



City of Hamilton Report for Information

To: Chair and Members
Public Works Committee

Date: October 20, 2025

Report No: PW17021(b)

Subject/Title: Update on Roadway Safety Measures on Aberdeen from Queen Street to Longwood Road

Ward(s) Affected: Ward 1

Recommendations

That Report PW17021(b) respecting Update on Roadway Safety Measures on Aberdeen Avenue from Queen Street to Longwood Road, **BE RECEIVED** for information.

Key Facts

- Collision data shows improved safety along Aberdeen Avenue, with fewer total collisions, no injury-related incidents, and no reported pedestrian or cyclist collisions following the pilot implementation.
- Travel times on Aberdeen Avenue and nearby routes such as Beckett Drive, Fennell Avenue, and Garth Street remained stable or improved, confirming that the pilot did not negatively impact traffic flow.
- On-street parking, intended as a traffic calming measure, proved ineffective due to low and inconsistent use, particularly on the south side of the roadway.
- Interim traffic calming measures, including bump-outs, reduced corner radii, and improved transit stop visibility, were implemented in 2025 to enhance safety and respond to community feedback.
- Aberdeen Avenue is scheduled for full reconstruction beginning in 2027, which will apply Complete Streets principles and lessons learned to create a safer, more inclusive corridor for all road users.

Financial Considerations

There are no financial considerations related to this report.

Background

On June 17, 2019, staff submitted Report PW17021(a) to the Public Works Committee, summarizing the roadway safety enhancements implemented along Aberdeen Avenue between Queen Street and Longwood Road. At that meeting, the Committee directed the Transportation Division to evaluate the effectiveness of these measures and report back. This follow-up report, PW17021(b), presents the results of that evaluation.

Analysis

At the March 29, 2017 City Council meeting, the Transportation Division was directed to implement a series of safety improvements along Aberdeen Avenue to enhance conditions for pedestrians. These actions included the installation of a new pedestrian signal, modifications to on-street parking, changes to pavement markings, and adjustments to traffic signal timing. Together, these measures were intended to improve safety and operations for all road users. Following implementation, staff continued to monitor traffic conditions and identified opportunities for further enhancements. In response, Report PW17021(a) recommended a second phase of improvements, which were approved by Council in June 2019. These included a leading pedestrian interval at the intersection of Aberdeen Avenue and Dundurn Street for pedestrians crossing the east side, a morning “No Right Turn on Red” restriction on the west side of the same intersection during school crossing guard hours, the removal of on-street parking on both sides of Aberdeen Avenue between Queen Street and Dundurn Street to reduce conflicts and support Vision Zero principles, and a flashing 40 kilometre per hour school zone on Aberdeen Avenue between Queen Street and Longwood Road, active during school arrival and dismissal times.

To assess the impacts of these changes, a pilot study was launched on September 24, 2020. The study focused on conditions along Aberdeen Avenue and also considered potential impacts on Beckett Drive, a major escarpment access connecting the lower city to the upper mountain. Recognizing this relationship, the study also reviewed traffic conditions on Fennell Avenue between Garth Street and James Mountain Road and on Garth Street between Fennell Avenue and Mohawk Road. These additional corridors were included in response to concerns raised by the public and Council about potential diversion or congestion resulting from changes on Aberdeen Avenue.

In early 2020, the COVID-19 pandemic significantly altered travel behaviour across Hamilton. Work-from-home policies, school closures, and restrictions on movement led to substantial changes in traffic patterns and volumes, which limited the reliability of early data collected as part of the pilot. To ensure that results would reflect typical travel conditions, Council approved an extension of the pilot on January 31, 2022. This

allowed for continued data collection through late 2022 and into early 2023, after travel activity had largely stabilized.

The Transportation Division conducted a comprehensive evaluation using data from four time periods: before the pandemic, during the early pandemic period, throughout pilot implementation, and after travel patterns normalized. The study examined traffic volumes, speeds, travel times, parking activity, and collision records along Aberdeen Avenue, Beckett Drive, Fennell Avenue, and Garth Street. Since the end of the detailed study period, the corridor has been subject to ongoing monitoring, with a focus on collision data and periodic speed and volume checks.

The evaluation found that most trips to Aberdeen Avenue between Queen Street and Dundurn Street originated from Wards 1, 2, and 8 or from the Highway 403 ramps. During the early pandemic and pilot phases, trips from outside Hamilton increased, while volumes from Ward 8 decreased. By 2022, trips from external origins declined again and volumes from Highway 403 increased. A similar pattern was observed on Beckett Drive, with slight decreases in local volumes from Wards 1 and 2 and a modest recovery in Ward 8 volumes. Speed data showed that average speeds on Aberdeen Avenue remained stable throughout the study and increased slightly by 2022. Speeds on Beckett Drive remained steady for most of the study but dropped by about seven percent post-pandemic. On Fennell Avenue and Garth Street, speeds initially declined but returned to or exceeded pre-pandemic levels by 2022.

Travel time analysis showed stable or improved conditions. Travel times on Aberdeen Avenue and Beckett Drive decreased slightly during the early pilot phase, while Fennell Avenue and Garth Street experienced modest increases. By 2022, travel times had decreased significantly across all four corridors. The most substantial improvement occurred on Fennell Avenue, where travel times were more than 50 percent shorter than pre-pandemic levels. Garth Street and Beckett Drive also showed marked improvements, indicating that the pilot configuration did not negatively affect traffic flow on upper mountain roadways.

Parking activity on Aberdeen Avenue was evaluated in April 2023. The corridor contains 56 public parking spaces on the north side and 32 on the south side between Queen Street and Dundurn Street. Utilization was concentrated between Queen Street and Kent Street on the north side, where mid-day occupancy reached nearly 70 percent. Other blocks showed low usage, and no vehicles were observed parked on the south side. Most of the parked vehicles were located near 210 Aberdeen Avenue, an apartment building. Observations confirmed that eastbound traffic generally flowed without obstruction, due to two consistently available travel lanes. Westbound traffic occasionally experienced queuing during peak periods, largely due to vehicles using the curb lane and merging back into traffic near Queen Street.

A comparison of collision data before and after implementation revealed a reduction in overall collision frequency and severity. In the two years prior to implementation, nine collisions were reported on the segment between Queen Street and Dundurn Street. In

2022, five collisions were reported, with no injury-related incidents. While rear-end collisions increased slightly, sideswipe collisions declined, and there were no reported collisions involving pedestrians or cyclists following implementation. These results indicate a general improvement in safety conditions, particularly for vulnerable road users. Supplementary data collected during the study phase is attached to Report PW17021(b) as Appendix 'A' for reference purposes.

In response to the pilot findings and input from the Ward 1 office and local residents, a series of interim traffic calming measures were implemented in the fourth quarter of 2025. These included the installation of five bump-outs to physically protect parking areas and reinforce the removal of curbside through lanes. At the intersections of Mountain Avenue and Fairmount Avenue, corner radii were reduced to improve intersection geometry and enhance pedestrian safety, in accordance with the City's Complete Streets Design Manual. Pavement markings were updated to reflect these changes, and enhancements were also introduced at transit stops to improve visibility and accessibility.

The Aberdeen Avenue pilot achieved measurable improvements in safety outcomes and preserved overall corridor efficiency. Concerns that changes on Aberdeen Avenue would negatively affect traffic flow on Beckett Drive or upper mountain routes such as Fennell Avenue and Garth Street were not supported by the data. These corridors experienced stable or improved travel times by the end of the study period. However, one of the pilot's primary strategies, using on-street parking as a traffic calming tool, did not perform as intended. Parking activity was too low and inconsistent to create a reliable visual or physical narrowing effect. As a result, some motorists, particularly westbound, continued to use the curb lane before abruptly merging into the through lane near Queen Street. While anecdotal observations suggest that parking activity has increased slightly in some locations since 2023, overall utilization remains limited.

The interim traffic calming infrastructure introduced in 2025 reflects a responsive next step in addressing these challenges and supporting the goals of the pilot. The safety improvements observed along Aberdeen Avenue in 2025 are not the result of a single measure, but rather the outcome of multiple enhancements implemented over several years. This demonstrates the effectiveness of the City's foundational approach based on Vision Zero's safe systems principles, which emphasize layering interventions to systematically reduce risk for all road users. Looking ahead, longer-term measures such as curb extensions, protected cycling infrastructure, or lane reallocation may provide more effective and consistent approaches to supporting a safe and multimodal Aberdeen Avenue.

In support of this long-term transformation, Aberdeen Avenue is scheduled for full reconstruction, with work anticipated to begin in 2027. The future design will be guided by Complete Streets principles and will incorporate lessons learned from the pilot and interim improvements. This reconstruction provides a key opportunity to ensure that Aberdeen Avenue functions efficiently and safely for all road users, with particular attention to the needs of vulnerable users such as pedestrians and cyclists.

Alternatives

There are no proposed alternatives related to this report.

Relationship to Council Strategic Priorities

Modernize City systems The recommendations in this report are in direct alignment with Council Priority 2: Safe & Thriving Neighbourhoods, Outcome 2: Make sure people can safely and efficiently move around by foot, bicycle, transit, or car. Enhancing the City's approach to roadway safety by expanding on tools such as detailed in this report is an important aspect of the safe systems approach to roadway safety which directly aids in meeting the goals and objectives of the City's Vision Zero (2019-2025) Action Plan.

Previous Reports Submitted

- [PW17021](#)
- [PW17021a](#)

Consultation

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

- Ward 1 Office
- Hamilton Strategic Road Safety Committee

Appendices and Schedules Attached

Appendix 'A' – Aberdeen Avenue from Queen Street to Longwood Road Supplementary Data

Prepared by: Mike Field, Manager
Public Works, Transportation/Transportation Operations

Submitted and recommended by: Carolyn Ryall, Director
Public Works, Transportation

**Aberdeen Avenue from Queen Street to Longwood Road
Supplementary Data**

1.0 Traffic Operation

- Pilot was implemented on September 24, 2020
- Analysis was conducted along four segments:
 - Aberdeen Avenue (Queen to Dundurn)
 - Beckett Drive (Garth/Fennell to Queen/Aberdeen)
 - Fennell Avenue (Garth to James Mountain)
 - Garth Street (Fennell to Mohawk)
- Data was analyzed for three data periods:
 - P1 - Before the first phase of the COVID-19 pandemic (Feb 2019 – Feb 2020)
 - P2 - During the first phase of COVID-19 pandemic (Mar 2020 – Sep 2020)
 - P3 - During the pilot study period (Sep 2020 – May 2021)
 - P4 - Post Pandemic (Mar 2022 to Apr 2022)
- Analysis was conducted during weekdays morning, mid-day and evening peaks

2.0 Origin and Destination Data

Destination: Aberdeen – Queen ↔ Dundurn

Origin	Avg Daily Vol (P1)	Percent (Total)	Avg Daily Vol (P2)	Percent (Total)	Avg Daily Vol (P3)	Percent (Total)	Avg Daily Vol (P4)	Percent (Total)
403 Ramps	1,588	6%	1,344	6%	1,322	7%	1224	11%
Ward 1	4,678	18%	4,690	19%	3,777	19%	1990	18%
Ward 2	3,384	13%	2,771	12%	2,236	11%	831	8%
Ward 3	556	2%	504	2%	309	2%	129	1%
Ward 4	243	1%	226	1%	190	1%	54	0%
Ward 5	166	1%	161	1%	138	1%	35	0%
Ward 6	805	3%	825	3%	667	3%	289	3%
Ward 7	2,160	8%	2,236	9%	1,898	9%	879	8%
Ward 8	5,085	20%	3,669	15%	3,329	16%	2469	22%
Ward 9	228	1%	202	1%	195	1%	106	1%
Ward 10	60	0%	51	0%	63	0%	22	0%
Ward 11	240	1%	221	1%	149	1%	87	1%
Ward 12	674	3%	581	2%	632	3%	318	3%
Ward 13	643	2%	676	3%	638	3%	206	2%
Ward 14	1,728	7%	1,431	6%	1,071	5%	900	8%
Ward 15	244	1%	144	1%	101	0%	103	1%

External	3,279	13%	4,324	18%	3,574	18%	1444	4%
TOTAL	25,761		24,056		20,289		11,086	

Observations:

- From P1 to P2/P3, the percentage of trips generated from Ward 8 decreased (4-5%) and increased from external origins (5%). Other origins remained relatively equal (1-2%)
- From P1 to P4, the percentage of trips generated from external origins decreased significantly (9%) and increased from 403 ramps (5%). Other origins remained relatively equal (1-2%)

Destination: Beckett Drive – Garth/Fennell

Origin	Avg Daily Vol (P1)	Percent (Total)	Avg Daily Vol (P2)	Percent (Total)	Avg Daily Vol (P3)	Percent (Total)	Avg Daily Vol (P4)	Percent (Total)
403 Ramps	837	3%	506	2%	478	1%	611	4%
Ward 1	6,393	20%	5,859	20%	5,181	16%	2528	17%
Ward 2	4,336	13%	3,389	11%	3,236	10%	1385	9%
Ward 3	556	2%	930	3%	893	3%	217	1%
Ward 4	276	1%	383	1%	250	1%	73	1%
Ward 5	246	1%	248	1%	274	1%	60	0%
Ward 6	906	3%	850	3%	782	2%	425	3%
Ward 7	1,711	5%	1,438	5%	1,492	5%	901	6%
Ward 8	5,863	18%	4,232	14%	3,924	12%	2826	19%
Ward 9	411	1%	360	1%	392	1%	212	1%
Ward 10	82	0%	93	0%	160	0%	27	0%
Ward 11	502	2%	433	1%	361	1%	148	1%
Ward 12	883	3%	713	2%	664	2%	309	2%
Ward 13	573	2%	516	2%	419	1%	201	1%
Ward 14	4,640	14%	4,244	14%	4,167	13%	1726	12%
Ward 15	437	1%	348	1%	255	1%	144	1%
External	4,477	14%	5,304	18%	9,842	30%	2998	9%
TOTAL	33,129		29,846		32,770		14,791	

Observations

- From P1 to P2/P3, the percentage of trips generated from Ward 8 decreased by 4-6% and increased significantly from external origins (8-12%). Other origins remained relatively equal (1-2%)
- From P1 to P4, the percentage of trips generated from Ward 8 increased slightly (1%) and decreased from Ward 14 and external origins. Trips from Ward 1 and 2 also decreased by 3 and 4% respectively. Other origins remained relatively equal (1-2%)

3.0 Speed Data

Segment	Average Segment Speed (km/h)			
	P1	P2	P3	P4
Aberdeen - Queen ↔ Dundurn	31	32	31	33
Beckett - Garth/Fennell ↔ Queen/Aberdeen	44	44	44	41
Fennell - Garth ↔ James Mountain	38	32	33	44
Garth - Fennell ↔ Mohawk	39	34	34	41

Segment	Segment Speed % difference		
	P1-P2	P1-P3	P1-P4
Aberdeen - Queen ↔ Dundurn	3.2%	0.0%	6.3%
Beckett - Garth/Fennell ↔ Queen/Aberdeen	0.0%	0.0%	-7.1%
Fennell - Garth ↔ James Mountain	-17.1%	-14.1%	14.6%
Garth - Fennell ↔ Mohawk	-13.7%	-13.7%	5.0%

Observations:

- Speeds from P1 to P2/P3 stayed the same on Aberdeen / Beckett segments and decreased 5-6 km/h on Fennell / Garth segments
- Speeds from P1 to P4 increased on Aberdeen, Fennell and Garth segments and decreased by 7% on Beckett.

4.0 Travel Time Data

Segment (AM Peak)	Average Segment Duration (secs)			
	P1	P2	P3	P4
Aberdeen - Queen ↔ Dundurn	107	97	104	95
Beckett - Garth/Fennell ↔ Queen/Aberdeen	188	152	160	146
Fennell - Garth ↔ James Mountain	164	152	150	96
Garth - Fennell ↔ Mohawk	162	154	157	111

Segment (AM Peak)	Travel Time % difference		
	P1-P2	P1-P3	P1-P4
Aberdeen - Queen ↔ Dundurn	-9.8%	-2.8%	-11.9%
Beckett - Garth/Fennell ↔ Queen/Aberdeen	-21.2%	-16.1%	-25.1%
Fennell - Garth ↔ James Mountain	-7.6%	-8.9%	-52.3%
Garth - Fennell ↔ Mohawk	-5.1%	-3.1%	-37.4%

Observations

- Travel times from P1 to P2/P3 decreased on all segments with greatest decrease on Beckett (16%)
- Travel times from P1 to P4 decreased significantly on all segments with the greatest decrease on Fennell (52%)

Segment (Mid-Day)	Average Segment Duration (secs)
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	P1	P2	P3	P4
Aberdeen - Queen ↔ Dundurn	107	114	119	89
Beckett - Garth/Fennell ↔ Queen/Aberdeen	166	181	177	129
Fennell - Garth ↔ James Mountain	164	168	168	93
Garth - Fennell ↔ Mohawk	150	174	179	105

Segment (Mid-Day)	Travel Time % difference		
	P1-P2	P1-P3	P1-P4
Aberdeen - Queen ↔ Dundurn	6.3%	10.6%	-18.4%
Beckett - Garth/Fennell ↔ Queen/Aberdeen	8.6%	6.4%	-25.1%
Fennell - Garth ↔ James Mountain	2.4%	2.4%	-55.3%
Garth - Fennell ↔ Mohawk	14.8%	17.6%	-35.3%

Observations:

- Travel times from P1 to P2/P3 increased from on all segments with greatest increase on Garth (18%)
- Travel times from P1 to P4 decreased significantly from on all segments with the greatest decrease on Fennell (55%)

Segment (PM Peak)	Average Segment Duration (secs)			
	P1	P2	P3	P4
Aberdeen - Queen ↔ Dundurn	118	107	114	104
Beckett - Garth/Fennell ↔ Queen/Aberdeen	183	177	184	137
Fennell - Garth ↔ James Mountain	162	173	168	96
Garth - Fennell ↔ Mohawk	159	169	176	110

Segment (PM Peak)	Travel Time % difference		
	P1-P2	P1-P3	P1-P4
Aberdeen - Queen ↔ Dundurn	-9.8%	-3.4%	-12.6%
Beckett - Garth/Fennell ↔ Queen/Aberdeen	-3.3%	0.5%	-28.8%
Fennell - Garth ↔ James Mountain	6.6%	3.6%	-51.2%
Garth - Fennell ↔ Mohawk	6.1%	10.1%	-36.4%

Observations:

- Travel times from P1 to P2/P3 decreased overall on Aberdeen (3%) and increased on Garth and Fennell (10%) segments. Beckett remained the same.
- Travel times from P1 to P4 decreased overall on all segments with the greatest decrease on Fennell (51%)

5.0 Collision Data

Aberdeen Avenue between Queen Street and Dundurn Street (Mid-block)

Period	Total	Fatal	Injury	Property Damage Only	Pedestrian	Cyclist
Before: Sep. 23, 2018 - Sep. 23, 2020 (2 years elapsed time)	9	0	4	5	0	0
After: Jan.01, 2022 - Dec. 31, 2022 (1 year elapsed time)	5	0	0	5	0	0
Post: Jan. 1, 2023 – Aug. 31, 2025 (2 years, 8 months elapsed time)	12	0	1	7	0	0

6.0 On-Street Parking

Aberdeen Avenue from Queen Street to Dundurn Street contains 56 on-street parking spaces in the north side and 32 on-street parking spaces in the south side.

Street Side	Location	# Spaces
North	Queen Street South to Kent Street	16
	Kent Street to Locke Street South	12
	Lock Street South to Dundurn Street South	28
South	Mt Royal Avenue to Beulah Avenue	2
	Beulah Avenue to Cottage Avenue	2
	Cottage Avenue to Mountain Avenue	9
	Mountain Avenue to Undermount Avenue	3
	Undermount Avenue to Fairmount Avenue	4
	Fairmount Avenue to Kent Street	5
	Kent Street to Mapleside Avenue	4
	Mapleside Avenue to Sprucedale Avenue	3

All spaces are available for the public with no cost.

As part of the pilot study, parking utilization studies were conducted on Aberdeen Avenue (between Dundurn Avenue and Queen Street) to observe parking usage and turnover. These studies were conducted during the weekday morning, mid-day, and afternoon peak periods on April 12, 2023 and April 13, 2023. The utilization percent for the three periods is presented in the table below.

	Location		Utilization Percent

Street Side		# Spaces	Morning Peak	Mid-Day	Afternoon Peak
North	Queen Street South to Kent Street	16	50%	69%	50%
	Kent Street to Locke Street South	12	25%	33%	58%
	Lock Street South to Dundurn Street South	28	4%	14%	11%
South	Mt Royal Avenue to Beulah Avenue	2	0%	0%	0%
	Beulah Avenue to Cottage Avenue	2	0%	0%	0%
	Cottage Avenue to Mountain Avenue	9	0%	0%	0%
	Mountain Avenue to Undermount Avenue	3	0%	0%	0%
	Undermount Avenue to Fairmount Avenue	4	0%	0%	0%
	Fairmount Avenue to Kent Street	5	0%	0%	0%
	Kent Street to Mapleside Avenue	4	0%	0%	0%
	Mapleside Avenue to Sprucedale Avenue	3	0%	0%	0%

Observations:

- Queen Street South to Kent Street has maximum utilization period during the mid-day
- No vehicles parked on the south side of Aberdeen during the study periods.
- Vehicles parked between Queen and Kent were mostly concentrated next to #210 Aberdeen Ave. (apartments)
- No observed issues with eastbound traffic during all periods with two lanes available, particularly after Locke Street
- Issues observed with westbound traffic during the AM and PM peaks, with vehicles backing up onto Queen Street due to only one available driving lane and/or drivers driving in the curb lane then cutting over at the last minute.