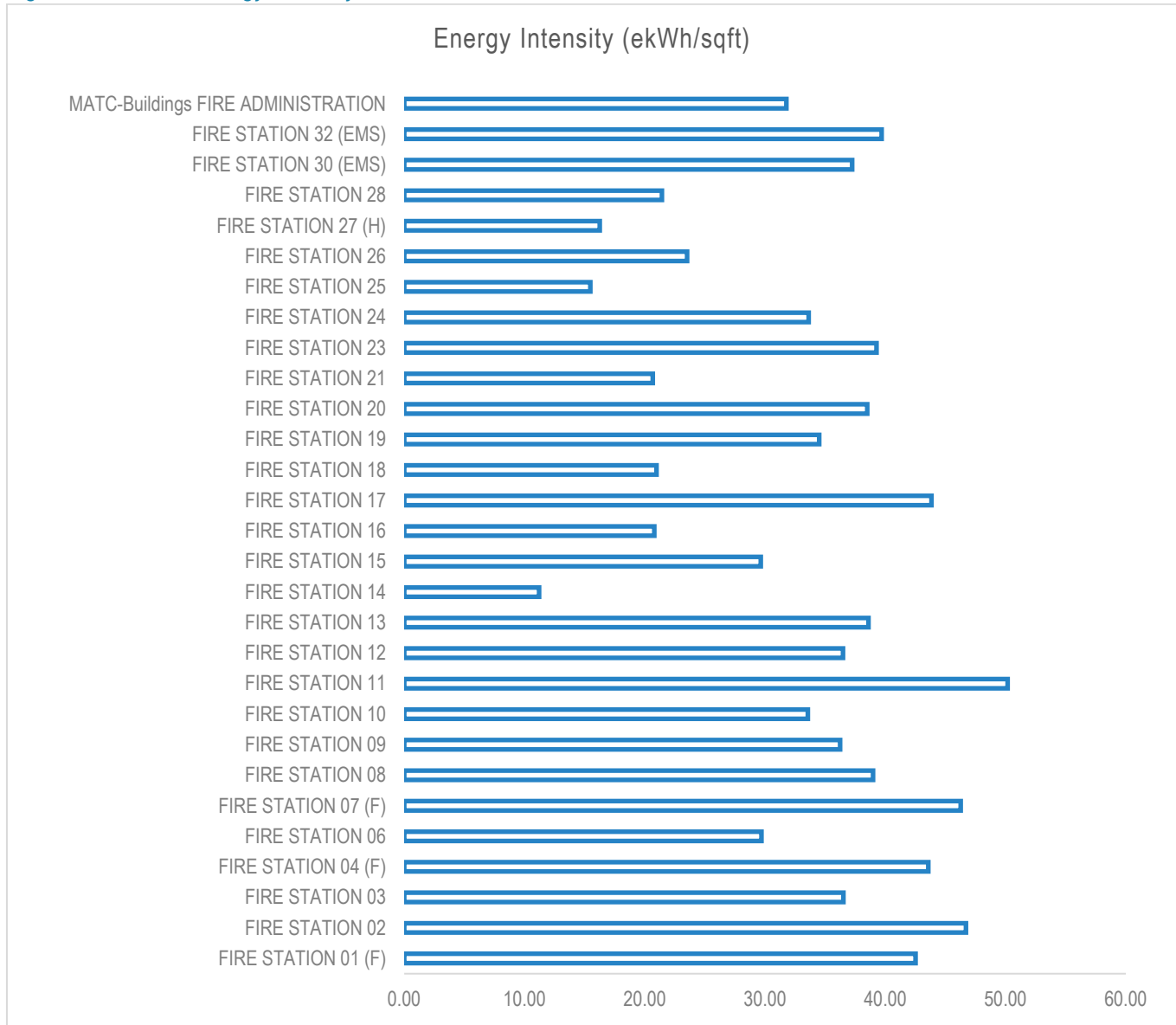
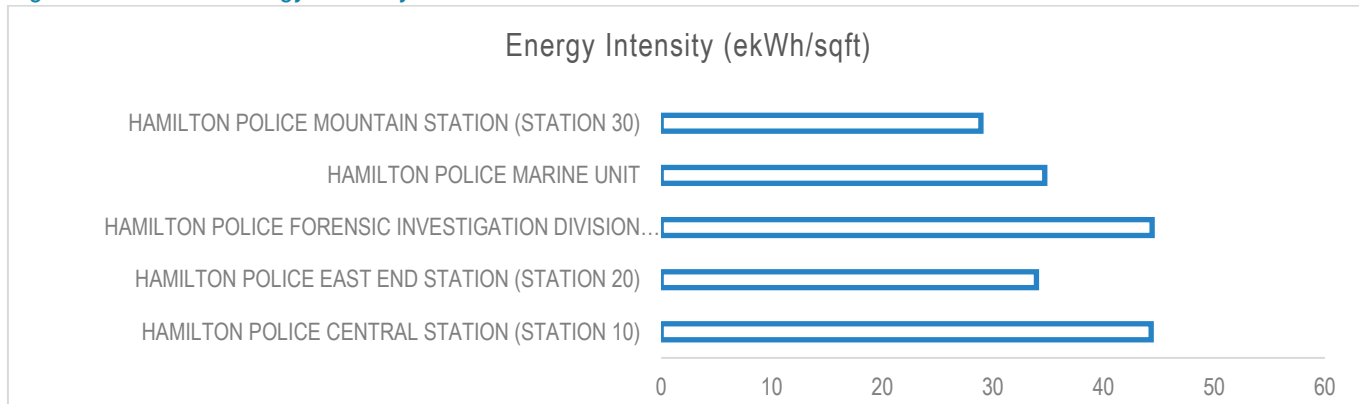


Figure A-20: 2021 Energy Intensity Hamilton Police Services Facilities



¹³ (F) = Fueling on premises; MATC site includes several buildings.

Figure A-21: 2021 Energy Intensity Libraries Facilities¹⁴

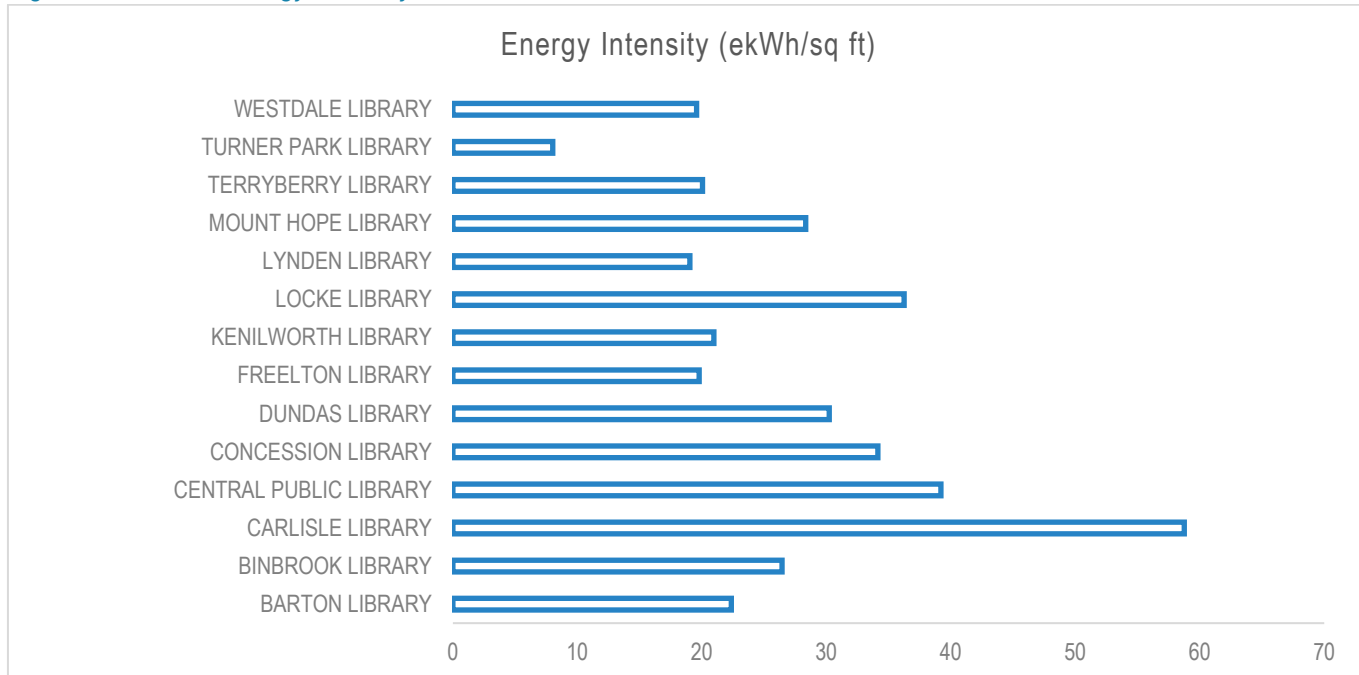
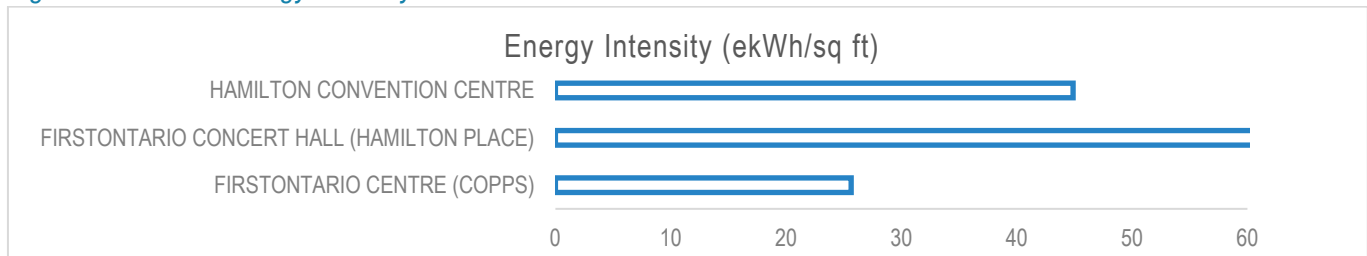


Figure A-22: 2021 Energy Intensity Entertainment Facilities¹⁵



Weather Data

Weather and temperatures can impact energy consumption for electricity, natural gas and fuel. Reviewing cooling degree days (CDD) and heating degree days (HDD) can help identify one reason why consumption could be higher or lower year over year. CDD is a measure of how much (in degrees) and for how long, the outside air temperature was higher than a specific base temperature. HDD is a measure of how much and for how long the outside temperature was lower than a specific base temperature. The base temperature for this reporting is 18 degrees Celsius and is sourced from Environment Canada.

According data for Hamilton weather station YHM, the annual Total cooling degree days in 2022 was 291. The total heating degree days in 2022 was 3729. Details are in the charts below.

¹⁴ Bookmobiles included in library facility usage and cost reporting, but not included in Energy Intensity calculation; Libraries located in Ancaster Square, Stoney Creek Town Hall & Library, Waterdown Library and Civic Centre included in City and Town Hall reporting category (shared utility meters).

¹⁵ Entertainment portfolio removed from reporting. Data is not included in Energy Intensity or included in consumption and cost. Operated by Third party.

Figure A-23: Weather Data for Hamilton (Environment Canada – Station YHM)¹⁶

MONTH	MEAN TEMP (°C)	HDD	CDD	2022 VS 2021 HDD	2022 VS 2021 CDD
JAN-22	-8.6	826	0	31%	
FEB-22	-4.9	642	0	-7%	
MAR-22	0.9	513	0	18%	
APR-22	5.9	362	0	11%	
MAY-22	15.2	109	26	-40%	46%
JUN-22	18.4	37	48	95%	-43%
JUL-22	21	0	93	-98%	49%
AUG-22	21.2	1	101	-77%	-21%
SEP-22	16.2	73	22	42%	99%
OCT-22	9.4	267	0	67%	-100%
NOV-22	4.6	376	1	-8%	
DEC-22	-0.7	525	0	-1%	
2022 ANNUAL TOTAL		3729	291	8%	-6%

Figure A-24: 2021 Comparison to 5 Year Average HDD & CDD

MONTH	HDD		CDD	
	5 YR AVG	2022 vs 5 Yr Average	CDD 5 YR AVG	2022 vs 5 Yr Average
JAN	713	16%	0	
FEB	594	8%	0	
MAR	517	-1%	0	
APR	377	-4%	0	
MAY	159	-32%	21	22%
JUN	31	16%	54	-12%
JUL	1	-93%	115	-19%
AUG	4	-86%	99	2%
SEP	62	17%	26	-16%
OCT	249	7%	3	-100%
NOV	435	-14%	0	400%
DEC	559	-6%	0	
AVERAGE	3703	1%	319	-9%

¹⁶ Source for weather data for HDD and CDD: https://climate.weather.gc.ca/historical_data/search_historic_data_e.html

Figure A-25: Heating Degree Days (HDD)

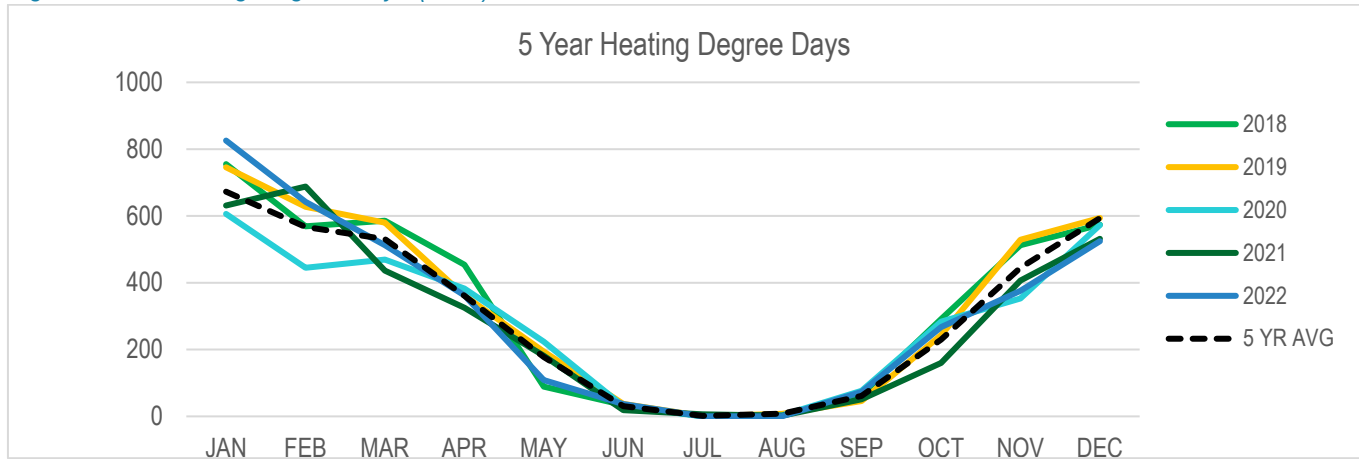
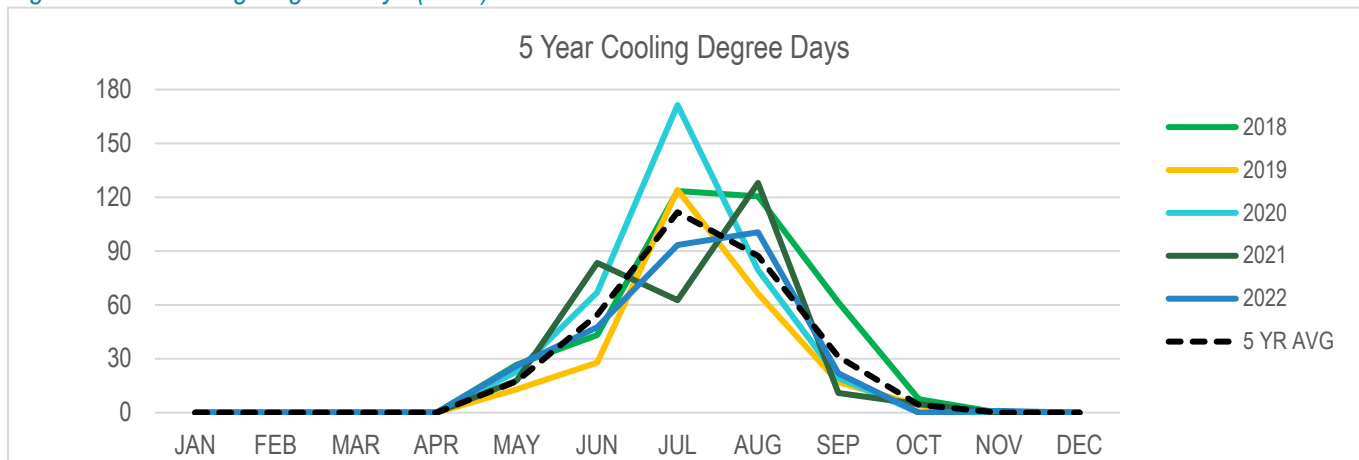


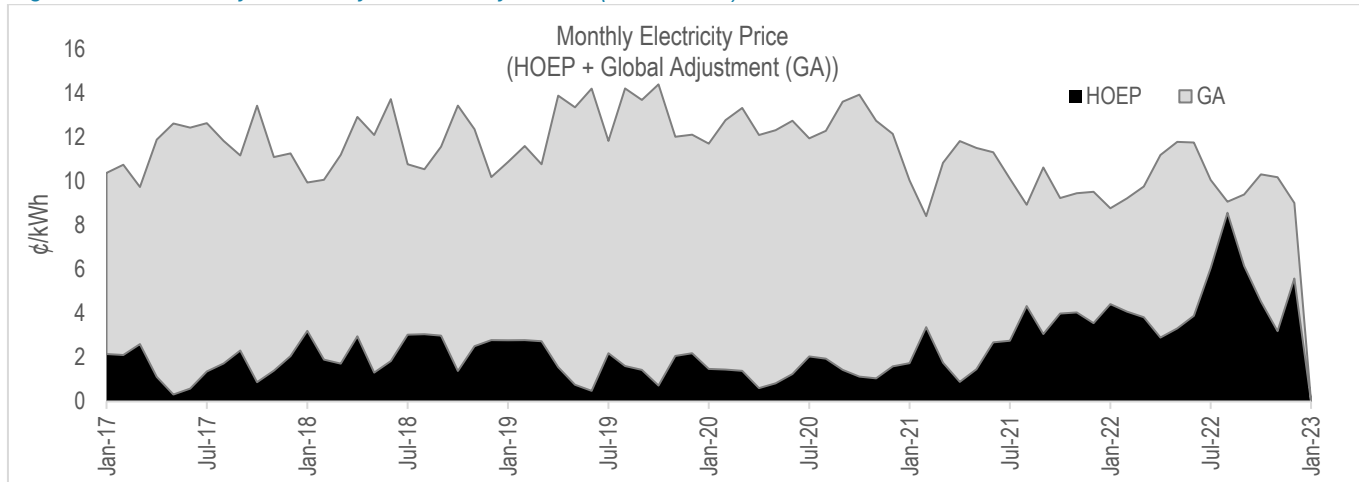
Figure A-26: Cooling Degree Days (CDD)



Electricity and Global Adjustment

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

Figure A-27: Monthly Electricity Commodity Prices (2017-2022)



For the Global Adjustment, consumers are divided into two rate classes. Most commercial consumers are Class B. Class B consumers pay the regulated GA rate set monthly. Eligible, high demand consumers can opt into a Class A rate under the IESO's ICI program¹⁷. The Class A rate consumers pay their GA rate based on a percentage contribution to the total provincial monthly GA costs, calculated during a peak setting period. The benefit to a Class A consumer is that they can impact their costs by reducing demand during peak periods. The City tracks these benefits and they are included in this report in the Energy Strategies and Programs under "Utility Rate and Commodity Strategies". The City has the following Class A sites: 900 Woodward Ave., 700 Woodward, 850 Greenhill Ave., 78 Kenilworth Ave., Tim Horton's Field¹⁸ and CUP Operations.

The following graph shows the City's cumulative benefits and 2022 benefits from the rate optimization under the ICI program.

Figure A-28:2022 and Cumulative Class A Global Adjustment Results

2022	Standard Global Adjustment Charge	Actual Global Adjustment Charge	Cost Benefit		Year	Annual Benefit
Jan	\$381,633	\$158,202	\$223,431		2011	\$1,061,230
Feb	\$428,758	\$166,622	\$262,136		2012	\$1,511,939
Mar	\$536,189	\$194,436	\$341,753		2013	\$2,598,221
Apr	\$707,716	\$229,760	\$477,956		2014	\$2,348,577
May	\$738,477	\$243,680	\$494,796		2015	\$3,911,299
Jun	\$664,185	\$240,635	\$423,550		2016	\$4,682,209
Jul	\$384,969	\$143,674	\$241,295		2017	\$5,976,102
Aug	\$47,088	\$18,319	\$28,769		2018	\$6,404,572
Sep	\$286,139	\$97,342	\$188,797		2019	\$7,248,037
Oct	\$496,356	\$169,969	\$326,386		2020	\$7,397,100
Nov	\$575,978	\$215,554	\$360,424		2021	\$3,636,653
Dec	\$311,411	\$122,720	\$188,690		2022	\$3,557,985
Total	\$5,558,899	\$2,000,914	\$3,557,985		CUMULATIVE	\$50,333,924

Peak Days

The GA charges for Class A are calculated based on a percentage of demand during the peak setting period. The peak setting period runs from May to April annually, and the top 5 demand hours are used to calculate each Class A site's demand factor, which is used to calculate the GA charges each month. The GA term begins July 1 annually. Public Works personnel work collaboratively to manage peak events and reduce demand during these periods. The Office of Energy Initiatives (OEI) use tools to predict peaks and notify key frontline staff. Staff, such as operators in Hamilton Water and Corporate Facilities may shift processes to off peak times and/or minimize usage during a potential peak event.

¹⁷ ICI Program = Industrial Conservation Initiative by IESO: <https://ieso.ca/en/Sector-Participants/Settlements/Global-Adjustment-Class-A-Eligibility>

¹⁸ Tim Horton's Field added effective July 1, 2022.

Figure A-29: Top 10 Ontario Verified Peak Demand Days (May 1, 2022-April 30, 2023)¹⁹

Rank	Date	Hour Ending	ICI Ontario Demand (MW)	Coincident Adjusted AQEW (MWh)	Status (Initial, Prelim, Final)
1	19-Jul-22	18	22,607	22,127	Final
2	22-Jun-22	17	21,954	21,340	Final
3	29-Aug-22	17	21,871	21,170	Final
4	20-Jul-22	16	21,850	21,394	Final
5	07-Aug-22	17	21,778	21,073	Final
6	06-Aug-22	18	21,761	21,153	Final
7	08-Aug-22	15	21,560	20,901	Final
8	16-Jun-22	17	21,500	20,778	Final
9	23-Jul-22	17	21,423	20,691	Final
10	03-Feb-23	19	21,388	20,711	Final

Fuels

The following chart breaks down the fuel usage by user group category. For further clarification:

- Transit includes Transit Operations, Route Planning and Transit Yard Support;
- Operations includes Waste Management (non-contracted), Landfill, Roads and Support Services; and
- "Other" includes Public Health, Recreation, Tourism, Library, Bi-Law Services, Clerks, Information Services and Fire and EMS.

Figure A-30: 2021 Fuel Usage by User Group

Group	Diesel Litres	Unleaded Litres	CNG DLE	Total (DLE)
Energy, Fleet & Facilities	9,304	82,407	-	91,711
Engineering Services	-	33,318	-	33,318
Environmental Services	340,588	352,507	-	693,094
Waste Management	626,448	36,621	-	663,069
Hamilton Water	125,395	219,882	-	345,277
Operations	999,265	497,140	-	1,496,405
Transportation	85,761	32,356	-	118,117
Other	335,035	1,235,826	-	1,570,861
Transit	5,142,308	51,705	6,891,128	12,085,140
Totals	7,664,103	2,541,761	6,891,128	17,096,992

¹⁹ Source Data: <https://ieso.ca/en/Sector-Participants/Settlements/Peak-Tracker>

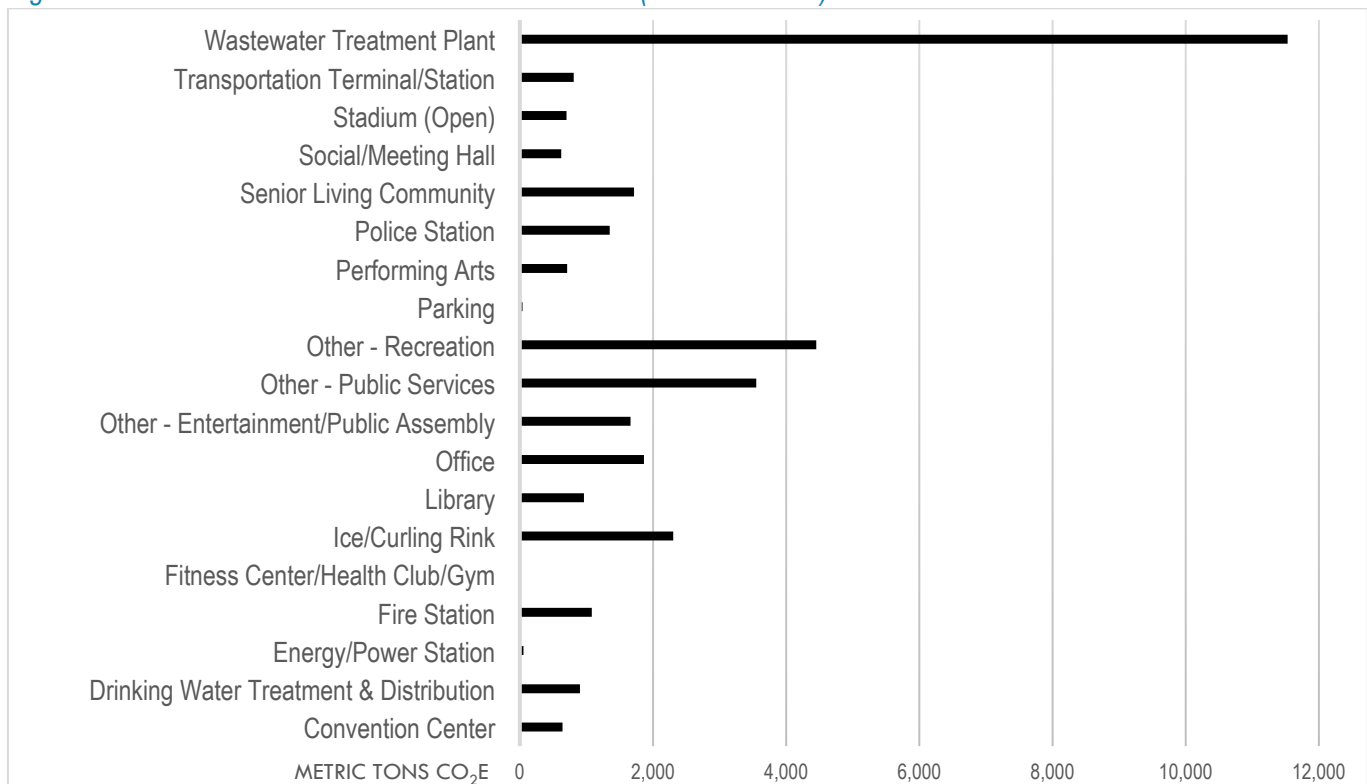
Broader Public Sector Reporting (BPS)

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

The latest submission, July 2023 was for the calendar year 2021. According to the reporting formula City-owned corporate facilities (building assets only) were responsible for emitting 34,965.2 metric tonnes of CO₂e. The categories for this reporting requirement are pre-set and do vary from the City's internal reporting and are limited to buildings only. However, they do continue to represent corporately-owned assets. The report format was changed in 2021, and some of the reporting categories have changed from prior submissions. In addition to reporting on an annual basis, the City is also required to submit a five-year Conservation and Demand Management (CDM) Plan, the latest of which was submitted in July 2019.

Both the annual data submission and the CDM Plan are found on the City website: <https://www.hamilton.ca/office-energy-initiatives>.

Figure A-31: 2021 GHG Emissions Results Submitted (O.REG 507/18)²⁰



²⁰ Broader Public Sector Report is pre-templated using Portfolio Manager (new in 2023) platform where specific data is required to be reported as per provincial O.Reg 507/18. Next submission is due in 2024.

GLOSSARY

COMMON ACRONYMS THROUGHOUT THE REPORT

BPS = Broader Public Sector

CAFE = Corporate Average Fuel Economy

CDD = Cooling Degree Days

CDM – Conservation and Demand Management

CEP = Corporate Energy Policy

CNG = Compressed Natural Gas

CO₂ = Carbon Dioxide

CO₂e = Carbon Dioxide equivalent

DLE = Diesel Litre Equivalent

ekWh = equivalent kilowatt hours

GA = Global Adjustment

GHG = Greenhouse Gas

GJ = Gigajoule

HDD = Heating Degree Days

HOEP = Hourly Ontario Electricity Price

HRPI = Hamilton Renewable Power Inc.

ICI = Industrial Conservation Initiative

IESO = Independent Electricity System Operator

KPI = Key Performance Indicator

kW = Kilowatt

kWh = Kilowatt-hour

LED = Light Emitting Diode

m³ = Cubic Metres

OEB = Ontario Energy Board

tCO₂e = Tonnes Carbon Dioxide equivalent

DEFINITIONS: COMMON TERMS USED THROUGHOUT THE REPORT

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

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

Corporate Energy & Sustainability Policy is the revised and renamed corporate policy (previously the Corporate Energy Policy) governing energy-related decisions for corporately run assets.

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

Demand Reduction referenced in the report is action taken to reduce electrical demand during forecasted provincial peak events (high demand period) for optimizing Class A customers.

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

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

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

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.

Net Zero means achieving overall, zero greenhouse gas emissions by balancing any emissions from energy use with carbon removal via a combination of reducing usage, changing to low or zero energy sources (i.e. renewable energy sources) changing processes and carbon offsetting.


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

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.

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



INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	September 18, 2023
SUBJECT/REPORT NO:	Accessible Transportation Services Quarterly Performance Report (PW22079(d)) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Michelle Martin (905) 546-2424 Ext. 2765
SUBMITTED BY:	Maureen Cosyn Heath Director, Transit Public Works Department
SIGNATURE:	

COUNCIL DIRECTION

Public Works Committee, at its meeting of April 22, 2022, approved the following: “That staff be directed to report back to the Public Works Committee and the Advisory Committee for Persons with Disabilities on a quarterly basis respecting Accessible Transportation Services (ATS).” ([PW Report 22-006](#), Item 3 ([PW21055\(a\)](#))).

INFORMATION

In 1998, an Ontario Human Rights Code complaint was filed, and the subsequent settlement established, in part, that the City of Hamilton report on service-specific requirements: notably, a trip denial rate goal of 5%, an on-time performance goal of 95% or greater for DARTS trips, and an annual report to the City’s Advisory Committee for Persons with Disabilities on: trip requests, trip denials, passenger refusals of trips, cancellations, no shows, missed trips, trips provided, complaints and on-time performance.

Accessible Transportation Services has presented performance indicators from 2019 up to Q2 2022 as described in [PW22079](#). Performance indicators year to date Q3 2022 were presented as described in [PW22079\(a\)](#), and Q4 2022 performance indicators were presented as described in [PW22079\(b\)](#). Q1 2023 indicators were presented as described in [PW22079\(c\)](#). Q2 2023 indicators were presented to the Advisory Committee for Persons with Disabilities meeting 23-008, [Item 8.2](#).

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

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

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

**SUBJECT: Accessible Transportation Services Performance Report
(PW22079(d)) (City Wide) – Page 2 of 3**

From the beginning to the end of 2022, there was an overall decrease in on-time performance of the contractor for specialized transit, DARTS, from 99.6% to 98.3%. The year-to-date trend as of Q2 2023 is 98%. Though still within the 95% guideline established by the 2004 Ontario Human Rights Commission settlement cited above, it still includes 2,656 late trips delivered in Q2 of 2023. This is an improvement over Q1; however, this is still higher than the number of late trips delivered in any quarter in 2022. The total number of late trips year to date for 2023 is 7,382.

Late trips on DARTS continue to drive increased complaint rates: 43% of all complaints received against DARTS year to date Q2 2023 were due to late trips. Complaints received in Q2 2023 resulted in a count of 8.4 total complaints per thousand DARTS trips: slightly decreased from Q1 2023, but much higher than the overall 2022 rate of 4.5 complaints per thousand DARTS trips. The industry standard is 1.0 complaints/1000 trips, and the 2016 Canadian Urban Transit Association average was 2.1 complaints/1000 trips for large systems such as Hamilton (Canadian Urban Transit Association Specialized Transit Services Industry Practices Review, 2016).

At the request of the Advisory Committee for Persons with Disabilities when the 2023 Q1 totals were presented to them, complaints per thousand trips have been broken down not only according to provider in the body of the report attached as Appendix "A" to Report PW22079(d), but also according to subcategory in an appendix on page 13. DARTS has the highest rate of complaints; they are solely responsible for reservations and scheduling, and these categories capture most of the late trip complaints.

Complaints of being on hold or unable to connect accounted for about 9% of all DARTS complaints received up to end of Q2 2023. Call centre statistics provided by DARTS show that call centre service levels are at roughly 50% as of the end of June; that is, only half of calls received are transferred within five minutes.

The Q2 2023 trip denial rate for DARTS trips showed some improvement at 2.7%, within the 5% benchmark set in the 2004 Ontario Human Rights Commission settlement, but higher than the final 2022 rate of 1.7%. Poor on-time performance can also appear in trip denial rates: a trip that is missed and then rebooked due to a projected late arrival is counted as a denied trip. The 2016 Canadian Urban Transit Association average is 1.98% for large systems such as Hamilton, while the industry best practice is 0% (Canadian Urban Transit Association Specialized Transit Services Industry Practices Review, 2016).

While Q3 2023 numbers will not be available until after the end of September, preliminary numbers for July 2023 show that DARTS on-time performance still sits at around 98% and the July denial rate has decreased to closer to 2%. July numbers will

**SUBJECT: Accessible Transportation Services Performance Report
(PW22079(d)) (City Wide) – Page 3 of 3**

be included in the 2023 Q3 report that will go to the Advisory Committee for Persons with Disabilities early in Q4.

The information presented meets the terms of the Ontario Human Rights Commission settlement and exceeds the frequency requirements.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW22079(d) – Advisory Committee for Persons with Disabilities
Meeting 23-008 8.2 – Accessible Transportation
Services Performance Report Q2 2023

City of Hamilton
Accessible Transportation Services Performance Review
Q2 2023

Michelle Martin
Manager, Accessible Transportation Services
Transit Division
Public Works Department
August 8, 2023

This information report provides a summary of key statistical data and performance indicators for Q2 of 2023 (April to June). The City is obligated to provide statistical reports to the Advisory Committee for Persons with Disabilities (ACPD) to meet the terms of the City’s 2004 settlement with the Ontario Human Rights Commission (OHRC) and complainants under the Code.

The report reflects the performance of specialized transportation offered by HSR Accessible Transportation Services (ATS) through its contractor for services, Disabled and Aged Regional Transportation System (DARTS) and their subcontractors, and through the ATS Taxi Scrip program. The data was obtained from DARTS performance report records, ATS contact reports, and ATS Taxi Scrip program data.

TRIPS REQUESTED AND PROVIDED

Table 1: System Requested and Delivered Passenger Q2 2023

DEMAND	Q1 2023	Q2 2023	YTD 2023
DARTS: Number of Total Trips Requested	192,077	195,723	387,800
DARTS: Number of Total Trips Delivered	125,547	134,405	259,952
TAXI SCRIP: Number of Total Trips Delivered	8,233	7,965	16,198
ATS: Number of Total Trips Requested, All Modes	200,310	203,688	403,998
ATS: Number of Total Trips Delivered, All Modes	133,780	142,370	276,150
ATS % Of Total Trips Delivered vs. Requested, All Modes	67%	70%	68%

Table 2: System Demand by Mode: DARTS vs. Taxi Scrip

DEMAND BY MODE	Q1 2023 %	Q2 2023%	YTD 2023
DARTS	96%	96%	96%
TAXI SCRIP	4%	4%	4%
ATS: All Modes	100%	100%	100%

In Q2 2023, ATS delivered a total of 142,370 trips through both DARTS and the Taxi Scrip program.

Demand for specialized trips on DARTS continues to be the main driver of trips requested and delivered. Taxi Scrip continues to account for just 4% of system trips requested, and 96% of trips requested are for DARTS to date in 2023 (Table 2, above). The total number of requested trips includes client cancellations and no shows. Note: ATS increased the Taxi Scrip program discount from 40% to 60%, effective May 2023 and continuing to August 2023. This has not resulted in an

increase in the number of trips taken that are paid for with Taxi Scrip coupons. The percentage of trips taken through the Taxi Scrip program is lower than 2022, when it was approximately 6%.

For Q2 of 2023, DARTS completed trip counts are at approximately 63% of 2019 numbers for the same period (pre-COVID), and at approximately 92% of budgeted service up to end of Q2.

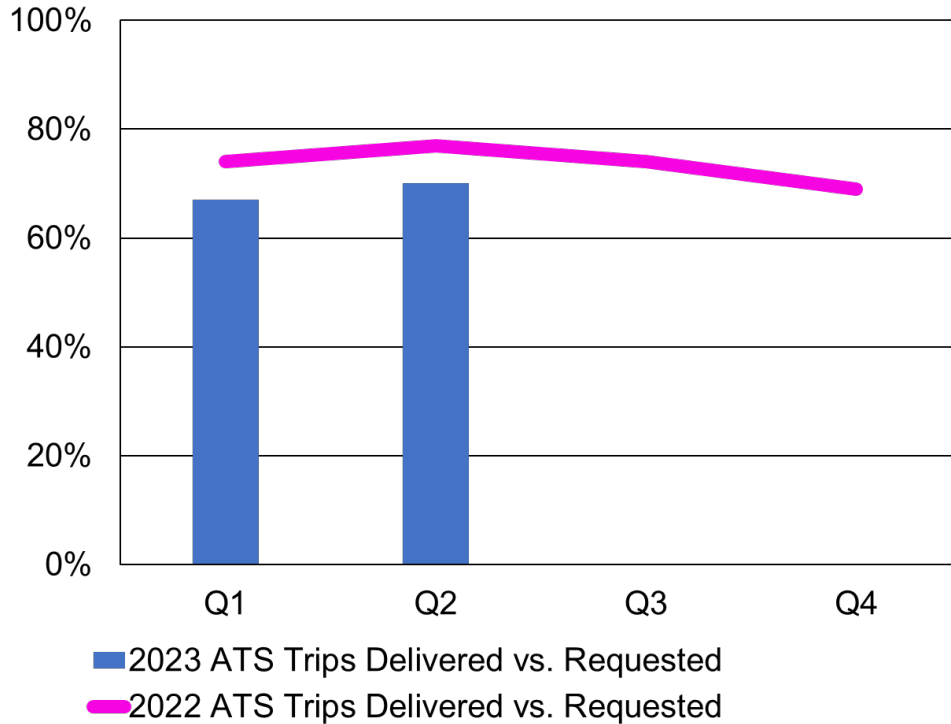


Figure 1: Demand: Count of ATS Trips Delivered versus Requested, All Modes

Alternate text for Figure 1: The graph in Figure 1 (above) compares total ATS trips requested to total number of ATS trips delivered for both DARTS and Taxi Scrip (i.e., all modes). The blue vertical columns show the percentage of trips provided out of the total number of trips requested so far in 2023. The pink line graph above the column shows the trend across all of 2022. So far in 2023, the percentage of requested trips delivered is lower than any quarter in 2022. The total number of requested trips also includes trips booked but not taken, i.e., cancelled trips and passenger no show trips (see also Table 1, above).

RATE OF DENIED SYSTEM TRIPS

Table 3: Rate of Denied Trips: ATS All Modes

Rate of Denied Trips: ATS All Modes	Q1 2023	Q2 2023	YTD 2023
ATS Total Number of Trips Requested	200,310	203,688	403,998
ATS Total Number of Trips Denied	8,754	5,305	14,509
% of Trips Denied	4.4%	2.6%	3.5%

System trip denial rates remain below the 5% goal established by the City’s 2004 settlement with the OHRC, which includes Taxi Scrip trips for the purpose of calculating the trip denial rate. The industry best practice is 0% (Canadian Urban Transit Association (CUTA) Specialized Transit Services Industry Practices Review, 2016). Table 3 (above) shows that the while system denial rate remains within the OHRC standard and has decreased from Q1, the rate year to date is still almost 2% higher than overall denial rate for 2022 and is driven by increased DARTS trip denials by (see Table 4, below).

SPECIALIZED TRANSPORTATION TRIP DISPOSITION

Table 4: Contractor (DARTS) Trip Dispositions

Contractor Trip Dispositions	Q1 2023	Q2 2023	YTD 2023
Total Trips Requested	192,077	195,723	387,800
Total Trips Provided	125,547	134,405	259,952
Total Trips Denied	8,754	5,305	14,059
% of Total Trips Denied	4.6%	2.7%	3.6%

Contractor Denied Trip

A denied trip by the contractor occurs when the client’s request, made within the allowable booking windows, cannot be agreed to within one hour of the requested date and time of travel, or an acceptable alternative cannot be found (see Appendix 1, below). On-time performance impacts trip denial rates: a trip that is missed and then rebooked due to a projected late arrival is counted as a denied trip.

Contractor Call Centre

Table 5: Contractor (DARTS) Call Centre Queue Productivity

Queue Productivity	Q1 2023	Q2 2023	YTD 2023
Inbound Calls	111,404	111,504	222,908
Calls Handled by Agents	76,284	83,290	159,574
Calls Abandoned by Clients	35,120	28,214	63,334
Transfer Rate	68.5%	74.7%	71.6%
Abandoned Rate	31.5%	25.3%	28.4%
Abandoned > 30 Seconds	30,230	23,677	53,907
Abandoned > 30 Seconds Rate	27.1%	21.2%	24.2%
Service Level	48.94%	52.21%	50.6%
Minimum Wait Time	00:00:00	00:00:00	00:00:00
Maximum Wait Time	04:50:18	04:18:00	04:34:09
Average Wait Time	00:07:08	00:06:40	00:06:54
Average Abandoned Wait Time	00:04:05	00:03:36	00:03:51

In response to ACPD feedback following the final 2022 ATS Performance Report, ATS requested DARTS provide call centre data (Table 5, above). The concern expressed by ACPD members was specifically around calls abandoned by clients who are attempting to book trips, which would not be captured in the trip denial rate in Table 3. The service level, which is calculated using the number of calls that are abandoned after the acceptable wait time of five minutes, is at about 50%. It should be

noted that the above call centre data also indicates some clients may be having difficulty calling in to cancel trips in a timely manner (see Table 6, below). Call Centre terms are defined in Appendix 1 to this report.

Table 6: Client Trip Disposition - DARTS

Client Trip Disposition	Q1 2023	Q2 2023	YTD 2023
Total Trips Cancelled On Time	27,257	26,583	53,840
% of Total Trips Cancelled on Time	14.2%	13.6%	13.9%
Total Trips Cancelled Late	24,481	22,937	47,418
% of Total Trips Cancelled Late	12.7%	11.7%	12.2%
Total No Show/Cancelled at Door	5,900	6,397	12,297
% of Total No Show/Cancelled at Door	3.1%	3.3%	3.2%
Total Trips Refused	138	96	234
% of Total Trips Refused	0.1%	0.05%	0.1%

Client Trip Cancelled On Time

A trip cancelled on time has been cancelled by the client by 4:30 PM of the day prior to service. The industry best practice is an on-time cancellation rate of between 5-10% (CUTA Specialized Transit Services Industry Practices Review, 2016). Trips that are cancelled on time provide the opportunity to accommodate any outstanding trip requests or wait list trips in a timely manner.

Table 6 (above) on-time cancellations sit at 13.6% of trips requested on DARTS at the end of Q2 2023. The average on-time cancellation reported by CUTA in 2016 is 20.76% for large systems (agencies that serve a population higher than 150,000) (CUTA Specialized Transit Services Industry Practices Review, 2016), while the industry best practice is an on-time cancellation rate of no more than 10%.

Client Trip Cancelled Late

A late cancellation is one that is made after 4:30 p.m. of the day prior to service, and prior to vehicle arrival within the pickup window and/or within thirty minutes after the negotiated pickup time. Late cancellations rarely provide opportunity to accommodate any outstanding trip requests or wait list trips in a timely manner. Table 6 shows the late cancellation rate currently sits at 11.7% as of the end of Q2 2023. The CUTA Specialized Transit Services Industry Practices Review does not provide a statistic for late cancellations.

Client No-Show/ Cancelled at Door

A “no show” trip occurs when a client books a trip, does not cancel ahead of time, and is not available at the time that the vehicle arrives within the pickup window and/or within thirty minutes after the negotiated pickup time. This includes any occurrence of trips “cancelled at door”, where the client refuses a trip at the door that is within the pickup window and/ or within thirty minutes after the negotiated pickup time. No shows leave no opportunity to accommodate any outstanding trip request or wait list trips. Table 6 shows the no-show rate sits at 3.2% of requested DARTS trips year to date Q2 2023. This is down slightly from 3.5% for 2022 and still lower than the 2016 average of 3.68% for larger systems reported by CUTA, but it exceeds the industry best practice of less than 1%. No

shows result in both lost revenue and lost service efficiency (CUTA Specialized Transit Services Industry Practices Review, 2016).

HSR is currently working with the contractor for specialized transit, DARTS, and the software provider, Trapeze, to install an updated service infraction application to track late cancellations and no shows according to the points system outlined in PW21055(a), targeting end of Q3. It should be noted, however, that there are circumstances in which ATS would not apply any penalty for a late cancellation or no show. These include illness or hospitalization, or an investigation result showing that DARTS was in error.

Client Refused Trip

A refused trip occurs when a client does not accept the travel times provided at the time of booking. The refused trip rate continues to be extremely low, at only 0.05% for Q2 of 2023.

DARTS ON-TIME PERFORMANCE

The City’s 2004 settlement with the OHRC defines late trips as those where the contractor or subcontractor Operator does not arrive until 30 minutes or more after the scheduled arrival time and established an on-time performance goal of 95% or greater. The industry standard for on time performance is 95%-99% for large systems (agencies that serve a population higher than 150,000) (CUTA Specialized Transit Services Industry Practices Review, 2016).

In 2022, at 99%, on-time performance was consistently better than the target established in the OHRC settlement agreement and sat at the upper end of the industry benchmark. As shown in Table 7 (below), on time performance has improved since Q1, is still within the 2004 OHRC guideline, but still lower than in 2022, at 97.2% year to date. As noted above, DARTS has reported some reasons to be beyond its control: increased employee absences including Operators, and in Reservations, Maintenance and Dispatch; and DARTS vehicles out of service awaiting parts for repair, due in part to supply chain issues.

Table 7: Contractor (DARTS) On-Time Performance

Service Metrics	Q1 2023	Q2 2023	YTD 2023
Total Trips Provided	125,547	134,405	259,952
Total Number of Late Trips	4,726	2,656	7,382
% of Trips Completed on Time	96.2%	98.0%	97.2%

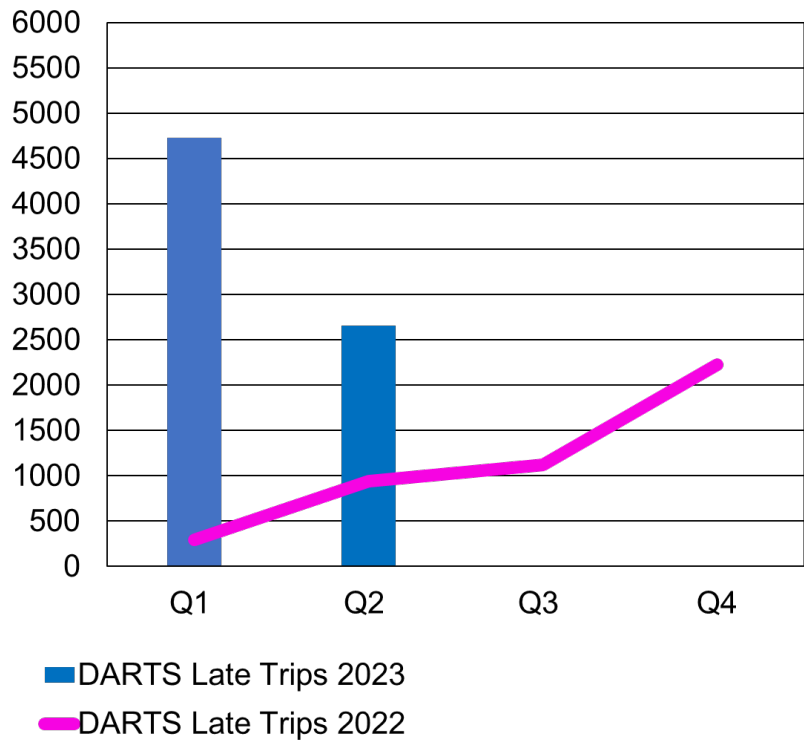


Figure 2: DARTS Late Trips

Alternate text for Figure 2: In Figure 2 (above), the vertical blue columns show the number of late trips to date in 2023, compared to the trend across each quarter in 2022. At 2,656, the number of late trips has decreased from Q1, but is higher than the number reported in Q2 of 2022 (see also Table 7, above).

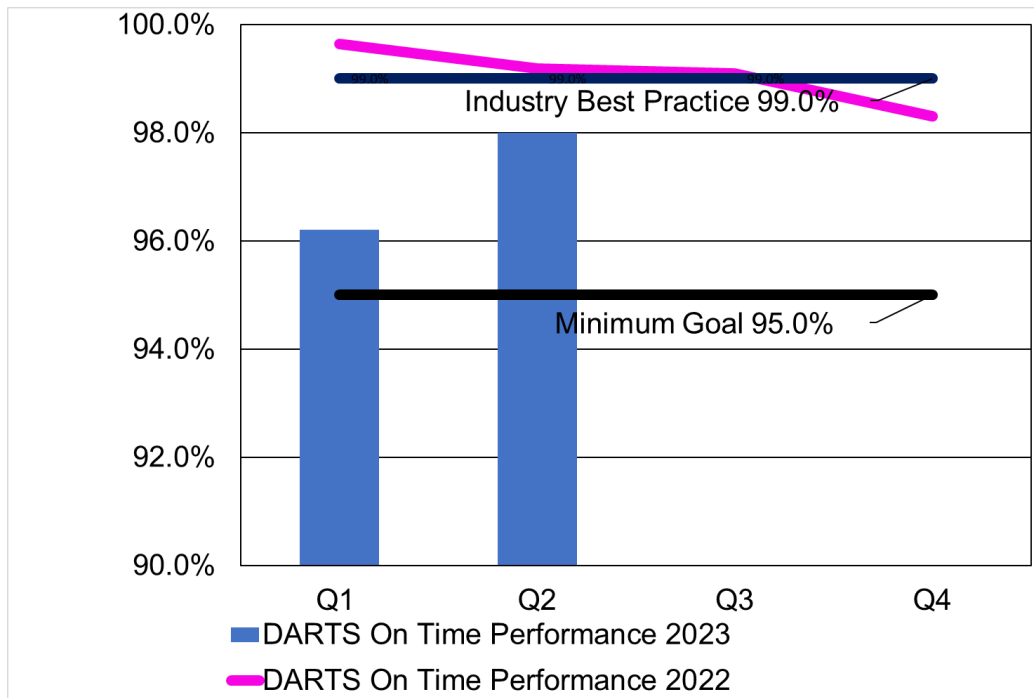


Figure 3: DARTS On Time Performance

Alternate text for Figure 3: Figure 3 (above) graphs DARTS on-time performance. The solid pink line shows the DARTS on-time performance trend across all quarters of 2022. The black line at the 99% level illustrates the industry best practice, and the black line at the 95% level shows the goal as directed by the OHRC in 2004. The pink line shows a decrease in DARTS on-time performance from Q1 to Q4 of 2022 dropping to just over 98%. The vertical blue bars show that at 98%, on-time performance in Q2 of 2023 has improved from Q1: it is 3% above the OHRC goal of 95% but still below the industry standard of 99% (see also Table 7, above).

COMPLAINTS

Table 8: Complaints per Thousand Trips

Year	Complaints per Thousand ATS Trips, All Modes	ATS and DARTS Complaints per Thousand DARTS Trips
2023 Q1	8.8	9.3
2023 Q2	8.0	8.4
YTD 2023	8.4	8.8

Complaints are those customer contacts in which a customer submits an objection to the planning or provision of service. Complaints per thousand are shown in Table 8, above. The first column uses the total number of ATS trips provided (where complaints about Taxi Scrip have been included). In Q2 of 2023, there were 10 Taxi Scrip complaints. The second column uses the total number of DARTS trips provided (not including complaints about Taxi Scrip).

The industry best practice is 1.0 complaints per 1,000 trips. The 2016 CUTA average for large systems is 2.1 complaints per 1,000 trips. The year-to-date 2023 complaint level per thousand DARTS trips, while improved, is almost nine times the industry best practice (1:1,000) and more than four times the 2016 CUTA average (CUTA Specialized Transit Services Industry Practices Review, 2016).

Table 9: Complaint Type

Complaint Type	Q1 2023	Q2 2023	YTD 2023
Service Performance	991	1,005	1,996
Staff Performance	125	132	257
Service Sufficiency	64	150	214
TOTAL	1,180	1,137	2,317

Table 9 (above) breaks down the number of complaints based on three general categories:

- Service performance – categories of complaint where the service as performed did not meet expectations, including but not limited to complaints about pickup/ drop off outside of window; call return wait time; address, date or time errors; missed trip; or scheduled on board time. Most complaints are in this category.
- Staff performance – categories of complaint where staff conduct did not meet expectations, including but not limited to complaints about staff conduct or driving habits. This is the second most frequent category of complaint.

- Service sufficiency – categories of complaint where the service was insufficient to meet reported customer needs, including but not limited to complaints about subscription trips or waiting lists. Taxi Scrip complaints are captured in this category. This is the least frequent category of complaint.

The categories above have been in use internally many years. ATS is currently reviewing their use for better understanding of complaint drivers. In Table 9, total complaints include all complaints received, including complaints that were found “not valid” following investigation.

COMMENDATIONS

Table 10: Commendations per Thousand Trips

Year	Commendations per Thousand ATS Trips, All Modes	ATS and DARTS Commendations per Thousand DARTS Trips
Q1 2023	0.8	0.8
Q2 2023	1.1	1.2
YTD 2023	1.0	1.0

Table 10 (above) shows the number of commendations per thousand ATS system trips (including Taxi Scrip trips) and per thousand DARTS trips. It should be noted ATS does not typically receive commendations about Taxi Scrip service, and none were received to date as of Q2 in 2023.

The industry best practice is 1 commendation per 1,000 trips. The 2016 CUTA average for large system is 0.36 commendations per 1,000 trips. Commendations year to date in Q2 sit just at the industry best practice of 1 commendation per thousand trips, and above the 2016 CUTA average (CUTA Specialized Transit Services Industry Practices Review, 2016).

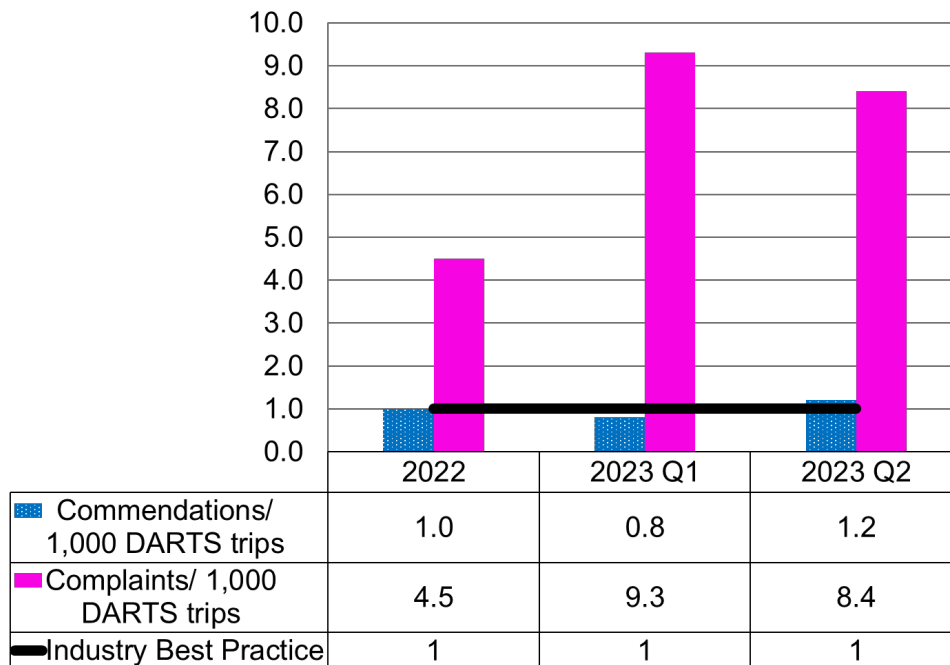


Figure 4: ATS and DARTS Commendations and Complaints per Thousand DARTS Trips.

Alternate text for Figure 4: Figure 4 (above) graphs ATS and DARTS commendations and complaints per thousand trips, comparing the 2022 average with Q1 and Q2 of 2023. The clustered vertical columns compare commendations to complaints. The vertical blue columns with white dots on the left side of each cluster show commendations per thousand trips, and the vertical pink columns on the right side of each cluster show complaints per thousand trips. The solid black line shows the industry best practice of less than one complaint per thousand trips and more than one commendation per thousand trips. The graph shows that the industry standard for complaints was not met for 2022 at 4.5 complaints per thousand trips, and the trend in 2023 continues at almost double the 2022 rate. The industry standard for commendations is currently being met, as of Q2 2023. See also Tables 8 and 10, above.

VALIDATED COMPLAINTS FOR DARTS AND DARTS SUBCONTRACTORS

Table 11: Validated Complaints per Thousand Trips for DARTS and DARTS Subcontractors

Provider	Number of Trips YTD Q2 2023	Number of Validated Complaints YTD Q2 2023	Validated Complaints per Thousand Trips YTD Q2 2023
DARTS	107,287	1,965	18.3
VETS	40,480	36	0.9
Hamilton Rising	68,073	75	1.1
City Marvel	42,852	88	2.1
Hamilton Cab	1,260	4	3.2
TOTAL	259,952	2,168	8.3

DARTS and subcontractor complaints are processed to DARTS for investigation. Where these complaints are deemed unfounded by DARTS, and if ATS concurs with this outcome, these complaints are not included in the count of validated complaints. Removing 37 complaints against ATS Customer Service (including Taxi Scrip complaints) and excluding unfounded complaints leaves an overall count of 8.3 complaints per thousand trips for the contractor and subcontractors, still more than eight times the industry best practice and just under 4 times the CUTA 2016 average (Table 11, above). Complaints against DARTS also include DARTS reservations, dispatch, scheduling, and on-street service. Complaints against subcontractors include on-street service only. See also Appendix 2 of this report, which provides additional detail as requested by members of the Advisory Committee for Persons with Disabilities on May 9, 2023, following presentation of the [Q1 Accessible Transportation Services Performance Report](#).

To date in 2023, 1,260 trips have been delivered by demand taxi, when appropriate for ATS individual client travel needs, to meet the service standard.

APPENDIX 1 Definition of terms

Number of Total ATS Trips Requested, All Modes: the sum of DARTS Requested Trips [plus] Taxi Scrip Trips Delivered.

Taxi Scrip Trips Delivered: the total of all passengers reported by contracted brokers under the Taxi Scrip program.

Number of Total DARTS Trips Requested: the sum of Trips Delivered by DARTS, DARTS subcontractors, and meter taxi [plus] No Show Trips [plus] Cancelled Trips [plus] Trips Denied [plus] Trips Refused.

Trips Denied: a denied trip occurs when

- a casual trip request has been made as much as 7 days in advance up to 4:30 PM on the day prior to the required day of service, and a negotiated time cannot immediately be agreed to within one hour of the requested time or at a time otherwise suitable to the passenger, or cannot subsequently be agreed to through the use of the waiting list
- when a passenger requests a subscription trip which cannot immediately be fulfilled, this form of request is not recorded as a denial of service, however, each instance of a like casual trip request that cannot be accommodated as noted above is recorded as a trip denial
- when the passenger agrees to assignment to the waiting list, a trip denial will still occur if no trip can be found, or if an offered trip is not deemed by the passenger as either suitable or required
- when a passenger requests a trip after 4:30 PM of the day prior to the required day of service, or on the required day of service, and the trip request cannot be accommodated, such request will not be recorded as a denial of service.

Cancelled Trips: a cancelled trip is one that is cancelled by the passenger, or on the passenger's behalf, once a subscription or casual booking has been made

- an advance cancellation is one that is made by 4:30 p.m. of the day prior to service
- a late cancellation is one that is made after 4:30 p.m. of the day prior to service, and prior to vehicle arrival within the pickup window and/or within thirty minutes after the negotiated pick up time
- a program closure cancellation is one that is made for all passengers to a program with advance notification, including program shutdown periods and temporary program venue changes
- a service suspension cancellation is one that is made as a result of a weather or other emergency within the control of ATS and/ or DARTS.

No Show Trips: a no show occurs when a passenger books a trip, does not cancel ahead of time, and is not available at the time that the vehicle arrives within the pickup window and/or within thirty minutes after the negotiated pickup time. This includes any occurrence of trips cancelled at door, where the passenger refuses a trip at the door that is within the pickup window and/or within thirty minutes after the negotiated pickup time.

Number of Total DARTS Trips Delivered: the sum of all trips taken by passengers and their escorts and/or companions delivered by DARTS on DARTS, DARTS subcontractors, or metered taxi.

Late Trips: the sum of all trips that are more than 30 minutes late from that time negotiated with the passenger for the trip, as reported by drivers and as recorded by DARTS from driver manifests.

Complaints: those customer contacts under which a customer submits an objection to the planning or provision of service

Commendations: those customer contacts under which a customer submits praise for the planning or provision of service.

Validated complaint: complaint determined to be substantiated based on investigation by the contractor and ATS review/ agreement.

Rate of Denied Trips: Denied Trips expressed as a percentage of Number of Total ATS Trips Requested, All Modes.

Inbound calls: incoming calls entering call system queue.

Calls Handled by Agents: incoming calls transferred to an agent.

Calls Abandoned by Clients: calls for which the caller hung up.

Transfer Rate: rate of incoming calls transferred to an agent, as a percentage of calls queued.

Abandoned Rate: rate of calls abandoned, as a percentage of calls queued.

Minimum Wait Time: the shortest amount of time before call was transferred to an agent.

Maximum Wait Time: the longest amount of time before a call was transferred to an agent.

Service Level: calculated as [calls transferred within 5 minutes] / ([calls transferred] + [calls abandoned after 5 minutes]) * 100

Rate of Cancelled Trips: Cancelled Trips (by type) expressed as a percentage of Number of Total DARTS Trips Requested.

Rate of No-Show Trips: No Show Trips expressed as a percentage of Number of Total DARTS Trips Requested.

Rate of On-Time Performance: (DARTS Trips Delivered [minus] Late Trips) expressed as a percentage of (Number of Total DARTS Trips Delivered).

Refused Trips: A refused trip occurs when a client does not accept the travel times provided at the time of booking – see Trips Denied, above.

Complaints per 1,000 Trips: complaints per thousand trips (sum of Taxi Scrip Trips Delivered [plus] DARTS Trips Delivered).

Commendations per 1,000 Trips: commendations per thousand trips (sum of Taxi Scrip Trips Delivered [plus] DARTS Trips Delivered).

APPENDIX 2 Validated Complaints YTD Q2 2023: Detail

ATS CUSTOMER SERVICE	37	37
FARES	1	1
MISCELLANEOUS	8	8
POLICIES	2	2
STAFF CONDUCT/SERV	1	1
TAXI SCRIP	25	25
CITY MARVEL	88	88
ACCIDENTS	1	1
DAMAGED PROPERTY	1	1
DRIVING HABITS	20	20
ERROR ADDR/DATE	27	27
INJURED PASSENGER	3	3
NO DOOR TO DOOR	13	13
NOSHOW	5	5
POLICIES	1	1
STAFF CONDUCT/SERV	10	10
TRIP MISSED	4	4
VEHICLE CONDITION	3	3
DARTS DISPATCH	143	143
CANT BOOK SAME DAY	1	1
CR WAIT TIME	3	3
ERROR ADDR/DATE	23	23
MISCELLANEOUS	2	2
ONHOLD/CANT CONNECT	70	70
PU/DO OUTSD WINDOW	3	3
STAFF CONDUCT/SERV	25	25
TIME CHANGE	6	6
TRIP MISSED	9	9
TRIP TRANSFER	1	1
DARTS ON-STREET	114	114
DAMAGED PROPERTY	3	3
DRIVING HABITS	14	14
ERROR ADDR/DATE	25	25
FARES	2	2
INJURED PASSENGER	11	11
NO DOOR TO DOOR	10	10
NOSHOW	7	7
POLICIES	2	2
STAFF CONDUCT/SERV	28	28
TRIP MISSED	10	10
VEHICLE CONDITION	2	2
DARTS RESERVATIONS	236	236
CANT BOOK REQD TIME	42	42
ERROR ADDR/DATE	46	46
FARES	1	1
ONHOLD/CANT CONNECT	132	132
STAFF CONDUCT/SERV	8	8

TRIP NOTIFICATION	7	7
DARTS SCHEDULING	1472	1472
ERROR ADDR/DATE	37	37
NOSHOW	1	1
PU/DO OUTSD WINDOW	937	937
SCHED ON BOARD TIME	114	114
SUBSCRIPTIONS	1	1
TIME CHANGE	3	3
TRIP MISSED	175	175
WAITING LIST	204	204
HAMILTON RISING	75	75
DRIVING HABITS	11	11
ERROR ADDR/DATE	22	22
INJURED PASSENGER	2	2
MISCELLANEOUS	2	2
NO DOOR TO DOOR	4	4
NOSHOW	5	5
POLICIES	2	2
PU/DO OUTSD WINDOW	2	2
STAFF CONDUCT/SERV	15	15
TRIP MISSED	7	7
VEHICLE CONDITION	3	3
TAXI ON-STREET	4	4
ERROR ADDR/DATE	1	1
NO DOOR TO DOOR	2	2
STAFF CONDUCT/SERV	1	1
VETS	36	36
ACCIDENTS	1	1
DRIVING HABITS	7	7
ERROR ADDR/DATE	5	5
FARES	2	2
NO DOOR TO DOOR	5	5
NOSHOW	1	1
POLICIES	1	1
PU/DO OUTSD WINDOW	1	1
STAFF CONDUCT/SERV	12	12
TRIP MISSED	1	1
Grand Total	2205	2205



INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	September 18, 2023
SUBJECT/REPORT NO:	In-Service Road Safety Review of the Upper Paradise Road between Stone Church Road and Rymal Road Corridor (PW23059) (Ward 14) (Outstanding Business List Item)
WARD(S) AFFECTED:	Ward 14
PREPARED BY:	Chris Day (905) 546-2424 Ext. 2433 Giancarlo Perez Miller (905) 546-2424 Ext. 2067
SUBMITTED BY:	Carolyn Ryall Director, Transportation Public Works Department
SIGNATURE:	

COUNCIL DIRECTION

City Council at its meeting on February 8, 2023, provided the following direction via motion:

That upon the conclusion of the Upper Paradise Road in-service road safety review that the Transportation Operations & Maintenance Division, known today as the Transportation Division, report back to the Public Works Committee with the review findings inclusive of costs and a proposed implementation plan in Q3 of 2023.

INFORMATION

On January 11, 2023, a student pedestrian from St. Thomas More Catholic Secondary School lost their life in a motor vehicle collision on Upper Paradise Road near the intersection of Stone Church Road West. On December 22, 2017, two pedestrians from the local neighborhood were struck by a motor vehicle resulting in a resident losing their life and their partner having sustained serious injuries on Upper Paradise near the intersection of Stone Church Road West.

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

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

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

SUBJECT: In-Service Road Safety Review of the Upper Paradise Road between Stone Church Road and Rymal Road Corridor (PW23059) (Ward 14) - Page 2 of 3

The City of Hamilton approved the Vision Zero Action Plan in February 2019, which is a comprehensive road safety plan to eliminate collisions that involve serious injuries or fatalities. As part of this program, roadway safety improvements should be considered particularly in areas where there is a high volume of vulnerable road users.

Roster consulting services from True North Safety Group was acquired to undertake an In-Service Road Safety Review along Upper Paradise Road between Stone Church Road to Rymal Road, refer to Appendix “D” to Report PW23059, to identify roadway safety measures to improve the overall safety for all modes of travel.

True North Safety Group reviewed traffic operations and collision statistics along this corridor as well conducting comprehensive field investigations to assist in determining potential roadway safety measures that could be implemented to enhance traffic operation and safety. A detailed summary of existing conditions is included in Appendix “B” to Report PW23059.

The True North Safety Group Summary of Findings and Recommendations within the In-Service Road Safety Review is attached to Report PW23059 as Appendix “A”. The identified measures are categorized into three categories: Short-term actions, medium-term and long-term recommendations. The status, action, implementation timing, and financing details of all recommendations are outlined in Appendix “C” of Report PW23059.

Short-term actions include relatively inexpensive measures that can be implemented in the short-term without major physical changes to the layout of the intersections and road segments, targeted to be completed between 0-3 years. Medium-term recommendations include countermeasures that involve minor physical changes to the layout of intersections and road segments, targeted to be completed between 3 to 5 years. Long-term recommendations are more costly and significant in scope which require long-term planning, targeted for completion in 5+ years.

The short-term actions for the Corridor have either already been completed or are scheduled to be completed by quarter 4 of 2023. Short-term actions have/will be funded through existing capital and operating budgets.

The Medium-term recommendations regarding the St. Thomas More Catholic Secondary School will be provided to the Hamilton District Catholic School Board member on the Hamilton Strategic Road Safety Committee for review and action, if deemed necessary.

The remaining Medium- and Long-term recommendations are programmed to be reviewed as part of future reconstruction and has been deferred to the capital

SUBJECT: In-Service Road Safety Review of the Upper Paradise Road between Stone Church Road and Rymal Road Corridor (PW23059) (Ward 14) - Page 3 of 3

reconstruction program for scoping and programming. A timeframe for these changes should be planned to be completed within 5 years, and as approved by Committee and Council through the annual capital budget process.

Combined, the safety enhancements identified in Report PW23059 will serve to better protect all road users and are in alignment with the City of Hamilton's Vision Zero principles. The results of which are monitored through the annual review of the collision history for intersections and road segments, as summarized in Annual Collision Reports.

While there are immediate benefits to implementing safety enhancements it will take a number of years after the implementation to statistically gauge the effect as meaningful analysis takes into account a minimum of three to five years of collision history to determine reliable intersection and road segment collision frequency.

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" to Report PW23059 – In-Service Roadway Safety Review Summary of Findings & Recommendations

Appendix "B" to Report PW23059 – Upper Paradise Road between Stone Church Road and Rymal Road: Existing Conditions Summary

Appendix "C" to Report PW23059 – Upper Paradise Road between Stone Church Road and Rymal Road: Implementation Summary

Appendix "D" to Report PW23059 – Upper Paradise Road In-Service Roadway Safety Audit Location Map

5.0 SUMMARY OF RECOMMENDATIONS

This section provides a summary of recommendations resulting from TNS Group's review of the Upper Paradise Road corridor, between Stone Church Road and Rymal Road. The recommendations are grouped into the following three categories:

- ▶ **Short-term actions** include relatively inexpensive measures that could be implemented in the short-term without major physical changes to the layout of the road.
- ▶ **Medium-term recommendations** include countermeasures that involve minor physical changes to the layout of the road.
- ▶ **Long-term recommendations** are more costly, which require long-term planning, design, and property acquisition.

Appendix C includes a concept plan for the study corridor with some of the more substantial recommendations.

Short-term Actions

- ▶ Repair sidewalk discontinuities greater than 2 cm, per Minimum Maintenance Standards, as well as uneven sidewalk surfaces and drop-offs adjacent to sidewalks at multiple locations;
- ▶ Consider realigning the border between concrete and asphalt surfaces, and installing a STOP sign, stop bar and yellow centre line at the trail exit at the southeast corner of the Richview Drive intersection.
- ▶ Repair pavement depression on the northbound lane, south of Amore Drive.
- ▶ Consider implementing fully protected left-turn phasing at the Stone Church Road (especially for the northbound and southbound approaches) and Rymal Road (eastbound and westbound approaches) intersections (however, post-COVID volumes should be monitored to ensure operational efficiency can be maintained during peak hours).
- ▶ Consider implementing right-turn-on-red prohibition on the westbound approach at the Rymal Road intersection.

Medium-term Recommendations

- ▶ Consider engaging St. Thomas More Catholic Secondary School to develop an education campaign to promote:
 - Awareness of the risks of crossing the street outside of controlled crossing locations, discouraging this behaviour.
 - Increased walking, cycling and transit to reduce the amount of vehicles reaching the school during arrival and dismissal times (staggered bell times could also help reduce congestion).
 - 'Kiss-and-stride' – development of maps of locations within 5- and 10-minute walk times surrounding the school, where parents can drop off students to continue their trip on foot).
 - The use of the school parking lots for pick-up and drop-off.

- ▶ Consider engaging St. Thomas More Catholic Secondary School to undertake an internal circulation study to review current circulation patterns and to explore opportunities to rearrange spaces and designate pick-up and drop-off areas.
- ▶ Install and/or upgrade pedestrian crossings to AODA or related City standards, including tactile walking surface indicators with truncated dome pattern and, at signalized intersections, pushbuttons with audible and tactile indicators.

Long-term Recommendations

- ▶ Consider converting the driveway located approximately 25 metres south of Stone Church Road to “entrance only”.
- ▶ Implement the typical Connector cross section on Upper Paradise Road, per City of Hamilton’s Complete Streets Design Guidelines (26 m ROW – Retrofit Scenario), eliminating the two-way left-turn lane and implementing separated bicycle lanes.
 - Consider also removing the bus layby in front of St. Thomas More Catholic Secondary School.
 - Shift the bicycle lane on the south side of Stone Church Road, east of Upper Paradise Road, closer to the curb, and implement a hatched buffer.
 - Implement On-Street Two-Stage Queue Boxes at the Stone Church Road intersection, as well as bicycle conflict zone markings with green surface adjacent to the westbound right-turn lane (alternatively, consider protected intersection elements such as corner islands).
 - Consider incorporating treatments to mitigate conflicts with pedestrians where they must cross the bicycle lanes to access a transit vehicle (potential treatments include island boarding transit stops and shared cycle track transit stops).
- ▶ Install an Intersection Pedestrian Signal (IPS) at the intersection of Upper Paradise Road and Skyview Drive, with the appropriate illuminance levels and required AODA or related City elements.
 - To ensure consistency throughout the corridor, and due to the proximity to the Rymal Road signalized intersection, consider also upgrading the Level 2 Type B PXO recommended for Upper Paradise Road @ Donnici Drive in the Ward 14 Complete Streets Study to an IPS.
- ▶ Increase illuminance levels at the study area intersections.
- ▶ Consider widening the sidewalk to the south (regrading as needed) to achieve 1.5 m width at the southwest corner of the Rymal Road intersection.
- ▶ Consider resurfacing the corridor, including the Rymal Road and Stone Church Road intersections.
 - Water ponding at intersections / along crosswalks should also be addressed to prevent ice formation / slipping hazards.
- ▶ If feasible, consider implementing positive left-turn lane offsets at least for the northbound and southbound approaches (but preferably for all approaches) at the Stone Church Road intersection, and for the eastbound and westbound approaches at the Rymal Road intersection.
 - Note that positive left-turn lane offsets typically require more space; it is important to balance the needs of all road users, particularly if the implementation of positive offsets results in longer crossing distances for pedestrians.

- ▶ If feasible, consider removing a portion of the retaining wall located at the northeast corner of the Rymal Road intersection and regrading the area behind it to improve visibility between road users.
- ▶ Consider converting the driveway located approximately 35 metres north of Rymal Road to right-in/right-out and constructing a second driveway to the commercial plaza on Sunbeam Drive.

Upper Paradise Road between Stone Church Road and Rymal Road Existing Conditions Summary

Upper Paradise Road between Stone Church Road and Rymal Road runs north-south and is classified as a minor arterial road. It has a three-lane cross-section, with one travel lane per direction and a two-way left-turn lane (TWLTL). The posted speed limit is 50 km/h and school zone signage is provided indicating a speed limit reduction to 40 km/h during school hours.

Within the corridor, there are a total of 8 intersections (3 signalized intersections, 5 stop-controlled intersections). The signalized intersections at Stone Church Road and at Rymal Road are intersections with major arterial roads, while the signal at Richview Drive provides access to a high school (St. Thomas More Catholic Secondary School) to the east, and to a residential neighborhood to the west. Access along the corridor is provided predominantly to single-family detached homes, as well as one commercial plaza near Rymal Road, and two commercial plazas near Stone Church Road.

Recent and Planned Safety Enhancements to Study Area

- Upper Paradise @ Stone Church Road intersection:
 - Installation of a red-light camera for the southbound approach in 2022 (red-light camera signs are provided for all four approaches)
 - Pavement marking modifications, adding on-street parking to the northbound and westbound approaches in 2017
- Upper Paradise Road @ Richview Drive intersection:
 - Conversion from intersection pedestrian signal (IPS) to full traffic signal and upgrading of the crosswalk to ladder-type + accessibility enhancements in 2019
- Upper Paradise @ Rymal Road intersection:
 - Widening and urbanization of the east leg in 2016
 - Installation of a red-light camera scheduled for 2023
- Upper Paradise Road @ side street intersections:
 - Implementation of stop bar and crosswalk markings scheduled for 2023
- Upper Paradise Corridor:
 - Radar speed feedback boards were installed in late 2016
 - Community Safety Zone is scheduled for implementation in 2023
 - Automated Speed Enforcement is scheduled for implementation in 2025
 - Bicycle lanes are currently in the Feasibility Plan stage

Additionally, an area-wide Complete Street study was completed in 2022 for Ward 14. Recommendations resulting from this study and relevant to the study area include:

- Level 2 Type B PXO at the intersection of Upper Paradise Road and Donnici Drive
- Buffered bicycle lanes with lane narrowing
- Crosswalk markings at the intersections of Upper Paradise Road with Sunbeam Drive, Meadowbank Drive and Donnici Drive
- Separated bicycle facilities on Rymal Road, west of Upper Paradise Road (Hamilton's Cycling Master Plan indicates that bike paths are planned on Rymal Road, east of Upper Paradise Road)

The historical collision data

The historical collision data (January 1, 2016, to December 31, 2022) identified the following main patterns in the collision history:

- There is an apparent decreasing trend in total collisions over the year, however fatal and injury collisions appear to be relatively stable around 6 to 7 collisions per year (although 2019 and 2022 presented 4 and 3 collisions, respectively);
- A total of 42 fatal and injury collisions (24%) were recorded during the analysis period. One fatal collision occurred in 2017 at the midblock section between Kordun Street and Stone Church Road. Another fatal pedestrian collision occurred at the same road section shortly after the study period, in early 2023;
- Single Motor Vehicle Other (SMV Other), which includes pedestrian collisions, is the predominant impact type for fatal and injury collisions, with 15 occurrences during the study period. SMV Other is followed by Rear End, with 10 injury collisions, and by Angle, with 9 injury collisions;
- Collisions most often occurred between 1:00 PM and 6:00 PM. Fatal and injury collisions peak between 7:00 AM and 8:00 AM, and between 5:00 PM and 6:00 PM. These patterns coincide with the peak traffic period and aligns with typical peak periods for arterial roads (The two fatal pedestrian collisions occurred close to noon and 3:00 PM);
- A total of 12 pedestrian collisions occurred in the study area, with 5 at the intersection of Stone Church Road and 4 at the intersection of Rymal Road; 7 pedestrian collisions (58%) occurred during non-daylight conditions (dark, dusk or dawn); and
- A total of 5 cyclist collisions occurred in the study area, most during daylight conditions and with no particular patterns.

Upper Paradise Road between Stone Church Road and Rymal Road				
1.1 - Short-term Actions				
Item:	Safety Enhancement:	Action / Status:	Timeline:	Funding:
1.1.1	Repair sidewalk discontinuities greater than 2 cm, per Minimum Maintenance Standards, as well as uneven sidewalk surfaces and drop-offs adjacent to sidewalks at multiple locations	Program to be completed	Q4 2023	Additional funding not required, existing operation budget to be utilized
1.1.2	Consider realigning the border between concrete and asphalt surfaces, and installing a STOP sign, stop bar and yellow centre line at the trail exit at the southeast corner of the Richview Drive intersection	Considered in Upper Paradise Road project scope	2024	Additional funding not required, existing operation/capital budget to be utilized
1.1.3	Repair pavement depression on the northbound lane, south of Amore Drive	Completed		
1.1.4	Consider implementing fully protected left -turn phasing at the Stone Church Road (especially for the northbound and southbound approaches) and Rymal Road (eastbound and westbound approaches) intersections (however, post-COVID volumes should be monitored to ensure operational efficiency can be maintained during peak hours).	Programmed to be reviewed and will be implemented if deemed to be warranted based on the review	Q4 2023	Additional funding not required, existing operation budget to be utilized
1.1.5	Consider implementing right-turn-on-red prohibition on the westbound approach at the Rymal Road intersection	Programmed to be reviewed and will be implemented if deemed to be required based on the review	Q4 2023	Additional funding not required, existing operation budget to be utilized
1.2 - Medium Term Actions				
Item:	Safety Enhancement:	Action / Status:	Timeline:	Funding:
1.2.1	Consider engaging St. Thomas More Catholic Secondary School to develop an education campaign to promote: <ul style="list-style-type: none"> Awareness of the risks of crossing the street outside of controlled crossing locations, discouraging this behaviour. Increased walking, cycling and transit to reduce the amount of vehicles reaching the school during arrival and dismissal times (staggered bell times could also help reduce congestion). 'Kiss-and-stride' – development of maps of locations within 5- and 10-minute walk times surrounding the school, where parents can drop off students to continue their trip on foot). The use of the school parking lots for pick-up and drop-off. 	To be provided to Hamilton-Wentworth District Catholic School Board (HWDCSB) member on the Q4 2023 Hamilton Strategic Roadway Safety Committee meeting for their review and action as needed.	Timing to be determined by HWDCSB	Funding to be determined by HWDCSB
1.2.2	Consider engaging St. Thomas More Catholic Secondary School to undertake an internal circulation study to review current circulation patterns and to explore opportunities to rearrange spaces and designate pick-up and drop-off areas.	To be provided to Hamilton-Wentworth District Catholic School Board (HWDCSB) member on the Q4 2023 Hamilton Strategic Roadway Safety Committee meeting for their review and action as needed.	Timing to be determined by HWDCSB	Funding to be determined by HWDCSB
1.2.3	Install and/or upgrade pedestrian crossings to AODA or related City standards, including tactile walking surface indicators with truncated dome pattern and, at signalized intersections, pushbuttons with audible and tactile indicators	Programmed to be reviewed as part of future reconstruction (deferred to capital reconstruction program for scoping and programming in the future)	2026/2027	Pending Project Budget

1.3 - Long-Term Recommendations				
Item:	Safety Enhancement:	Action / Status:	Timeline:	Funding:
1.3.1	Consider converting the driveway located approximately 25 metres south of Stone Church Road to "entrance only".	Programmed to be reviewed as part of future reconstruction	2026/2027	Pending Project Budget
1.3.2	<p>Implement the typical Connector cross section on Upper Paradise Road, per City of Hamilton's Complete Streets Design Guidelines (26 m ROW – Retrofit Scenario), eliminating the two-way left-turn lane and implementing separated bicycle lanes.</p> <ul style="list-style-type: none"> Consider also removing the bus layby in front of St. Thomas More Catholic Secondary School. Shift the bicycle lane on the south side of Stone Church Road, east of Upper Paradise Road, closer to the curb, and implement a hatched buffer. Implement On-Street Two-Stage Queue Boxes at the Stone Church Road intersection, as well as bicycle conflict zone markings with green surface adjacent to the westbound right-turn lane (alternatively, consider protected intersection elements such as corner islands). <p>Consider incorporating treatments to mitigate conflicts with pedestrians where they must cross the bicycle lanes to access a transit vehicle (potential treatments include island boarding transit stops and shared cycle track transit stops).</p>	Programmed to be reviewed as part of future reconstruction (deferred to capital reconstruction program for scoping and programming in the future)	2026/2027	Pending Project Budget
1.3.2	<p>Install an Intersection Pedestrian Signal (IPS) at the intersection of Upper Paradise Road and Skyview Drive, with the appropriate illuminance levels and required AODA or related City elements.</p> <ul style="list-style-type: none"> To ensure consistency throughout the corridor, and due to the proximity to the Rymal Road signalized intersection, consider also upgrading the Level 2 Type B PXO recommended for Upper Paradise Road @ Donnici Drive in the Ward 14 Complete Streets Study to an IPS. 	To be submitted for consideration in the 2024 capital budget process.	2024, pending funding approval.	\$150,000, pending capital funding approval.
1.3.3	Increase illuminance levels at the study area intersections.	To be investigated and upgrades programmed afterwards.	2023/2024	Additional funding not required, existing operation budget to be utilized
1.3.4	Consider widening the sidewalk to the south (regrading as needed) to achieve 1.5 m width at the southwest corner of the Rymal Road intersection	Programmed to be reviewed as part of future reconstruction (deferred to capital reconstruction program for scoping and programming in the future)	2026/2027	Pending Project Budget
1.3.5	<p>Consider resurfacing the corridor, including the Rymal Road and Stone Church Road intersections.</p> <ul style="list-style-type: none"> Water ponding at intersections / along crosswalks should also be addressed to prevent ice formation / slipping hazards. 	<p>Resurfacing programmed to be reviewed as part of future reconstruction (deferred to capital reconstruction program for scoping and programming in the future)</p> <p>Water ponding to be examined and corrected through roadway maintenance program.</p>	2026/2027	Pending Project Budget
1.3.6	<p>If feasible, consider implementing positive left-turn lane offsets at least for the northbound and southbound approaches (but preferably for all approaches) at the Stone Church Road intersection, and for the eastbound and westbound approaches at the Rymal Road intersection.</p> <ul style="list-style-type: none"> Note that positive left-turn lane offsets typically require more space; it is important to balance the needs of all road users, particularly if the implementation of positive offsets results in longer crossing distances for pedestrians 	Programmed to be reviewed as part of future reconstruction (deferred to capital reconstruction program for scoping and programming in the future)	2026/2027	Pending Project Budget

1.3.7	If feasible, consider removing a portion of the retaining wall located at the northeast corner of the Rymal Road intersection and regarding the area behind it to improve visibility between road users	Programmed to be reviewed as part roadway maintenance program	2023/2024	Additional funding not required, existing operation budget to be utilized
1.3.8	Consider converting the driveway located approximately 35 metres north of Rymal Road to right-in/right-out and constructing a second driveway to the commercial plaza on Sunbeam Drive.	Programmed to be reviewed as part of future reconstruction	2026/2027	Pending Project Budget

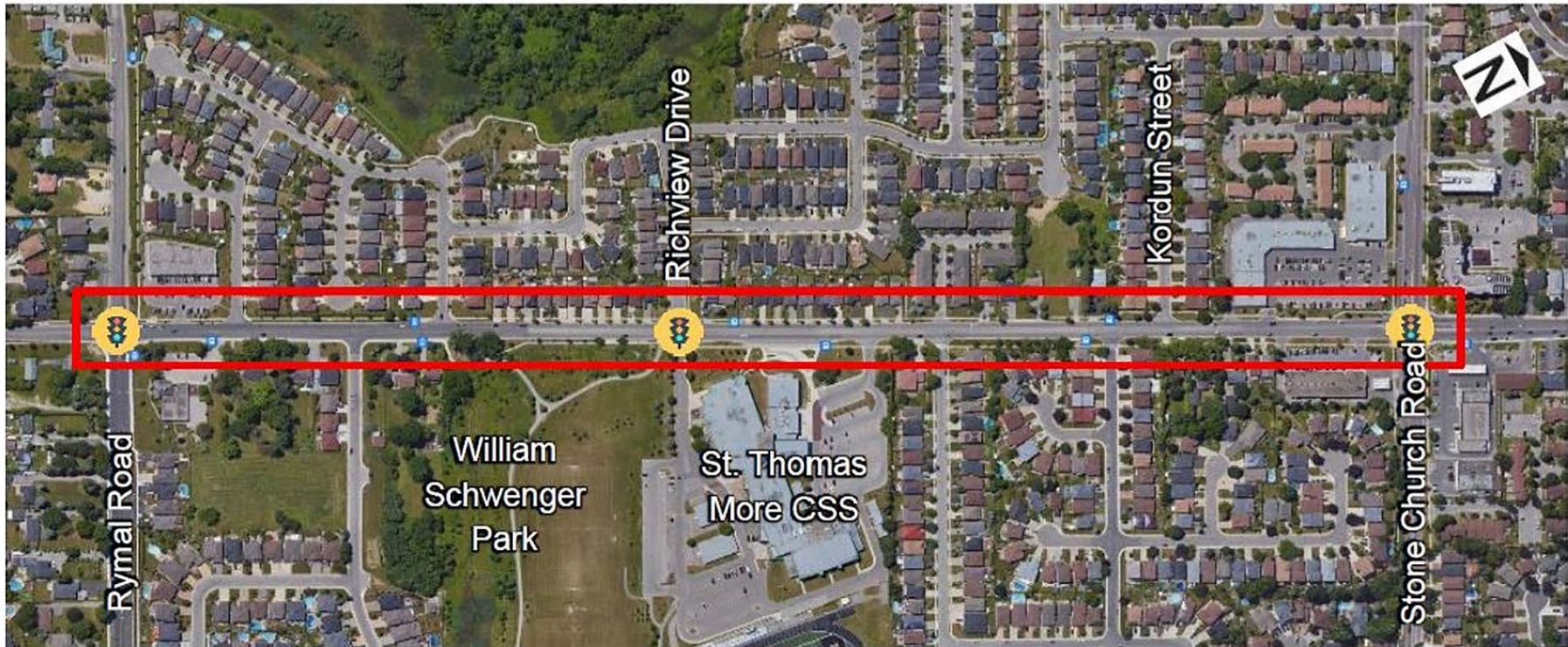


Figure 1: Upper Paradise Road Study Area



INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	September 18, 2023
SUBJECT/REPORT NO:	Accessible Transportation Services Contractor (DARTS) Fleet Budget (PW23060) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Michelle Martin (905) 546-2424 Ext. 2765
SUBMITTED BY:	Maureen Cosyn Heath Director, Transit Public Works Department
SIGNATURE:	

COUNCIL DIRECTION

At its meeting on March 23, 2017, the General Issues Committee approved staff's recommendations concerning the City's Master Operational Agreement (MOA) with the Disabled and Aged Regional Transit System (DARTS) in DARTS Report PW17019 (Item 8.2), as amended, including:

“(c) That the MOA be amended to reflect the following...

(ii) DARTS, instead of the City, will be fully responsible for the acquisition of all new vehicles, equipment and capital assets, including the maintenance for same...”

INFORMATION

DARTS is a third-party non-profit organization. DARTS has been the contractor providing door-to-door, shared-ride accessible transit service in Hamilton since 1976.

The Accessibility for Ontarians with Disabilities Act obligates the City of Hamilton to provide accessible transit to eligible people with disabilities. In 2022, 7,124 Accessible Transportation Services clients took 454,617 trips to school, to work, to complete

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

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

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

SUBJECT: Accessible Transportation Services Contractor (DARTS) Fleet Budget (PW23060) (City Wide) – Page 2 of 3

necessary errands, or to participate in leisure activities. They rely on a safe, predictable, and reliable accessible transit service.

The service DARTS provides was originally funded by both the Province and the Region of Hamilton Wentworth. In the 1990's, it was funded by the Region alone. Since the Region became the City of Hamilton in 2001, DARTS has continued as the only accessible transit service provider funded from the Transit Division's operating budget.

DARTS is fully responsible for acquiring and maintaining all of the vehicles necessary for the provision of its services. Fleet plans, including plans to replace vehicles, are generally determined as part of regular budget discussion between DARTS and Transit staff. The current DARTS fleet is made up entirely of vehicles owned or leased by DARTS.

The Accessible Transportation Services section of the Transit Division regularly meets with DARTS staff to review fleet performance, fleet requirements and budget matters. Recently, the Executive Director of DARTS outlined to Accessible Transportation Services staff a business case for replacing seven vehicles (Toyota Sienna vans) coming off lease at the end of 2023 with a different vehicle style (Promaster vans).

DARTS subsequently decided to sign five-year leases for seven Promaster vans, which were immediately available for acquisition, rather than risk losing the vans to another purchaser. By doing so, DARTS avoided the potential of increased lease costs that could have resulted from deferring the decision to switch vehicle types. Accessible Promaster vans need to be ordered in advance, given both supply chain issues and the time needed to outfit such vans for revenue service. Accessible Transportation Services informed DARTS that it was not able to communicate a Council approval for the decision. The deadline DARTS received from their vendor did not align with City reporting timelines.

While DARTS is responsible for its fleet, the Accessible Transportation Services section within the Transit Division, Public Works is responsible for ensuring the contractor fleet has capacity for client trips. The current service shows signs of capacity limits as noted below:

- from Q1 of 2022 to Q1 2023, there has been an overall decrease in DARTS on-time performance from 99.6% to 96.2%, and an overall increase in rates of passenger trip denials from 0.7% to 4.6% (Accessible Transportation Services Performance Report PW22079(b) and Accessible Transportation Services Performance Report PW22079(c)); and
- in March 2023, 20 vehicles from one of DARTS' subcontractors were pulled from the schedule for approximately one week due to repeated customer service

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

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

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

SUBJECT: Accessible Transportation Services Contractor (DARTS) Fleet Budget (PW23060) (City Wide) – Page 3 of 3

issues that jeopardized passenger safety. As a result, overall capacity of the system was temporarily reduced.

There has been slight performance improvement for Q2 of 2023, with on-time performance at 98% and trip denials at 2.7%. Transit staff expect more improvement as the ten Promaster vans previously ordered for 2023 continue to be outfitted for service; they are expected to be in-service by the end of August 2023.

DARTS expects that leasing the seven Promaster vans in place of the Toyota Sienna vans will accommodate more client trips and improve the customer experience. Promaster vans offer better flexibility in scheduling as they can accommodate more passenger trips. They are also better at meeting various client mobility needs.

The current 2023 budget includes leasing the Toyota Sienna vans to end of year, and replacement of those vehicles would be part of the 2024 budget cycle. There will therefore be minor leasing costs of \$45,393 associated with onboarding the Promaster vans during the 2023 budget year, as outlined in Appendix “A” attached to Report PW23060, which are currently not included in the 2023 budget, but which are well within the current 2023 forecasted budget surplus of \$1,500,000. DARTS does not expect any other change to 2023 operating costs from the above plan.

The expected 2024 total budget impact from the aforementioned changes is an increase of \$673,000, based on the predicted costs for vehicle repair and maintenance, predicted leasing costs, and predicted number of passenger trips per hour. The amount will be included in the 2024 budget discussions between Accessible Transportation Services and DARTS. Accessible Transportation Services will work with DARTS to determine possible mitigation strategies. Equity realized from the sale of the Toyota Sienna vans is expected to offset some of the Promaster van lease costs.

Based on the DARTS projections provided in Appendix “A” attached to Report PW23060, the five-year total cost, before inflation, will be approximately \$2,737,393 and the cost up to the end of the Promaster van lease term (2028) will be \$3,410,393. By comparison, the cost to purchase seven Toyota Sienna vans at end of lease and operate them in 2024 would be approximately \$1,093,236 as outlined in Appendix “A” attached to Report PW23060.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW23060 – Summary of DARTS Total Vehicle Costs: Toyota Sienna Vans and Promaster Vans


Summary of Forecasted Total Vehicle Cost Impact: DARTS Toyota Siennas vans and Promaster vans									
		2023	2024	2025	2026	2027	Total Cost Impact 2023-2027	2028 (end of Promaster van leases)	Total Cost Impact 2023-2028
Sienna ¹	Operating	\$ 21,680	\$ 856,846						
	Maintenance	\$ 102,243	\$ 112,467						
	Total Impact	\$ 123,923	\$ 969,313				\$ 1,093,236		
Promaster	Total Operating ²	\$ 45,393	\$ 673,000	\$ 673,000	\$ 673,000	\$ 673,000	\$ 2,737,393	\$ 673,000	\$ 3,410,393

Note 1 - Per DARTS, purchasing Siennas end of lease 2023 result in the above projected operating costs over and above their approved budget; 2023 budget for Siennas is approximately \$1,000,000

Note 2 - Per DARTS, Promaster total operating costs include leasing and net maintenance costs



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Transportation Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	September 18, 2023
SUBJECT/REPORT NO:	Cootes Drive Street Lighting TransCanada PipeLines Limited Crossing Agreement (PW23057) (Ward 13)
WARD(S) AFFECTED:	Ward 13
PREPARED BY:	Mike Field (905) 546-2424 Ext. 4576 Dhafir Hameed (905) 546-2424 Ext. 7811
SUBMITTED BY:	Carolyn Ryall Director, Transportation Public Works Department
SIGNATURE:	

RECOMMENDATION

That the General Manager, Public Works or designate be authorized and directed to execute, on behalf of the City of Hamilton, a crossing agreement with TransCanada PipeLines Limited to permit the completion of street lighting-related underground work along Cootes Drive, east of Olympic Drive.

EXECUTIVE SUMMARY

The City of Hamilton approached TransCanada PipeLines Limited to request completing municipal streetlighting rehabilitation work within the TransCanada PipeLines Limited pipeline transmission corridor on Cootes Drive.

TransCanada PipeLines Limited jurisdiction crosses Cootes Drive about 120 meters east of Olympic Drive. The width of TransCanada PipeLines Limited's right-of-way is 30 meters on each side of the pipeline, with an affected area of 60 meters. Refer to Appendix "A" attached to Report PW23057.

The purpose of this report is to provide the authority to execute an agreement with TransCanada PipeLines Limited to allow the completion of the streetlighting project scope within the TransCanada PipeLines Limited pipeline transmission corridor.

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

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

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

**SUBJECT: Cootes Drive Street Lighting TransCanada PipeLines Limited
Crossing Agreement (PW23057) (Ward 13) – Page 2 of 3**

Alternatives for Consideration – N/A**FINANCIAL – STAFFING – LEGAL IMPLICATIONS**

Financial: N/A

Staffing: N/A

Legal: The crossing agreement must be executed for the Cootes Drive street lighting project to be completed.

HISTORICAL BACKGROUND

In 2021, Council approved Capital Project ID 4662110018 for the rehabilitation of the street lighting system along Cootes Drive, specifically from Spencer Creek to East Street North / Dundas Street. This project was granted a budget of \$560,000.

On November 12, 2021, the contract C15-71-21 (SL) was successfully awarded to Ark-Tech Contracting Ltd. This contract entails the replacement of the street lighting system along Cootes Drive. The anticipated completion date for this project is quarter 4 of 2023.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

N/A

RELEVANT CONSULTATION

City of Hamilton's Legal Services were consulted in the development of this report pertaining to the crossing agreement with TransCanada PipeLines Limited.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

The initiative to replace the Cootes Drive street lighting system was prompted by the deteriorating condition of the existing infrastructure, which was incurring substantial maintenance and operational expenses. Given this, the decision to replace the entire system, including poles, arms, underground wiring, and power supplies, was conceived and officially approved in 2021. The construction phase began in 2021 through contract C15-71-21(SL).

Notably, Cootes Drive accommodates an underground pipeline transmission corridor maintained by TransCanada PipeLines Limited. This corridor intersects with Cootes Drive roughly 120 meters east of the Olympic Drive junction.

**SUBJECT: Cootes Drive Street Lighting TransCanada PipeLines Limited
Crossing Agreement (PW23057) (Ward 13) – Page 3 of 3**

In accordance with the Canadian Energy Regulator Pipeline Damage Prevention Regulations – Obligations of Pipeline Companies, which is established under the Canadian Regular Act S.C. 2029, c.28, certain responsibilities and prerequisites are outlined to ensure the safe operation of pipeline transmission corridors. Given that the planned street lighting project along Cootes Drive necessitates work in close proximity to the TransCanada PipeLines Limited pipeline transmission corridor, the City is mandated to secure a crossing agreement to facilitate this work. It is important to note that acquiring this agreement carries no associated costs, and its purpose is to enable the City's contractor to successfully carry out the street lighting project.

Street lighting works have been completed on Cootes Drive west of Olympic Drive. The segment of Cootes Drive to the east of Olympic Drive is substantially complete, except for the installation of two streetlight poles and associated underground wiring that is within the TransCanada PipeLines Limited's right-of-way. Provided that an agreement with TransCanada PipeLines Limited can be acquired, all work is anticipated to be completed in quarter 4 of 2023.

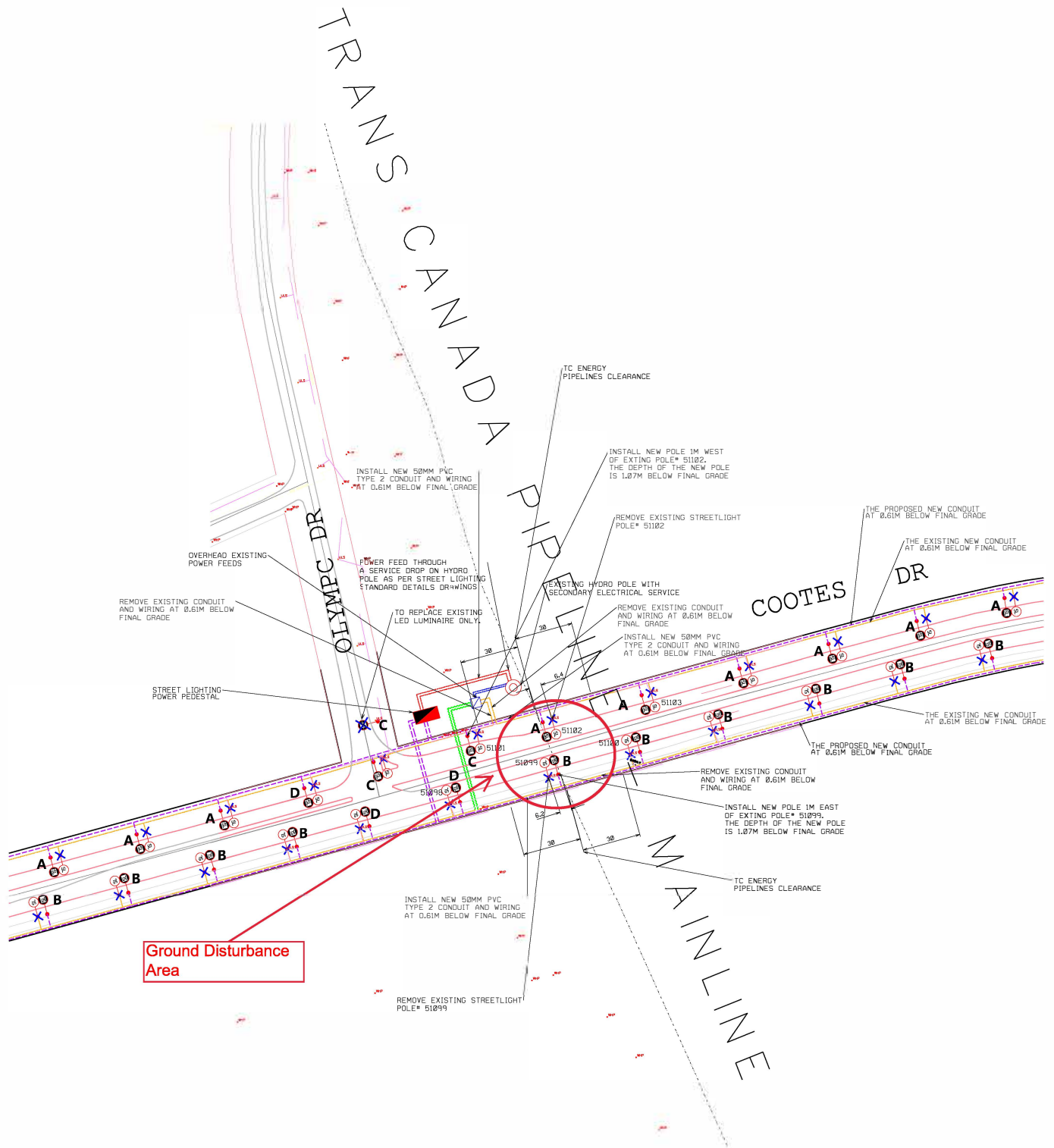
ALTERNATIVES FOR CONSIDERATION

N/A

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" to Report PW23057 – Cootes Drive Transmission Pipeline Location

D-32465-2





CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Environmental Services Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	September 18, 2023
SUBJECT/REPORT NO:	Funds Required for Award of Tender C15-43-23 (P) Alexander Park - Construction of a Skatepark Facility (PW23058) (Ward 1) (Ward 13)
WARD(S) AFFECTED:	Wards 1 and 13
PREPARED BY:	Ken Wheaton (905) 546-2424 Ext. 2289
SUBMITTED BY:	Cynthia Graham Director, Environmental Services Public Works Department
SIGNATURE:	

RECOMMENDATION

That the budget for Alexander Park Skatepark project (Project ID 4401956922) be increased by \$757,880.00 and funded 95% or, \$719,986.00, from the Parkland Development Charge Reserve-Residential (DeptID 110316), and 5%, or \$37,894.00, from the Parkland Development Charge Reserve-Non-Residential (DeptID 110317).

EXECUTIVE SUMMARY

The Alexander Park Skatepark project is identified in the 2019 capital budget, with construction initially identified to be completed in 2022. The project is funded through Development Charges and gas tax funding.

Currently, Project ID 4401956922 has \$2,001,021.62 in available funding. The lowest bid received in the pre-qualified tender process was \$2,562,410.35. As a result, staff entered negotiations with the lowest bidder, with the oversight of the City's Procurement Section. Negotiations resulted in an agreed-upon revised tender value of \$2,464,712.35. Since the negotiated lowest tender bid is higher than the funds available (\$2,464,712.35 plus contingency and non-recoverable HST), an increase of \$757,880 is required to award the tender.

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

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

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

**SUBJECT: Funds Required for Award of Tender C15-43-23 (P) Alexander Park -
Construction of a Skatepark Facility (PW23058) (Ward 1 and 13)
– Page 2 of 5**

Alternatives for Consideration – See Page 4

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: The increased cost of \$757,880 for the Alexander Skatepark (Project ID 4401956922) will be funded through the Development Charge Reserves. The funding allocation proposed is, 95% or, \$719,986, from the Parkland Development Charge Reserve-Residential (DeptID 110316), and 5%, or \$37,894, from the Parkland Development Charge Reserve-Non-Residential (DeptID 110317).

Reasons for Cost Increases:

- (a) Inflation rates have increased costs considerably throughout the construction industry from the time of the initial budget estimate in 2019;
- (b) At the time of budget estimate, the project details were based on previous, similar projects and an assumption of soil conditions. The project's Geotechnical Investigation has identified a large volume of soil unsuitable to be re-used on-site. These soils will need to be removed and disposed of off-site, and those associated costs are significant as fuel surcharge and disposal fees continue to rise.

Staffing: N/A

Legal: N/A

HISTORICAL BACKGROUND

In 2017, the City's Skateboard Park Study (CES17031) was presented to the Emergency and Community Services Committee and endorsed by Council. This study was initiated as a result of the Outdoor Recreation Facilities & Sports Field Provision Plan (also known as the Outdoor Study). The Outdoor Study identified a deficiency in the number of skateboard/wheeled sports amenities throughout the City.

The Skateboard Park Study evaluated candidate sites, and Alexander Park was selected as a priority location for implementing a community level multi-wheeled skatepark amenity. Community level skateparks are larger in size than neighbourhood level skatepark facilities and are intended to serve larger user populations. This facility is intended to serve the residents of west Hamilton and Dundas predominantly but will be popular with users from across the City.

**SUBJECT: Funds Required for Award of Tender C15-43-23 (P) Alexander Park -
Construction of a Skatepark Facility (PW23058) (Ward 1 and 13)
– Page 3 of 5**

In June 2021, the project design process began with a virtual meeting, and a call for focus group members, consisting of users and stakeholders of different ages, skill levels and with various wheeled sports interests. Working with almost 50 focus group participants, various conceptual designs were developed, with the group selecting two preferred options, which were presented to and voted on by the broader public in early 2022. More project information is available online at: www.hamilton.ca/alexanderpark.

While the conceptual design progressed, geotechnical investigations revealed potentially unstable soil fill beneath the proposed skatepark location. Other locations for the amenity were explored on-site, but the original location was determined to be the best and most suitable area for the skate park. Multiple options to remediate the unstable soils were explored, with the most cost-effective, and functional solution involving excavation of the unstable soils, testing and re-compacting soils, and removal of soils unsuitable for re-use as structural fill. To reduce the amount of excess soil being removed from the site, the design team added berms and raised the elevation of the skate park slightly, but a significant volume of soil still requires removal.

The prequalification Request for Proposal was completed in January 2023 to ensure qualified contractors would complete the work, as the construction of skateboard parks is highly specialized with a limited field of contractors with experience. Of the four submissions received during the prequalification process, two were successfully prequalified. The C15-43-23 (P) Alexander Skatepark tender closed on July 10, 2023, with two bids received from the prequalified vendors.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

N/A

RELEVANT CONSULTATION

Staff have been in consultation with the following internal groups:

- Finance & Administration
- Procurement
- Design

All are supportive of the recommendation.

Consultation with the public, adjacent businesses, property owners, a rider-focused working group, utilities, and government agencies was completed as part of the design process.

**SUBJECT: Funds Required for Award of Tender C15-43-23 (P) Alexander Park -
Construction of a Skatepark Facility (PW23058) (Ward 1 and 13)
– Page 4 of 5**

ANALYSIS AND RATIONALE FOR RECOMMENDATION

Throughout all phases of design, detailed cost estimates were prepared. Pricing for cost estimates was based on recent tenders, including the City's most recently completed skatepark project from 2021 and took into consideration increased construction costs and inflation.

Escalation in prices related to materials, labour, fuel and excess soils far exceed what was anticipated during the detail design and estimating process despite the due diligence undertaken.

The department of Public Works, Environmental Services Division, supported by Corporate Finance Staff, provide funding source recommendations in Report PW23058 to allow for the award and completion of the Alexander Park Skatepark, C15-43-23 (P). The project is part of a Council supported Skateboard Park Study (CES17031), its associated priorities for implementation, and is highly anticipated as a new community level skateboard park for the west side of the lower city.

ALTERNATIVES FOR CONSIDERATION

Alternative 1

An alternative for consideration is not to award the tender and defer the project construction to a future year. From a procurement perspective, the scope of work would also require significant alteration to re-tender the project and avoid the perception of bid shopping. Staff do not recommend this alternative.

Financial: Staff must extend the design consulting contract to revise the design to meet procurement requirements to re-tender the project. We anticipate those costs to be approximately \$75,000.00 to revise the design and contract package as procurement requires. Overall construction costs would be similar to the current bid, with the possibility of an increased cost due to current industry trends.

Staffing: N/A

Legal: N/A

Alternative 2

That a re-design of the skatepark be created to reduce costs. Staff do not recommend this option as the design is based on community consultation and is consistent with the

**SUBJECT: Funds Required for Award of Tender C15-43-23 (P) Alexander Park -
Construction of a Skatepark Facility (PW23058) (Ward 1 and 13)
– Page 5 of 5**

size and scope of other community-sized skateboard park amenities. Substantial changes will result in additional time to re-engage with the public. This approach would also require additional consulting fees to work through the design and re-tender the project. Further cost escalations would be anticipated due to inflation, material, and staffing costs of consultants and contractors

Financial: A redesign would result in additional consulting fees of approximately \$250,000.00, as the public consultation process would need to be completed as part of the redesign. It's assumed the delayed project timeline will contribute to higher, overall construction costs due to the rising costs the construction industry is experiencing.

Staffing: N/A

Legal: N/A

APPENDICES AND SCHEDULES ATTACHED

N/A



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Environmental Services Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	September 18, 2023
SUBJECT/REPORT NO:	Management of the Aviary at 85 Oak Knoll Drive (PW23062) (Ward 1) (Outstanding Business List Item)
WARD(S) AFFECTED:	Ward 1
PREPARED BY:	Robyn Pollard (905) 546-2424 Ext. 3919
SUBMITTED BY:	Cynthia Graham Director, Environmental Services Public Works Department
SIGNATURE:	

RECOMMENDATION

- (a) That staff from the Animal Services Section of the Licensing and By-law Services Division (“Animal Services Staff”) engage a qualified veterinarian (the “Veterinarian”) to assist with the development of a plan to relocate the birds housed at the Aviary (the “Rehoming Strategy”);
- (b) That Animal Services Staff, in consultation with the Veterinarian and the Friends of the Aviary, be directed to develop a Rehoming Strategy and complete the rehoming of all birds housed at the Aviary (the “Aviary Birds”) not later than October 30, 2024;
- (c) That the General Manager, Public Works be authorized to negotiate the terms and conditions to transfer ownership of the Aviary Birds to the Friends of the Aviary not later than November 1, 2024, and to terminate the existing agreement with the Friends of the Aviary, once all of the Aviary Birds have been successfully rehomed in accordance with recommendation (b) of Report PW23062;
- (d) That, in the event that the General Manager, Public Works and the Friends of the Aviary are unable to negotiate an agreement that will facilitate the transfer of ownership of any of the Aviary Birds in accordance with recommendation (c)

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

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

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

SUBJECT: Management of the Aviary at 85 Oak Knoll Drive (PW23062) (Ward 1)
– Page 2 of 10

of Report PW23062, the General Manager, Public Works be authorized to transfer ownership of such Aviary Birds as the General Manager, Public Works deems appropriate;

- (e) That the Friends of the Aviary be required to vacate the Aviary building at 85 Oak Knoll Drive once all of the Aviary Birds have been rehomed in accordance with recommendation (b) of Report PW23062;
- (f) That the Chief Corporate Real Estate Officer be authorized and directed to terminate the Lease with the Royal Botanical Gardens for the leased premises at 85 Oak Knoll Drive, Hamilton, on such terms and conditions deemed appropriate by the Chief Corporate Real Estate Officer, in consultation with the General Manager, Public Works, taking into consideration the timing of vacating the Aviary building;
- (g) That, in the event that Royal Botanical Gardens terminates the City's tenancy at the existing Aviary facility located at 85 Oak Knoll Drive, Hamilton prior to all Aviary Birds being rehomed in accordance with recommendation (b), the General Manager, Public Works be authorized to arrange for the relocation of any remaining Aviary Birds to a temporary facility as deemed appropriate by the General Manager, providing that the health and wellbeing of the Aviary Birds is met while efforts continue to re-home those birds;
- (h) That the General Manager, Public Works be authorized and directed to execute any and all necessary contracts, agreements or other documents arising from recommendations (a)-(g) of Report PW23062 or as otherwise required to complete the rehoming of the Aviary Birds, on terms satisfactory to the General Manager, Public Works and in a form satisfactory to the City Solicitor;
- (i) That staff determine an alternative location for the community garden currently located at 85 Oak Knoll Drive, while ensuring the community is able to use it until October 31, 2024;
- (j) That Management of the Aviary at 85 Oak Knoll Drive be removed from the Outstanding Business List.

EXECUTIVE SUMMARY

The Aviary is currently located in Churchill Park, on land owned by the Royal Botanical Gardens and originally leased to the City of Hamilton by way of Lease Agreement dated May 27, 1996 (the "Lease"). Currently the Lease is in overhold and continues on a month to month basis. A new lease has not been executed. The Lease includes 2.8

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

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

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

SUBJECT: Management of the Aviary at 85 Oak Knoll Drive (PW23062) (Ward 1)
– Page 3 of 10

hectares of lands, municipally identified as 85 Oak Knoll Drive. The 2.8 hectares includes a house, which acts as an aviary, and a community garden formerly known as the Children's Teaching Garden.

In discussions, representatives of the Royal Botanical Gardens have stated long-term use of the property will be determined as the Royal Botanical Gardens advances its 25-year Master Plan. With no long-term lease in place, the Friends of the Aviary have advised that they cannot apply for capital grants that would provide the funds needed to continue to operate. Although the Friends of the Aviary have indicated that they are open to a continued partnership with the City and/or the Royal Botanical Gardens, they have also noted they are willing to acquire ownership of the Aviary Birds from the City and operate an aviary independently.

In July 2023, staff engaged a consultant to complete a condition assessment of the house currently used as the Aviary. The assessment noted significant repairs are required. The report does not state that there is an imminent risk to the health and safety of the public, Aviary Birds or volunteers. Royal Botanical Gardens accepts the recent conditions report for the building at the Westdale property. The building and location was intended to be an interim home for the Aviary. The Community Gardens are expected to continue to operate as they have in recent years. Long-term use of the Westdale property will be determined as RBG advances its 25-year Master Plan."

Staff are therefore recommending that Animal Services Staff, in consultation with a Veterinarian and the Friends of the Aviary, work to rehome the Aviary Birds and transfer ownership of the Aviary Birds to the Friends of the Aviary, by October 31, 2024 to ensure there is enough time to provide suitable homes for each of the Aviary Birds. Thus, removing the City of Hamilton from future obligations relating to the care of the Aviary Birds or operation of the Hamilton Aviary. Re-homing of large exotic birds is not an easy task and as the Aviary building is deteriorating, there is a need to commence re-homing efforts, which have been seriously discussed since 2017, but never actioned.

Re-homing the Aviary Birds will be completed using the expertise of the Animal Services Staff, in collaboration with a qualified Veterinarian and the Friends of the Aviary. New homes for the Aviary Birds will be with rescue organizations or individuals that have the required knowledge and facilities to properly care for the Aviary Birds.

Once the Rehoming Strategy has been coordinated and completed, ownership of the Aviary Birds will be transferred from the City of Hamilton to the Friends of the Aviary and the agreement with the Friends of the Aviary will be terminated. The agreement between the Friends of the Aviary and the City of Hamilton is dated June 22, 2018 and continued on a month to month basis until present. The existing Lease for this portion of the lands between the City of Hamilton and the Royal Botanical Gardens will also be terminated once the Aviary has been vacated.

SUBJECT: Management of the Aviary at 85 Oak Knoll Drive (PW23062) (Ward 1)
– Page 4 of 10

Transition plans for the Community Garden have not been determined at this time, however staff have begun discussions with the users of the 80-plot garden and are committed to determining an alternative location for the gardens as well as ensuring the gardens in the current location are available until October 31, 2024.

Once the Aviary Birds are re-homed, the Aviary will be closed at an operating budget savings of \$57,648 annually.

Alternatives for Consideration – See Page 7

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: Closing the Aviary will result in an annual operating budget savings of \$57,648.

Expenses related to re-homing the Aviary Birds is not known at this time. Staff will report within variance reporting if expenses are beyond current annual operating budget. All expenses incurred will be paid through 446036 - Aviary Operations.

Staffing: N/A

Legal: Legal Services will assist with drafting all necessary documents and agreements arising from the recommendations contained within this report.

HISTORICAL BACKGROUND

The Hamilton Aviary is located in Churchill Park, on land owned by the Royal Botanical Gardens and originally leased to the City of Hamilton for a period of five years by way of Lease dated May 27, 1996. The Lease was subsequently renewed for a further five-year term commencing on June 1, 2001 and expiring on May 31, 2006. The term of this Lease has expired and is continuing on a month to month basis according to provisions in the lease. The Lease includes 2.8 hectares of land, municipally identified as 85 Oak Knoll Drive. The 2.8 hectares includes a house, which acts as an aviary, and a community garden formerly known as the Children's Teaching Garden.

The converted house has received basic maintenance over the years, however, it has reached a point where such repairs are frequent, costly, and insufficient to address the overall decline of the structure. As lease holder for the property, according to the provisions of the lease, the City of Hamilton does not have authority to make capital investments into the building.

SUBJECT: Management of the Aviary at 85 Oak Knoll Drive (PW23062) (Ward 1)
– Page 5 of 10

The City of Hamilton currently operates the Hamilton Aviary within the Forestry and Horticulture section. The aviary originated on the lands of Dundurn Castle but was moved in 1996 when Dundurn Castle was being extensively renovated. The City funds the care of all Aviary Birds including food and veterinarian expenses, and maintains the building, and the surrounding grounds. Through agreement with the Friends of the Aviary, a not-for-profit volunteer organization, commencing in 1992, the day-to-day care of the Aviary Birds has been provided by volunteers including enrichment activities for the birds and community engagement. At present, there are 6 finches and 19 parrots. The Aviary operates as a closed Aviary, meaning it does not take in new birds or breed existing birds. The number of Aviary Birds has declined from 65 birds in 2010 to 37 in 2020 and just 25 in 2023.

Report PW17080 outlines that in 2010, Report PW10033 brought forward the Gage Park Master Plan. Recognizing that the Aviary had not had a permanent purpose-built home since 1995, and that the converted house was outdated and required extensive repairs, the Master Plan proposed a new aviary structure. When Council considered the Gage Park Master Plan, it decided not to proceed with several proposed elements, including an aviary structure and the aviary continued to operate with no long-term plan in place.

In 2012, Report CM11009(b)/FCS110569(b) was prepared in collaboration with KPMG and both the Service Delivery Review Strategy Team and the Senior Management Team to determine recommended service areas with the greatest potential for further review and service improvement. The report noted the closure of the aviary as opportunity number 22, however, the Aviary continued to operate under the Forestry and Horticulture section with the ongoing assistance of the volunteers within the Friends of the Aviary organization.

In 2017, Report PW17080 provided similar staff recommendations as outlined within this report; however, the recommendations were amended to allow the Friends of the Aviary an opportunity to report back with a plan to re-home the Aviary Birds within a specific timeframe, failing which the Animal Control Section and a licensed Veterinarian would commence relocating the Aviary Birds and closing the Hamilton Aviary. In addition, Council directed the clean up the Aviary building to address orders issued to the City by the Ontario Society of Prevention of Cruelty to Animals. The clean-up work was completed, and the Ontario Society of Prevention of Cruelty to Animals orders were satisfied, however the Friends of the Aviary were unable to meet the deadline to re-home the Aviary Birds.

In February 2019 Council approved the following recommendations from Item 8.3 of Public Works Committee Report 19-002:

OUR Vision: To be the best place to raise a child and age successfully.
OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.
OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

SUBJECT: Management of the Aviary at 85 Oak Knoll Drive (PW23062) (Ward 1)
– Page 6 of 10

- (a) That staff be directed to meet with the Friends of the Aviary and the Royal Botanical Gardens (RBG) and formally outline options to review and establish sustainability;
- (b) That staff report back to the Public Works Committee on the feasibility of the Friends of the Aviary's proposal as well as the benefits to the City of Hamilton of being in the Aviary business; and
- (c) That the agreement with the Friends of the Aviary be extended on a month to month basis until staff report back to the Public Works Committee with their findings.

Through Report PW17080(a) in December of 2019, Council directed staff be authorized and directed to negotiate and enter into a lease agreement with the Royal Botanical Gardens for the continued use of the 85 Oak Knoll Drive building. Staff finalized a Lease Extension and Amending Agreement in 2020, however to date it has not been executed and the Lease continues on a month to month overhold.

Since 2019, Council has been waiting for a report back on the Management of the Aviary, however, staff have struggled to provide recommendations as the situation has continued unchanged since 2017 and the existing building continues deteriorating which further increases the cost to maintain and operate the Hamilton Aviary.

In 2020, Report PW19108 outlined the potential acceptance by the City of a \$1,000,000 donation to support the construction of a new City of Hamilton Aviary and direction to complete a feasibility study, cost estimate, and operational business plan for a new City of Hamilton Aviary at Gage Park. Through PW19108(a) in April of 2020, staff reported to Council that the anonymous donor had received the request from the City for an extension and did not find it acceptable.

In addition, the donor noted in their response letter that they would be meeting with the Friends of the Aviary directly to determine what options they have to build an independent Aviary. Due to the Donor's rejection of the extension proposed by staff, the \$110,000 approved for the completion of a feasibility study, cost estimate, and operational business plan for a new City of Hamilton Aviary at Gage Park would no longer be pursued. Staff confirmed again in 2023 with the Friends of the Aviary that this donation is still available to their organization.

On April 8, 2020, through Report PW19108(a), staff advised Council they would follow up with a report to the Public Works Committee in Q2, 2020 to outline the next steps in the management of the Aviary. Discussions between the Royal Botanical Gardens, board members from the Friends of the Aviary, and City staff have been ongoing since that time.

SUBJECT: Management of the Aviary at 85 Oak Knoll Drive (PW23062) (Ward 1)
– Page 7 of 10

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Compliance with the *Provincial Animal Welfare Services Act, 2019 (the “Act”)* is required in the rehoming of the Aviary Birds. The Act prohibits anyone who owns or has custody of an animal to permit the animal to be in distress. The Act defines “distress” as including the state of being in need of proper care, water, food, and shelter. The Act allows for inspections to be conducted to determine compliance with the Act, and permits the issuance of orders to address non-compliance with the Act.

RELEVANT CONSULTATION

The following internal groups have been consulted on the recommendations of Report PW23062 and are in support:

- Public Works Department, Corporate Facilities & Energy Management, Division
- Corporate Services Department, Legal & Risk Management Division
- Corporate Services Department, Financial Planning, Administration & Policy Division, Finance & Administration
- Planning & Economic Development Department, Licensing & By-Law Services Division, Animal Services
- Planning & Economic Development Department, Tourism and Culture Division, Heritage Resource Management
- Planning & Economic Development Department, Economic Development Division, Corporate Real Estate
- Healthy and Safe Communities Department, Housing Services Division, Neighbourhood Development

In addition, the following external groups have been consulted on the recommendations of Report PW23062 to ensure input from relevant stakeholders was considered:

- Friends of the Aviary. The Friends of the Aviary indicate that their primary concern is continuing to operate as an organization, with the ultimate goal to own the birds.
- Royal Botanical Gardens accepts the recent conditions report for the building. The building and location was intended to be an interim home for the Aviary. The Community Gardens are expected to continue to operate as they have in recent years. Long-term use of the Westdale property will be determined as RBG advances its 25-year Master Plan.

SUBJECT: Management of the Aviary at 85 Oak Knoll Drive (PW23062) (Ward 1)
– Page 8 of 10

ANALYSIS AND RATIONALE FOR RECOMMENDATION

As directed by Council, staff have had ongoing discussions focused on the future operation of the Hamilton Aviary with members of the Friends of the Aviary and the Royal Botanical Gardens.

The Royal Botanical Gardens has stated that an aviary would not be part of their future plans through the completion of the 25-year Master Planning Initiative. The Royal Botanical Gardens has communicated that they will likely have an alternative use for the lands located at 85 Oak Knoll Drive in the future.

Although the Friends of the Aviary are willing to continue to partner with either the City and/or the Royal Botanical Gardens, their revenues have averaged about twenty thousand dollars (\$20,000) annually, and the required capital for a structure to house an aviary has not been raised to date. The Friends of the Aviary have stated they would be willing to operate the aviary independently of the City and have expressed interest in acquiring ownership of the Aviary Birds.

By transferring ownership of the Aviary Birds, the Friends of the Aviary have indicated to staff that they would be more successful in raising capital which, together with a large donation previously offered to Friends of the Aviary, would allow them to open a new Aviary at some point in the future.

Operating expenses related to the aviary have risen from \$28,968 in 2012 to \$69,911 in 2022. In 2019, expenses were significantly over budget totalling \$76,242 due to building repairs needed. Staff estimate that operating expenses will continue to rise due to the deterioration of the building.

In July 2023, staff engaged an outside consultant to complete a condition assessment of the Aviary building which noted significant repairs are required. In summary, the report estimated capital and operating facility expenditures of \$209,465 for 2023, and capital expenditures of \$16,500 in 2024. In addition to the estimated costs, the renovations required would be very disruptive and detrimental to the health of the Aviary Birds as they would need to be temporarily relocated during construction.

As the current Lease outlines that capital repairs are the responsibility of the Royal Botanical Gardens, the City shared the report with the Royal Botanical Gardens however since the long-term future of the Aviary is not supported at this location, staff are not recommending repairs be completed, but shared the report with the Royal Botanical Gardens staff in good faith.

SUBJECT: Management of the Aviary at 85 Oak Knoll Drive (PW23062) (Ward 1)
– Page 9 of 10

In summary, rehoming the Aviary Birds, transferring ownership of the Aviary Birds to the Friends of the Aviary, and closing the Hamilton Aviary is recommended by staff in Report PW23062 to ensure the health and wellness of the Aviary Birds.

ALTERNATIVES FOR CONSIDERATION

Alternative 1

That Animal Services Staff be directed to re-home the Aviary Birds to an accredited facility with the assistance of a qualified Veterinarian. Ownership of the Aviary Birds would be transferred to the facility after which the existing Lease between the Royal Botanical Gardens and the City would be terminated. This alternative is not recommended because the Friends of the Aviary have been providing good care for the Aviary Birds and are willing to take on the ownership of them to continue operating as an organization.

Financial: The current annual operating budget of \$57,648 is expected to cover the costs of operating and maintaining the current aviary while re-homing the birds.

Expenses related to re-homing the Aviary Birds to an accredited facility is not known at this time. Staff will report within variance reporting if expenses are beyond current annual operating budget. All expenses incurred will be paid through 446036 - Aviary Operations.

Staffing: N/A

Legal: Legal Services will assist with drafting all necessary agreements arising from the Alternative 1.

Alternative 2

That staff be directed to complete a site search within the City of Hamilton and report back on the feasibility of the City continuing to operate the Hamilton Aviary in a new location. This alternative is not recommended as a search for a new location within City lands has been reviewed with no immediate locations determined. The time required for land search, facility construction and moving of the birds does not align with the time frame of building deterioration at the current location.

Financial: Unknown at this time, staff would require direction to report back.

Staffing: Unknown at this time, staff would require direction to report back.

SUBJECT: Management of the Aviary at 85 Oak Knoll Drive (PW23062) (Ward 1)
– Page 10 of 10

Legal: Unknown at this time, staff would require direction to report back.

Alternative 3

That staff be directed to investigate a plan to move the Hamilton Aviary back to Dundurn Castle. This alternative is not recommended or supported by Tourism and Culture as the original aviary does not feature in the site's Statement of Significance as a [National Historic Site](#), nor does it align with the site's interpretive focus date of 1855, and lastly, it does not align with the Interpretive Strategy or the Civic Museum Strategy approved by Council in 2021.

Financial: Unknown at this time, staff would require direction to report back.

Staffing: Unknown at this time, staff would require direction to report back.

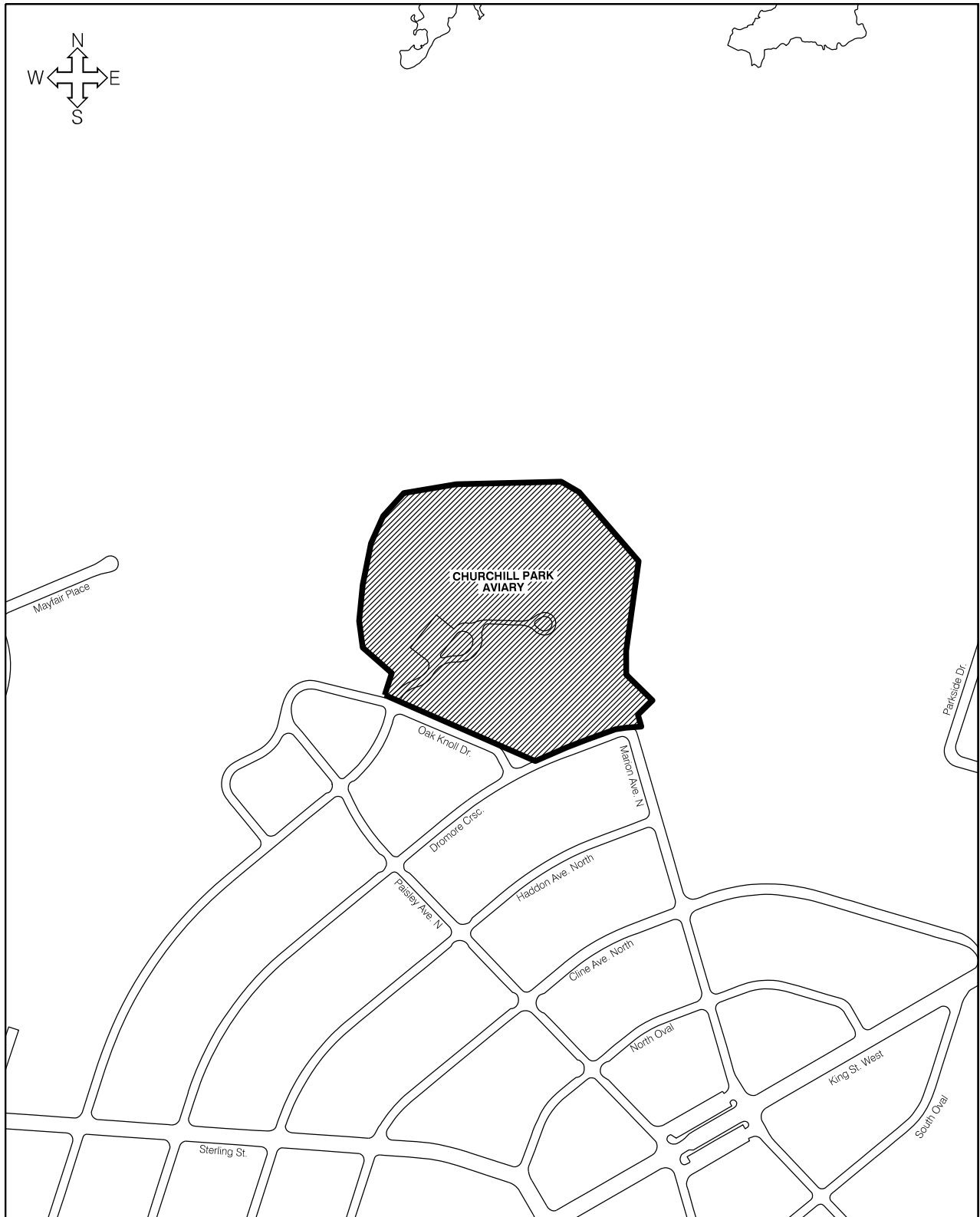
Legal: N/A

The recommendations within Report PW23062 focus on the well-being of the existing Aviary Birds, which can only be achieved if the birds are moved to purpose-built locations with exceptional care provided by individuals with the appropriate knowledge and expertise.

Therefore, Alternatives for Consideration number 2 and 3 are not supported by staff. The construction of a new aviary does not align with Council Priorities.

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" of Report PW23062 – Current location of Hamilton Aviary, showing the lands that would be returned to the Royal Botanical Gardens upon termination of current lease.



12.1

CITY OF HAMILTON

MOTION

Public Works Committee: September 18, 2023

MOVED BY COUNCILLOR M. FRANCIS.....

SECONDED BY COUNCILLOR

Consultation and Assessment of Transit Route Options as it relates to the Retirement of Route 58 Stoney Creek Local (Ward 5)

WHEREAS, year 7 of the Ten-Year Transit Strategy was approved on March 29, 2023, as part of the 2023 Annual Operating Budget;

WHEREAS, year 7 of the Ten-Year Transit Strategy is focused on growth and modal split and included service enhancements through route span improvements and route extensions in Stoney Creek;

WHEREAS, the City of Hamilton’s Transit Division’s Strategic direction is to make Transit your first choice, by providing customer-focused service that is safe, reliable, and inclusive;

WHEREAS, the City of Hamilton entrusts the Transit Division to make critical planning decisions to ensure that service is planned holistically to provide a balance of convenience, and ease of access for the City’s residents travelling by transit throughout the City;

WHEREAS, the Transit Division uses Council approved Service Standards as a mechanism to objectively plan and manage service within budget;

WHEREAS, the Transit Division, through assessment using these Service Standards and historical data, and with consideration to the route extensions planned for year 7 of the Ten-Year Local Transit Strategy, determined that the route 58 Stoney Creek Local could be retired based on the route 5 Delaware extension in Stoney Creek, whereby services would be overlapped and duplicated, and whereby the route 5 Delaware provided a greater level of service in addition to facilitating improved connectivity across the entire transit network compared to the route 58 Stoney Creek Local;

WHEREAS, the Transit Division determined that the retirement of the route 58 Stoney Creek Local could provide reallocation of resources to support transit enhancements elsewhere in the City of Hamilton, and as such the resources were reallocated to other transit enhancements;

WHEREAS, the route 58 Stoney Creek Local was retired on September 2nd, 2023;

WHEREAS, the City of Hamilton promotes an open, transparent, and accessible approach to City government that engages with and empowers all citizens to be involved in their communities;

WHEREAS, Ward 5 Councillor Matt Francis received feedback from constituents of the Stoney Creek neighbourhood opposing the retirement of and requesting that route 58 Stoney Creek Local continue in operation; and

WHEREAS, constraints of time and resources including available operating budget prevent the continued operation of the route 58 Stoney Creek Local in 2023.

THEREFORE, BE IT RESOLVED:

- (a) That staff be directed to:
 - (i) Meet and consult with the Stoney Creek neighbourhood to determine their transit needs and priorities;
 - (ii) Complete an assessment of transit routing in Stoney Creek, to identify potential routing options that would allow for the restoration of direct connectivity from King Street West to Eastgate Square, and that would further improve transit services within Stoney Creek while limiting route duplication; and
 - (iii) Report back to the Public Works Committee with route alternatives, inclusive of resource requirements to align with feedback from the community consultation and the objectives of the Ten-Year Local Transit Strategy for consideration.
- (b) That the consultation and assessment of Transit Route Options as it relates to the Retirement of Route 58 Stoney Creek Local (Ward 5), be referred to the 2024 Operating Budget process.