

# Situating study of student travel safety to and from Bennetto Elementary School

Prepared for  
Bennetto Parent Council

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## Contents

Executive Summary .....	2
Introduction .....	4
Context and research questions .....	4
Background: what is a parent council? .....	5
Methods .....	5
Environmental scan of actors involved in school transit safety .....	5
Literature review of definitions and perceptions of safety .....	6
Findings .....	8
Environmental scan.....	8
Interview Findings .....	19
Literature review findings .....	21
Recommendations .....	26
Leverage community-based research approaches .....	27
Community-based participatory research framework.....	27
Potential partners for involvement.....	27
Explore different ways to gather perspectives .....	28
Foster ongoing collaboration between the City of Hamilton and the parent council ..	30
Prioritize access during recruitment .....	31
Pathways forward.....	32
References .....	33
Appendix: Interview Guide .....	37

# Executive Summary

Bennetto Elementary School is a public school located in the north-end of Hamilton. In September 2024, a student waiting for the school bus was struck by a car and sustained life-altering injuries. This incident highlighted safety risks along the school route, and motivated the Bennetto Elementary School Parent Council to explore ways to improve safe travel for students to and from school.

To better understand these risks and possible solutions, the Parent Council partnered with the McMaster Research Shop to examine school travel safety. The project focused on three research questions: (1) What actors are currently working to address student safety on the school route in Hamilton, (2) What approaches to collecting data on street safety concerns might be useful for a future study? And (3) How might concepts of “safety” differ across individuals, communities, and social identities, especially within the context of school travel? Methods included an environmental scan of actors and a literature review on the social and structural dimensions of safety.

The environmental scan found that Hamilton has several actors engaged in school travel safety, with the City of Hamilton serving as the primary actor by volume and scope of initiatives. Non-profit organizations such as the Daily School Route provide expertise in participatory engagement, mapping, and community audits, offering potential support for research efforts. Existing frameworks, including School Travel Plans and Vision Zero Action Plan, can inform and ground advocacy in future initiatives.

The literature review showed that safety is multidimensional, encompassing physical, social, and emotional components. Perceptions of safety along the school route are influenced by gender, household income, and environmental factors. Parental perceptions of safety in particular shape students’ modes of travel. Intersectional and participatory approaches are essential to capture experiences of safety, as there can be mismatches between how safety looks on paper and how it is experienced. Understanding how the Bennetto community itself defines and perceives safety is a critical gap, as notions of safety are deeply personal and context-specific.

Based on these findings, future research could involve the Parent Council in a variety of roles:

- **Connect.** Reach out to actors like the City of Hamilton, HWSTS, and the Daily School Route to explore whether they can lead or co-lead safety initiatives.
- **Advocate.** Push for the implementation of accessible tools like mapping or photovoice to highlight the lived experiences of students and families.
- **Equity.** Monitor participation in future research to ensure that diverse voices and definitions of “safety” are included.

While the Parent Council likely does not have the capacity to implement a large-scale project independently, collaborating with other actors who share the same goals is a probable way forward. This report does not prescribe a single research method, but rather signals that there is space for future research, providing guidance on approaches and considerations to capture community perspectives effectively.

# Introduction

## Context and research questions

Bennetto Elementary School is a kindergarten to grade eight school located in the north end of Hamilton, ON and has a population of approximately 500 students (HWDSB, 2024a). The Bennetto Elementary School Parent Council supports the safety, well-being, and success of students at the school. In September 2024, a student waiting for the bus was struck by a car and sustained life-altering injuries (Bron and O'Reilly, 2024). This collision occurred approximately one kilometre to the east of the school as shown in the map below (Figure 1):

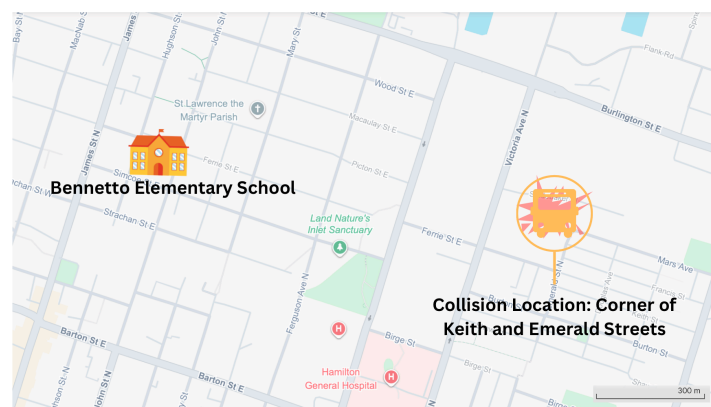


Figure 1. Relation of the collision location to Bennetto Elementary School.

Motivated to prevent future accidents, the Parent Council is seeking to better understand and address safety concerns related to student transportation to and from school. Their hope is that collecting data about safety concerns along the school route could inform targeted interventions to increase safety. However, as a group with limited capacity, they would like to explore potential partnerships for such a study and approaches to collecting data, as well as identify local actors with the authority and resources to implement needed safety interventions.

In the summer of 2025, Bennetto Elementary School Parent Council partnered with the McMaster Research Shop to explore these issues. The primary research questions we aimed to answer are:

- 1. What actors are currently working to address student safety on the school route in Hamilton, ON?**
- 2. What approaches to collecting data on street safety concerns might be useful for a future study?**

Out of concerns for the historical exclusion of marginalized community members from neighbourhood consultation and development efforts, we added a third research question:

### **3. How might concepts of “safety” differ across individuals, communities, and social identities, especially within the context of school travel?**

#### **Background: what is a parent council?**

As required under *Ontario’s Education Act, Regulation 612*, every public school must have a School Council. Its main purpose is to improve student achievement and enhance the accountability of the education system to parents. Responsibilities of a parent council include advising the principal on school-related matters, supporting the school’s successful planning goals, supporting and organizing fundraising events, as well as encouraging parent and community involvement while placing students’ interests first (HWDSB, 2024b).

Parents of enrolled students must comprise the majority of the membership in a parent council, while other members include the principal, a teacher, a non-teaching staff, and at least one community representative. The Chair/Co-chairs must be parent members but cannot be employed by the school board. They are responsible for leading meetings, preparing agendas, overseeing minutes, resolving conflict, and acting as the main liaison with the principal. All members, except the principal, are voting members. Quorum for voting is 50% of voting plus one. Elections for positions are held within the first 30 calendar days of the school year (HWDSB, 2024b).

School councils are advisory bodies, meaning they can make recommendations to the principal or the school board, but they do not have decision-making authority over school operations (HWDSB, 2024b).

## **Methods**

### **Environmental scan of actors involved in school transit safety**

To address the first two research question, we conducted an environmental scan to identify actors active in Hamilton with roles related to student transportation safety. This process used a systematic online Google search with key terms such as “safety”, “elementary”, and “Hamilton” to find relevant groups and their initiatives. The scan focused on government websites, non-profit organizations, and private sector groups. We prioritized programs that target practical and structural factors affecting student safety, as well as those that actively involve community stakeholders such as parents and students.

#### *Inclusion and Exclusion Criteria*

Initiatives were included if at least one implementing actor was Hamilton-based, even if other actors were provincial or national. This approach ensured that we captured actors actively working in Hamilton, while also acknowledging that actors work in multi-level collaborations. Initiatives were included if their primary focus was student safety along the school route, or if there was a clear, perceivable connection to student safety, even if the

initiatives addressed broader road safety objectives for other demographics as well. Initiatives were excluded if they were entirely outside of Hamilton and had no apparent engagement with the local community. We also did not include academic studies that used Hamilton as a study population, as the focus of the scan was on actors actively implementing or supporting interventions, rather than research publications.

For each program or organization discovered through searches, we collected key information, such as:

- **Organization Name:** The primary actors responsible for implementing the initiative, including any partners involved.
- **Initiative Name:** The specific project, program, or initiative.
- **Type of Organization:** Whether the organization is governmental, the school board, non-profit, private firm, or multi-actor partnership.
- **Mission/Focus:** The purpose, objectives and intended outcomes of the initiative, including its focus on student safety.
- **Methodological approaches to collecting community input.** Included approaches to safety assessments, community consultations, and any other ways to gather primary perspectives on local safety issues and priorities.
- **Potential Relevance to Bennetto:** How the initiative could inform or be adapted for future research at Bennetto Elementary School.

Much of the information we were able to glean from websites and organizational documents. As the City of Hamilton was involved in many initiatives, we reached out for an interview to ensure a more comprehensive understanding of information that may not be readily available online. The interview explored current safety initiatives, challenges in implementation, and the potential for adapting strategies to the to the Bennetto context (see Appendix A for the interview guide). We further sought to interview the Hamilton Wentworth Student Transportation Services (HWSTS) to gain perspectives on safety from a vehicular perspective, however, we were not able to conduct an interview prior to the project's completion; questions we would have wished to ask are included in the interview guide.

This comprehensive scan helped map the existing network of actors involved in school transportation safety and approaches they use to plan and implement safety initiatives.

## Literature review of definitions and perceptions of safety

This research project has some limitations that may affect the generalizability and accuracy of its findings. Teachers who opted to participate in the interviews may have had stronger opinions about coding in the curriculum, potentially causing selection bias. Reliance on self-reported information also introduces potential bias. Participants' views on their comfort, confidence, and resource utilization may not accurately represent their true classroom practices or effectiveness. Moreover, comfort and effectiveness assessments lack objective validation, and the open-ended feedback, though valuable, was extremely limited in quantity, making it hard to draw generalizable conclusions.

While the survey sought to evaluate the effectiveness of different coding resources, varying levels of resource usage complicates the ability to make definitive statements about which tools are most advantageous.

Finally, only three teachers from the HWCDSB completed the survey, compared to 28 teachers from the HWDSB. This extremely small sample size could not stand alone as representative of the school board; rather, we examined those three responses qualitatively, looking at any patterns of insights that might help allude to the range of responses between the two boards. The ensuing analysis can therefore only be said to be accurate for the HWDSB.



# Findings

## Environmental scan

This section presents an overview of actors currently working to address student safety along school routes in Hamilton, with a focus on their roles, responsibilities and potential impact on the Bennetto neighbourhood. Actors include municipal authorities, school boards, police services, nonprofit organizations, provincial or and multi-level partners. These actors implement programs, policies, and interventions designed to reduce risks for students travelling to and from school. Subheadings group initiatives by the organization primarily responsible for driving or coordinating the initiative.

1. **Municipal Government:** City of Hamilton. City-led traffic safety and infrastructure initiatives.
2. **School Boards & Student Transportation:** Programs and plans delivered by Hamilton Wentworth District School Board (HWDSB), Hamilton Wentworth Catholic District School Board (HWDSB), and associated transportation services.
3. **Nonprofit/Advocacy Partners:** Community-led initiatives and programs promoting safe and active school travel.
4. **Multi-level/Provincial & Federal Partnerships:** Broader initiatives and funding streams that support local school travel programs.

Each row lists the initiative name, supporting organizations (actors), type of organization, location or scope, mission/focus, methodological approaches to engage the community, and a final column describing relevance or potential application for the Bennetto neighbourhood.

1. Municipal Government – City of Hamilton-led					
Initiative Name	Organization Name(s)	Type of Organization	Mission/Focus	Methodological approaches to engaging the community in safety assessment and response	Potential Relevance to Bennetto

<a href="#"><u>Neighbourhood Speed Limit Reduction Strategy</u></a>	City of Hamilton	Municipal Government	Reducing speed limits in 212 neighbourhoods / school zones in Hamilton. Neighbourhood streets reduced to 40 km/hr and school zones reduced to 30 km/hr	City received 700+ requests annually from residents concerned with speeding and dangerous driving on residential roads. Broad reductions meet needs more efficiently.	Has led to safer speed limits near Bennetto.
<a href="#"><u>Crossing Guard recruitment</u></a>	City of Hamilton	Municipal Government	Continuously recruiting and positioning crossing guards in school zones. Approx. 250 school crossing guard locations throughout Hamilton.	Community members can request a survey of a location that they feel would benefit from a crossing guard.	Could support pedestrian safety near Bennetto if a lack of crossing guards is a safety concern.
<a href="#"><u>Automated Speed Enforcement</u></a>	City of Hamilton	Municipal Government	Automated system that uses a camera and speed measurement device to enforce speed limits. Can only be used in school and community safety zones. Currently 4 in use across the city.	Clear signage posted where a system is in place and active.	Could be deployed near Bennetto in the future (no active plans).
<a href="#"><u>Dynamic Speed Signs</u></a>	City of Hamilton	Municipal Government	Radar and LED display a speed to motorists to remind	People can report issues and	Could seek the installation near Bennetto if vehicular

			them of speed. Functions as an educational tool only (no enforcement for speeding).	request new sign installation.	speed is a safety concerns.
<a href="#"><u>Community Safety Zones</u></a>	City of Hamilton	Municipal Government	Encourage slower speeds and improve pedestrian safety by designating high risk stretches of road with provincially legislated signage that allows doubling of fines associated with speeding. Areas with high numbers of children playing near or crossing streets are factoring into selection.	Education campaigns meant to engage with citizens on topics related to road safety. One free lawn sign asking drivers to slow down are available to residents of Hamilton. Selection of zones based in part on safety and speeding complaints.	Has led to some areas near Bennetto being labelled as a safety zone. More areas could be labelled in the future.
<a href="#"><u>Active and Sustainable School Travel (ASST) Messaging Toolkit</u></a>	City of Hamilton (including) Hamilton Public Health Services)	Municipal Government	This toolkit is intended to support active and sustainable travel messaging at schools. Contains resources for newsletters, social media, website, and electronic message boards.	None located.	Resources potentially of use for Bennetto communications.

<a href="#"><u>Advocacy and support of 'Drive to 5' (part of City ASST)</u></a>	City of Hamilton (including Hamilton Public Health Services)	Municipal Government	Encourages families park 5 mins away, walk to school Traffic congestion makes it hard to see students, risking their safety,	None located.	Could be employed/advocated for to attempt address vehicular drop-off safety issues.
<a href="#"><u>Special Enforcement Areas (ongoing)</u></a>	City of Hamilton (specifically: Sustainable Mobility team, Public Health, Parking Operations)	Municipal Government	Goal of increasing parking regulation compliance (e.g. no stopping zones where high concentration of students crossing the street) in order to improve children's safety. Parking fines are increased to \$250	None located.	Could seek to request enforcement if parking non-compliance is a safety concern.
<a href="#"><u>School Streets Feasibility Study (2024, Strathcona Elementary)</u></a>	<ul style="list-style-type: none"> <li>City of Hamilton</li> <li>Hamilton Wentworth District Schoolboard</li> <li>Strathcona Elementary School</li> </ul>	Municipal Government, School Board, and School	Pilot at Strathcona that City is looking at gradually implementing at more schools. Opens a stretch of roadway to people, while closing it to vehicles at a school site for drop-off and pick-up times.	Neighborhood discussions, electronic poster distribution, online surveys, student poster boards (place sticker to indicate feeling of safety etc.), sustained social media campaigning	Model that could be advocated for pilot at Bennetto. Approaches to engaging the community could be of use to further research on safety.
<a href="#"><u>Ainslie Wood Traffic</u></a>	<ul style="list-style-type: none"> <li>City of Hamilton</li> </ul>	Municipal Government, Private Firm	WOOD retained by City of Hamilton to create a report about	Public consultation centres held for	Approaches to engaging the community could be

<a href="#"><u>Management Review (2019)</u></a>	<ul style="list-style-type: none"> <li>Wood Environment &amp; Infrastructure Solutions (WOOD)</li> </ul>		traffic and city planning in Ainslie Wood neighbourhood. Noted that many streets had vehicles travelling faster than the speed limit in school zone and proposed speed monitoring.	residents to offer input	of use to further research on safety.
<a href="#"><u>School Site Design Guidelines for Active &amp; Sustainable Transportation (2022)</u></a>	<ul style="list-style-type: none"> <li>City of Hamilton</li> <li>IBI Group</li> </ul>	Municipal Government, Private Firm	A report prepared with information and recommendations about safe school site design. Identified perceived safety concerns as a key barrier to active school travel.	City hosted workshops and forums to inform the creation of this report	Guidelines that could be referenced in site enhancements.
<a href="#"><u>City of Hamilton Transportation Master Plan (2018 review and update of 2007 Plan)</u></a>	City of Hamilton	Municipal Government	Update of the city's Master Transportation Plan in 2018 that includes a review of the safety initiatives that have been launched. Provides a comprehensive and attainable transportation blueprint for Hamilton that	Newspaper advertisements, Public Information Centres (PICs), online surveys, a webpage, social media, an information booth/kiosk at numerous City-wide festivals and events, and	Provides a framework that could be reviewed to guide and situate Bennetto initiatives.

			balances all modes of transportation to become a healthier city.	speaking engagements	
<a href="#"><u>Complete Streets Design Reports for Wards and Design Guidelines (below the Transportation Master Plan on Hierarchy)</u></a>	<ul style="list-style-type: none"> <li>City of Hamilton</li> <li>WSP Canada Inc.</li> </ul>	Municipal Government, Private Firm	Roadways that are planned and designed to balance the needs of all road users. Goal is to allow people to get around safely no matter their age, ability, or how they choose to move. Reports are currently being created for Wards, 8, 14, and 3. This includes designing areas for children and ensuring their needs are not overlooked.	Calls for early engagement with communities, especially in communities with a high proportion of equity-deserving groups.	If a Complete Streets Report was undertaken for Bennetto's ward, would provide area-tailored solutions that could improve safety for all road users.
<a href="#"><u>Hamilton Strategic Road Safety Program and Vision Zero Action Plan (2019)</u></a>	City Of Hamilton (Hamilton Public Health Services, the Ministry of Transportation Road Safety Marketing Division)	Municipal Government	A road safety program to address transportation related injuries and fatalities, with a Vision Zero approach: reducing traffic-related serious injuries and fatalities toward zero.	Vision Zero workshops were held to engage the community. Invitees helped define challenges and opportunities related to road safety in the City of Hamilton.	Citywide framework that could be used to support and align any initiatives that Bennetto develops.

## 2. School Boards and Student Transportation

<a href="#"><u>Active and Sustainable School Travel (ASST) Charters (2015)</u></a>	<ul style="list-style-type: none"> <li>City of Hamilton</li> <li>HWDSB</li> <li>HWDCSB</li> </ul>	Municipal Government, School Board Partnership	Charters signed by city of Hamilton and the two school boards describing a long-term commitment to providing support, resources, and training on ASST	Calls for conducting neighborhood walkabouts to audit and identify personal security concerns and participation in local, regional, and international events that encourage active transportation	Shows a commitment from HWDSB to support any safety work that Bennetto does related to active school travel.
<a href="#"><u>HWSTS Safety Programs (e.g. First Rider (orientation for JK/SK on bus safety), Safe Rider (elementary-based program), School Bus Safety Week, annual training for drivers)</u></a>	Hamilton-Wentworth Student Transportation Services (HWSTS)	School Board Partnership	The provision of Safe, Effective and Efficient student transportation services for HWDSB and HWDCSB students	Reviews school bus stop locations in response to parental concerns (e.g. traffic speed, lack of sidewalks). Transportation officers assess reported stop safety and determine if changes are warranted.	A contact for Bennetto for safety concerns related to bus transportation to and from school.
<a href="#"><u>School Travel Plans (as of 2023)</u></a>	<ul style="list-style-type: none"> <li>HWDSB</li> <li>HWDCSB</li> <li>City of Hamilton</li> </ul>	School Boards, Municipal Government	113 out of 134 elementary schools in Hamilton have school travel plans	Involves data collection at the individual school level. Seeks to	Confirm if this has been completed for Bennetto.

			that focus on school infrastructure improvements, education, community mobilization encouragement and engineering improvements around school sites.	understand barriers. Focus on community mobilization to improve the areas around school sites.	
<b>3. Nonprofit/Community Partners</b>					
<a href="#"><u>Daily School Route</u></a>	<ul style="list-style-type: none"> <li>• Bike for Mike</li> <li>• Civicplan</li> <li>• *works and collaborates with the City of Hamilton</li> </ul>	Non-Profit and Community Planning Firm	Vision is to make a 2km radius around a school that is safe enough for kids to safely walk or wheel to/from school. Provides tools, expertise and strategies to help develop routes-to-school programs. Has initiated reviews in wards 1, 10, 9 of student travel behaviour and current routes to school. Routes are identified along with safety concerns that accompany them. Improvements are	5 stage community engagement process including school and parent consultations, surveys, walkabouts, student-led projects, neighbourhood audits, mapping, and implementation of safety improvements like wayfinding signage	A key, local partner to consult with for future research in this area, given an alignment with Bennetto's goals.



			proposed to facilitate safer travel.		
<a href="#"><u>Accessible Transit Advocacy (ongoing)</u></a>	Disability Justice Network of Ontario	Non-Profit Organization	Building accessibility in Ontario for disabled people to have personal and political agency. Has worked on projects in the Hamilton community.	Advocacy campaigns.	Could be consulted for support to ensure that any future research is accessible to students with disabilities and grounded in an intersectional framework.
<b>4. Multi-level/Provincial and National Partnerships (Hamilton Component Only)</b>					
<a href="#"><u>CAA School Safety Patrol (annual, ongoing)</u></a>	CAA, HWDSB, Hamilton Police Services, HWCSDB	NGO + Municipal Police, School Boards	Train student patrollers to help promote leadership in road safety. Approx. 60 schools in Hamilton participate in a year.	Schools opt in; community partnership	Bennetto could opt-in to this program if not already done to help foster leadership in road safety among students
<a href="#"><u>Transportation Tomorrow Survey (2022)</u></a>	Funded by the City of Hamilton (various Municipalities in Ontario, Metrolinx, Ministry of Transportation of Ontario, Toronto Transit Commission), conducted by	Municipal Government, Provincial Transit Agency, Provincial Government Ministry, Municipal Transit Agency, and	A survey completed approx. every 5 years (last completed in 2022) with statistics about how individuals in each ward move / use transport, including school age children	Household travel survey engaging residents; data informs transportation and safety planning	Data from this survey could provide Ward specific data on travel patterns experienced by students.

	research firm R.A. Malatest & Associates Limited.	Private Research Firm			
<a href="#"><u>Ontario Active School Travel funding (2018)</u></a>	<ul style="list-style-type: none"> <li>• City of Hamilton</li> <li>• HWDSB</li> <li>• HWDCSB</li> <li>• Green Communities Canada (funding)</li> <li>• Government of Ontario (funding)</li> </ul>	Municipal Government, School Boards, Non-Profit Organization, Provincial Government	Funding to increase City's ability to deliver school travel plans to more elementary schools. School Travel Plans collect information about how students get to and from school and what barriers exist for students to use active transit. School and community organizations work together to develop an action planning plan to reduce barriers.	Involves data collection at the individual school level. Seeks to understand barriers. Focus on community mobilization to improve the areas around school sites.	Supports resource development for Bennetto school travel planning
<a href="#"><u>School Streets Pilot (Hamilton Component) 2022</u></a>	<ul style="list-style-type: none"> <li>• 8 80 Cities</li> <li>• Green Communities Canada (Ontario Active School Travel)</li> <li>• Government of Ontario</li> </ul>	Non-Profit Organizations, Provincial government, Municipal government	Predecessor to Hamilton's further implementation at Strathcona.	See School Streets Feasibility Study (2024, Strathcona Elementary) above for more info.	See School Streets Feasibility Study (2024, Strathcona Elementary) above for more info.

	<ul style="list-style-type: none"> <li>City of Hamilton</li> </ul>				
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### *Key Takeaways*

The environmental scan demonstrates that there are several actors in Hamilton directly and indirectly engaged with safety along the school route. Many partnerships have formed between municipal departments, school boards, community organizations and other stakeholders. Among these, the City of Hamilton appears to emerge as the primary actor, given its breadth of initiatives and authority to implement changes.

#### First Considerations:

- The City of Hamilton likely has the strongest capacity to respond directly to any safety concerns, particularly those related to active school travel and overall safety within Bennetto's vicinity.
- HWSTS serves as the primary actor for school bus transportation safety across Hamilton. They respond to parental concerns about unsafe bus stops and broader transport-related safety issues beyond the immediate school area, ensuring students travel safely from the bus stop to school and back home.

#### Partnership Opportunities:

- Local organizations such as The Daily School Route bring immense experience with surveys, mapping, and community audits, making them a natural contact point for any future research Bennetto seeks to undertake in this area.
  - Their existing collaborations with the City of Hamilton further enhance their capacity to support safety studies and community engagement efforts.

#### Frameworks and Data for Advocacy

- City-level policies and reports – including the Vision Zero Action Plan, School Travel plan, and the Transportation Tomorrow Survey – provide evidence and alignment with municipal priorities. These resources can guide and strengthen advocacy efforts, helping to situate future initiatives within broader city-level safety frameworks.

## Interview Findings

The interview with the City of Hamilton highlighted ongoing efforts to develop long-term active, safe, and sustainable school travel initiatives at Bennetto Elementary and across Hamilton. Staff discussed both current projects and planned infrastructure changes.

### 1. Current Initiatives and Roles

The City of Hamilton is heavily involved in school travel planning, especially as it relates to active school travel. Interventions include reduced speed limits around schools, multi-use paths, new crosswalks, traffic calming measures. There is also strong interdepartmental collaboration; the transportation planning department frequently works with public health to promote active school travel.

Many elementary schools in Hamilton have a school travel plan – a community-based plan that identifies how students currently travel, the barriers they face, and actions to make active transit more appealing – though some plans are outdated.

Notable relevant initiatives to Bennetto include:

- A School Streets Feasibility Study (Orr et al., 2024).
  - Explored the potential of a vehicle-free street alongside a school during drop-off and pick-up hours at Strathcona Elementary School.
  - Bennetto Elementary School was considered for a pilot project but there were other schools in the area that were deemed better suited at the time
- Keith Neighbourhood Infrastructure Enhancements (Upcoming)
  - The planned installation of two signalized pedestrian crossings: one at Victoria Avenue North/Ferrie Street East, and another at Wellington Street North/Simcoe Street East.
  - These crossings are intended to provide safer access for students from the Keith neighbourhood, who currently face barriers walking to Bennetto, particularly due to the need to cross wide arterial roads and nearby active rail lines. Although framed as being designed for Bennetto students, these changes will also benefit the broader community.
  - Details on the extent of community engagement that occurred for this pathway are unknown, but residents in the area did express their desire to use active transportation for their children to get to school
  - Implementation of this project is scheduled to begin in 2026 once costing is confirmed. The Keith Neighbourhood was also the site of the recent student injury while waiting for the bus. Interestingly, the City also commented that students in this area are currently provided bussing not because of distance, but rather because unsafe streets made walking impractical. With new crossings in place, it is expected bussing service could eventually be rescinded. While this transit nuance is outside the scope of the report, this is a trend that Parent Council may wish to monitor.

## **2. Community Engagement & Data Collection.**

The City employs multiple methods to collect data on student travel:

- “Hands-up” surveys in classrooms. Students indicate their mode of travel in class by raising their hand. It was noted that this can be challenging to coordinate among several classrooms within schools and usually represent only one day of data.
- Video-based data collection in the streets surrounding the school. This can track things like travel mode, age category, near-misses, and whether crossings are used properly. This supports more consistent and objective tracking measures.
- School-Initiated Contact. Schools often reach out for support from the City. Public health nurses can provide support on a numerous number of items, including Active School Travel Plans. Further, there are targeted schools identified as equity priorities, who receive regular public health nurse support.
  - Programs follow the Five Es framework: Education, Encouragement, Engineering, Enforcement, Evaluation. Equity can be considered a sixth “E”.

## **3. Challenges Identified in Creating Successful Initiatives/Making Change.**

- Parental driving habits. Car dependency contributes to congestion and safety concerns. While Bennetto is not deemed to be among the most congested schools in the city, it still faces challenges.
- Scheduling and childcare barriers. Late elementary school start times (9-9:15 am) mean many parents drive their children to school before heading to work.
  - School schedules and supervision arrangements could probably be better suited to support active travel along the school route, however, this is outside of the City’s jurisdiction.
- Crossing guard shortages. Limited staffing reduces the City’s ability to assign guards to new locations, even when there is a demonstrated need.

### *Interview Key Takeaways*

- The City leads multiple initiatives and collaborates with other groups to improve school travel safety, including infrastructure updates and pilot programs.
  - Equity is considered when planning, with some school prioritized for support based on community needs.
- Major sources of data include classroom surveys and video monitoring, but these methods have limitations.

- Significant upcoming changes near Bennetto (two new signalized crossings in the Keith neighbourhood) are expected to improve school travel safety and may eventually reduce bussing service in the area.
  - Notably, some Parent Council members were unaware of this initiative, perhaps pointing to gaps in communication among parties.

## Literature review findings

### *PART A: Understanding Safety: What Research and Local Voices Tell Us*

Safety is often conflated with physical protection, such as being safe from harm or violence. However, feeling safe is also biological, emotional, and social.

People are thought to use a variety of information to inform a perception of safety:

- Slavich's *Social Safety Theory* explains that having **strong social connections (friends, family, community, etc.) is a basic human need**. Threats like exclusion, rejection, and conflict with others can trigger physiological stress responses in the body, which negatively impact both mental and physical health (Slavich, 2020).
- One multidimensional model identified three key aspects of personal safety: a **general feeling of security in daily life, a fear of crime, and confidence in one's ability to stay safe**. (Syropoulos et al., 2005).
- Social dynamics also play an important role. **Perceptions of safety are influenced by group norms and interactions with others**. How people behave in public spaces or how much they trust community institutions can significantly affect how safe others feel (Qi et al., 2024). When institutions fail to acknowledge the real-life concerns of certain groups, it can lead to distrust and diminished feelings of safety.
- Safety is shaped by identity and environment. Intersectional research has shown that **categories like race, gender, age, and class combine with physical surroundings to shape how people experience (un)safety**. For example, children and teenagers often link safety to familiarity or belonging, and their experiences in public and private spaces can be different from those of adults. (Harden, 2000; van der Burgt, 2013).
  - **Safety is tied to power**. Some individuals are routinely stereotyped as dangerous, while others are viewed as vulnerable. The "white-male effect" posits that white men tend to perceive risks as less threatening compared to women and racialized groups, perhaps explained by identity protective cognition – where people interpret risks in a way that maintains their social standing (Kahan et al., 2007).

These **themes from the literature also reflect what is happening in the Hamilton community**. In March 2025, YWCA Hamilton completed a Gender-Based Safety Audit,

speaking with women and gender-diverse people across the city about what makes them feel safe – or unsafe in their everyday lives. The findings confirm existing research:

- Safety is personal. People feel (un)safe for different reasons.
- Community care matters. People feel safer when they are included and connected to others.
- **Safety is more than policing.** Safety includes access to housing, health care, safe public spaces, clean streets, working lights, and accessible sidewalks and bus stops.
- **Systemic barriers make people feel unsafe.** Poverty, racism, and discrimination are all direct threats to personal safety.
- As one participant shared: “safety is the feeling of having the freedom to do your routines and life without fears.”

Importantly, the GBSA took a strengths-based, system-level approach, moving beyond antiquated models that put the onus on individuals for their perceived (un)safety (YWCA Hamilton, 2025).

#### *PART B: Concepts of Safety as Applied to School Travel*

Findings on Gender. Research on gender differences in active school travel (AST) **presents mixed findings**, but these differences are often explained by parental safety concerns rather than children’s preferences:

- Guliani et al. (2015) focused on gendered parental perceptions of safety for their children and found **parents view risks differently for boys and girls.**
  - Heavy traffic around school was seen as a bigger risk for boys.
  - Major road crossings were seen as a bigger risk for girls.
  - Overall, **parents’ safety concerns tended to more strongly affect (and limit) girls walking to school than boys.** This could be related to stronger parental control over girls’ behaviours than boys.
  - Suggested **gender-aware policy and programming interventions.**
- Larsen et al.’s (2013) analysis focused on environmental factors and their influence on safety. They found that more environmental factors affected choice of AST to school than from, **suggesting that a different set of conditions influence choice of AST to and from school.**
  - Suggested **interventions related to the built environment.**
  - Noted an incongruence between objective measures of the built environment (e.g., number of major street crossings on route, maximum traffic, number of areas with no sidewalk, etc.) and participants’ subjective perceptions of the same built environment; **a street may look safe on paper, but still feel unsafe to families.**

Intersectional Findings Related to Gender and Income. Guliani et al. (2015) found that income and gender can work together to shape school travel. Certain variables (e.g., neighborhood level house income) affected male and female students differently.

- In **higher-income neighbourhoods, boys were more likely to walk to school** than in lower-income neighbourhoods, potentially reflecting parents' comfort with route safety, while girls' travel appeared to be less affected by income.

Findings on SES. Research also shows that family income and resources play a role in AST choices, potentially because safety concerns interact with household capacity.

- Larsen et al. (2013) found **that the higher the household income, the less likely a child would use AST** on the way home from school.
  - Possible reasons included: Higher-income families may have only one parent working or have more flexible work schedules, meaning more availability to drive their child.
- Similarly, Guliani et al.'s (2015) found that **the more cars a household had, the less likely children were to use AST**.
- SES is not just a logistical factor; it shapes children's exposure to and protection from potentially unsafe routes.

Findings on Parental Perceptions. Much of the current literature on factors influencing children's school travel choices emphasizes the **significant role of parental safety perceptions** in shaping whether children adopt forms of AST. Parents are concerned about both personal safety and road safety.

- Vasey et al. (2022) defined an overarching program theory (see Figure 2 below) that illustrates the various factors influencing children's engagement in AST, emphasizing the critical role that parental-decision making processes hold. While children's motivation to engage in AST is often driven by factors such as fun and pride, **parental perceptions of neighborhood safety can either encourage or limit whether children adopt forms of AST**.



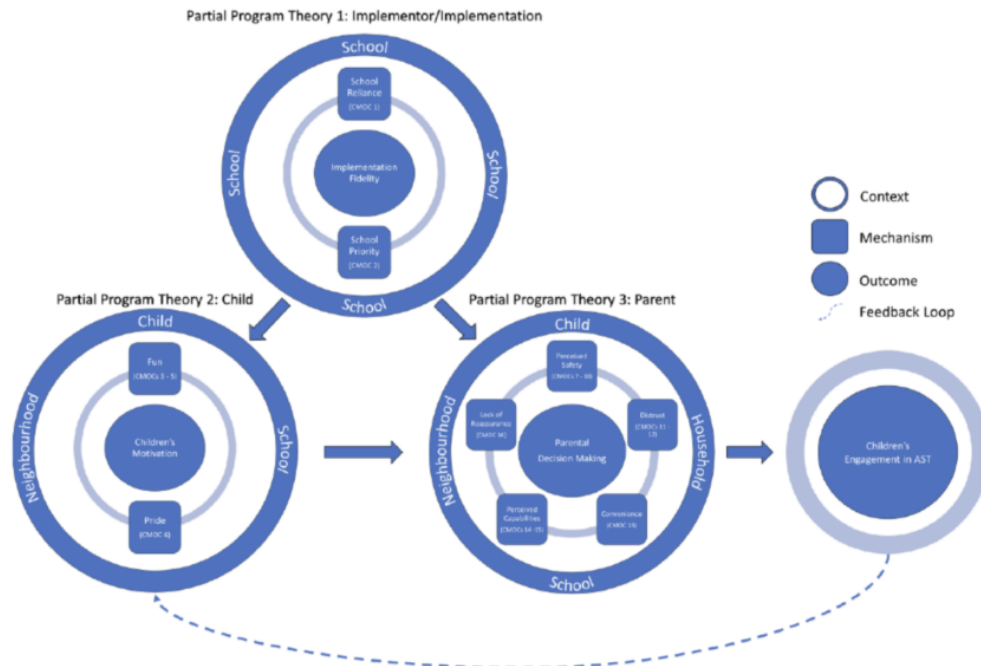


Figure 2: AST Uptake Model proposed by Vasey et al., 2022 showing the key role that parental perceptions of safety play in their child's mode of transit to school.

- When **parents perceived their child's route or neighborhood as safer, children were 5.2 times more likely to walk or bike to school** (Panter et al., 2008).
- Panter et al. (2008) developed a different framework highlighting the influence of parental perceptions, **suggesting that individual factors, the physical environment, and broader external influences all interact to shape decisions around the mode of travel** adopted by youth. Importantly, age, gender, and distance to the destination serve as key moderating variables that influence how these factors affect the final travel choice (See Figure 3 below). For example, parental perceptions of safety have a stronger influence on younger children's travel choices, whereas this influence tends to diminish during adolescence.

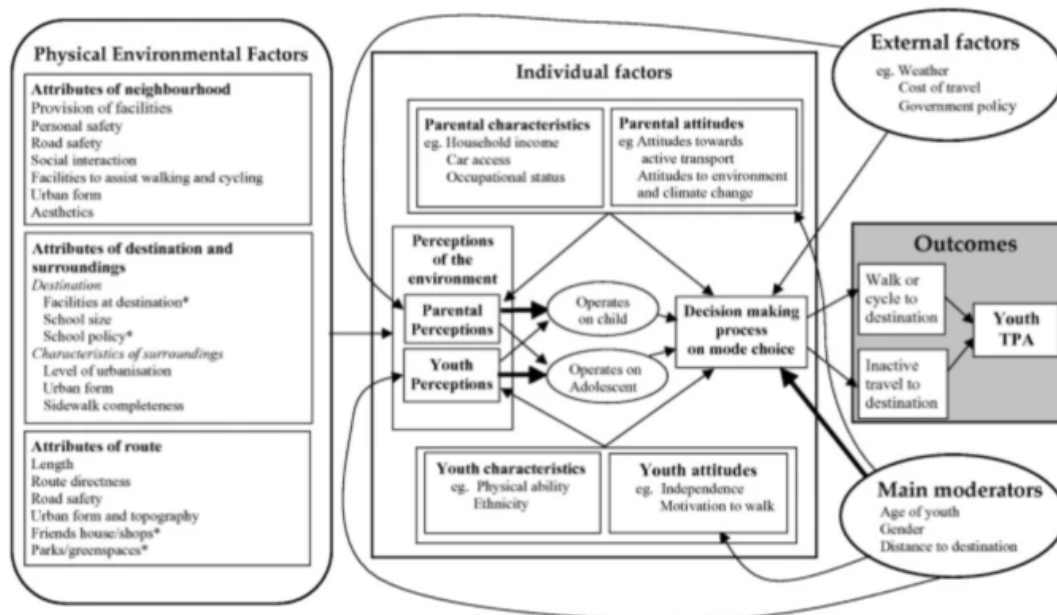


Figure 3. A conceptual framework for the environmental determinants of active travel in children, including personal safety, road safety, urban form, and road safety. TPA = Transport-related Physical Activity (from Panter, 2008).

Findings on Adolescent Perceptions. While most studies emphasize that parents are the primary ones who perceive road safety as a barrier to AST, there have been a few studies that highlight the influence of adolescent's perceptions of safety on their use of AST.

- Swain et al. (2024) found that both parents and children expressed wanting safer active transport infrastructure to encourage greater AST. Safer road crossings, more walkways and bike paths, and better connectivity between routes were commonly cited by both groups as important improvements to support greater use of AST.

### Key Takeaways

- Safety is not one-size-fits all. How safe a child feels depends on who they are, where they are, and the broader social and structural systems around them.
- Safety is multidimensional, involving social, emotional, and structural aspects. To understand and address disparities, the full picture needs to be considered.
- Intersectional factors play a role. Gender, income, and other social factors can combine in ways that affect how children commute to and from school. Recognizing and exploring these patterns helps to predict and support school transit options more accurately.

- Parental perceptions of risk are often the key determinant of travel decisions, especially when resources (such as access to cars, or time) are not a limiting factor. This influence can be stronger for girls than boys.
- There can be a mismatch between how safe environments look on paper, and how safe they feel to families. Objective measures of infrastructure may not capture real experiences of risk.
- Holistic and participatory approaches are essential. Involving the community in planning and safety decisions can ensure that solutions reflect the needs of the school.

## Recommendations

This report highlights that the Bennetto Elementary School Parent Council has an opportunity to strengthen student safety along the school route. In Hamilton, several actors have the expertise and resources to address these issues, yet Bennetto families' own definitions of "safety" remain underexplored. Future efforts should focus on approaches that amplify community perspectives, foster collaboration, and ensure equity in participation.

It is necessary that selected research methods are appropriate for capturing the input of diverse community members. For example, the present work concerns elementary school aged children, which implies variety in levels of understanding of abstract concepts and comfort communicating verbally. Therefore, research methods should be employed that anticipate variety in the sample and seek to capture their perspectives in creative ways (Darbyshire et al., 2005).

Considering this, we make the following four recommendations which will be explored in more detail below:

1. Leverage community-based research approaches;
2. Explore different ways to gather perspectives;
3. Foster ongoing collaboration between the City of Hamilton and the Parent Council;
4. Prioritize access during recruitment.

## Leverage community-based research approaches

As seen from the literature review, the built environment (e.g. roads, sidewalks, crosswalks where children travel) plays a large role in shaping safety. However, infrastructure is not always designed with children in mind, and families face unequal access to safe travel options. Future research that employs a community-based participatory approach can help ensure that the voices of students, families, and local stakeholders guide safety interventions that address real barriers to safe school transit. This collaborative approach strengthens relevance, trust, and sustainability of solutions (McCullogh et al., 2023).

## Community-based participatory research framework

A project led by the Parent Council could adopt this framework to foster equitable partnerships among students, parents, school staff, and local stakeholders. Community members would act as co-researchers, contributing knowledge and identifying safety concerns. Shared leadership, capacity building, and ongoing reflection can increase responsiveness and impact (Oetzel et al., 2022). Successful examples from Hamilton:

- [Strathcona Elementary School Safe Streets Feasibility study](#) (Orr et al., 2024). This project prioritized prolonged engagement with the school community (students, families, school principal and staff) via consistent communications (e.g., electronic and physical flyers explaining the study and inviting questions), social media engagement, and data collection methods specifically inclusive of children (e.g., sticker poster board surveys).
  - This engagement resulted in better integration of community interests into the research, manifesting in facets of the School Street implementation being carried out by the community (e.g., School Council carried out the street activation).
- Ainslie Wood Neighbourhood Traffic Management Study (2019). Community meetings held partway through the project, allowed residents to provide feedback and shape the direction of research.

Community participation in these project, increased community understanding and buy-in, led to more diverse stakeholder input and, created high specificity in concerns raised, which aided in solution design.

## Potential partners for involvement

Several organizations already have expertise and capacity in school travel safety. The Parent Council can initiate conversations with actors to explore whether they could lead or support future initiatives. For example:

- City of Hamilton: Planning expertise, access to municipal data, guidance on feasibility, and alignment with existing programs.

- The Daily School Route: Expertise in participatory engagement, mapping, walkabouts, and surveys.
- HWSTS: Guidance on bus stops, routing, and bus transportation logistics.
- Bennetto Parent Council and School community: Local knowledge, community priorities, and direct engagement with students and families.

## Explore different ways to gather perspectives

Community-engaged research can use a variety of tools to include a range of perspectives. Some examples that may be of use to a future research endeavour are presented below.

**Focus Groups.** Small group conversations allow participants to raise concerns in detail and lead the discussion toward pointers that matter most to them (Phoenix et al., 2017).

- More cost-efficient than individual interviews and invites more perspectives (Peek and Fothergill, 2009).

**Community Information Centres.** Public spaces where residents both provide input and learn about City planning initiatives. These are related to focus groups, as there is data collection in a group setting. These were used successfully in the Ainslie Wood traffic management report.

**Visual Methods.** Techniques such as mapping, photovoice, or photo elicitation are considered accessible to children and can reveal safety concerns in ways that words alone may not.

**Mapping.** A method where participants mark or draw their routes and points of interest on a map.

- Previous studies of active school travel have used visual mapping (Larsen et al., 2013) to link children's perceptions of safety to specific spots along their travel route.
- Mapping has the benefit of being more accessible to elementary school-aged children and can make it easier for them to communicate than more verbal-dominant methods such as interviews (Blades et al., 1998).
- For example:
  - Children and families could show the path they take to school and highlight areas where they feel safe and unsafe using stickers, markers, or symbols.
  - Can account for and include different travel modes (walking, biking, school bus, city bus, driving).

- Potential to mark different age groups and genders and differentiate between the route to and from school; as seen in the literature, these can all produce different safety perceptions.
- Helps identify hot spots of concern that Parent Council could use to advocate for change

**Photovoice.** In photovoice, participants are asked to take pictures that document and communicate issues of concern in ways that stimulate dialogue (Wang and Buris, 1997).

- The photovoice method is one way for researchers to engage communities in attempts to understand the hidden issues at play.
- Previous studies about active school transport have used photovoice to:
  - Confirm shared road safety concerns at specific spots in a neighbourhood.
  - Further probe discrepancies previously noted in the literature between perceptions and objective measures of a built environment's suitability for transport (Hennessy et al., 2010).
- For example:
  - Students (and parents) could carry a camera on their way to and from school to photograph areas or things that make them feel unsafe.
  - Photos could become a discussion tool, helping students (or the broader school community) explain why a location feels unsafe.
  - Allows participants to communicate visually, which can be easier for children or for people who struggle with verbal expression.

**Photo Elicitation.** A method where participants are shown photos selected by the researcher (Sebastiao et al., 2016) or asked to take photos (Fleury et al., 2009; Sawyer et al., 2018) that they feel capture a particular facet of the issue at hand. This is complemented by a method that allows them to reflect on the photo (e.g., commentary, interview).

- Can spark memories, observations, and opinions that may not come up in normal conversations.
- Although the literature review did not find studies that have used photo elicitation to explore active school travel, a study by used photo elicitation-based interviews to explore environmental barriers to outdoor physical activity. It allowed participants to explore complex relationships between public space, motivation, and their conceptions of a healthy environment. These are resonant concerns in active school travel, suggesting that photo elicitation could fruitfully be applied to exploring this problem (Sawyer et al., 2018).
- For example:

- Students (and parents) could be presented with images of a crosswalk, bus stop, and various intersections around Bennetto and asked to share how safe they feel in that space.

Utility of Triangulation in Methodology. Triangulation refers to the use of multiple methods, data sources, or perspectives within a single study to enhance the depth, credibility, and validity of findings.

- Methodological triangulation: using a few different data collection methods = a form of (Briller et al., 2008).
- Data triangulation: including different stakeholders (e.g., children, parents, school board members) for broader perspectives.
- Multiple methods can be important for working with children and getting a better understanding of their perspectives on safety (Darbyshire et al., 2005).

The Importance of Including Parents and Guardians. The literature review highlighted the important role of parental perceptions in influencing children's mode of travel to school.

- Parental perceptions are influenced by a variety of factors that are often unique to communities and individuals. Such information can be helpful in introducing initiatives and implementing strategies to introduce safer school travel routes and encouraging active school travel.
- The Parent Council could leverage existing school events or organize specific gatherings for parents as a means of gathering community perspectives. When gathering this information, the parent council could adopt a more formal approach or less formal approach (or a combination), depending on how they feel is the best way to engage parents.
  - e.g. Sticky note boards around the school during parent-teacher conference nights, sending out links in newsletters about focus groups.

## Foster ongoing collaboration between the City of Hamilton and the parent council

- As seen in the Environmental Scan, the City of Hamilton can be viewed as the main actor in school transit safety; continuous collaboration is worthwhile. Currently, the City of Hamilton has certain projects underway that align with the goals of the parent council; however, this information was not readily available online, and some members of the parent council were also unaware of these initiatives.
- This poses a significant barrier to collaboration, as the lack of knowledge limits opportunities for families, schools, and local stakeholders to engage with or support existing efforts.

- Improved communication channels and regular updates between the parent council and City staff working on such efforts would help bridge this gap and leading to more coordinated and impactful efforts.
  - Including municipal-level planners and other City stakeholders in future research could be highly informative, as they hold important contextual knowledge that can shape understanding of feasibility.
- At the same time, Parent Council itself possesses valuable insights from families, students, and the local community that can inform research and decision-making.
  - Collaborating in a two-way exchange of information between the City and the Parent Council could foster trust and support more coordinated safety goals.
  - One way to address this would be for the parent council to initiate contact with relevant City staff and recommend that a designated City representative regularly coordinate and share project updates through a liaison from the council. This approach could also provide the parent council with an opportunity to share their perspectives, priorities, and community-based insights.

## Prioritize access during recruitment

Ensuring broad and equitable participation is key to achieving meaningful and accurate research outcomes. It is imperative to be intentional about who in the school community is involved – and is not included – in any future research. A diverse and representative sample of the school community helps to capture the perspectives from those with varied experiences and insights, which strengthens the relevance and impact of findings. Some considerations:

- Involve children of different ages, genders, and abilities. People with disabilities tend to be disproportionately affected by urban planning decisions (Terashima and Clark, 2021).
- Engage parents, guardians, and caregivers across different backgrounds.
  - Make participation approachable by providing clear instructions and the purpose of any future research.
  - Consider practicalities such as language, transportation, and childcare barriers.
- Use multiple channels to engage the school community (e.g. school newsletters, social media groups, flyers at school)
- Monitor and adjust.
  - Track who is engaged and identify gaps.
  - Adjust outreach as needed to ensure underrepresented voices are included.



## Pathways forward

The recommendations above point to actions that are both feasible for the Parent Council and aim to be impactful for Bennetto families. Taken together, three potential roles for the Council include:

- Connect. Reach out to actors like the City of Hamilton, HWSTS, and the Daily School Route to explore whether they can lead or co-lead safety initiatives.
- Advocate. Push for the implementation of accessible tools like mapping or photovoice to highlight the lived safety experiences of students and families.
- Equity. Monitor participation in future research to ensure that diverse voices and definitions of safety are included.

While it is likely beyond the Parent Council's capacity to design or implement a large scale research project on its own, collaborating with organizations that have the relevant authority and resources can serve as a starting point for meaningful improvements.

## References

- Blades, M., Blaut, J. M., Darvizeh, Z., Elguea, S., Sowden, S., Soni, D., Spencer, C., Stea, D., Surajpaul, R., & Uttal, D. (1998). A cross-cultural study of young children's mapping abilities. *Transactions of the Institute of British Geographers*, 23(2), 269–277. <https://doi.org/10.1111/j.0020-2754.1998.00269.x>
- Briller, S. H., Meert, K. L., Schim, S. M., Thurston, C. S., & Kabel, A. (2008). Implementing a triangulation protocol in bereavement research: A methodological discussion. *OMEGA - Journal of Death and Dying*, 57(3), 245–260. <https://doi.org/10.2190/OM.57.3.b>
- Bron, S., & O'Reilly, N. (2024, October 13). 'The sweetest girl' suffers life-altering injuries after being hit by car while waiting for school bus. *The Hamilton Spectator*. [https://www.thespec.com/news/hamilton-region/the-sweetest-girl-suffers-life-altering-injuries-after-being-hit-by-car-while-waiting-for/article\\_0daa4f59-8720-5489-8895-a71396257a8f.html](https://www.thespec.com/news/hamilton-region/the-sweetest-girl-suffers-life-altering-injuries-after-being-hit-by-car-while-waiting-for/article_0daa4f59-8720-5489-8895-a71396257a8f.html)
- Darbyshire, P., MacDougall, C., & Schiller, W. (2005). Multiple methods in qualitative research with children: More insight or just more? *Qualitative Research*, 5(4), 417–436. <https://doi.org/10.1177/1468794105056921>
- Fleury, J., Keller, C., & Perez, A. (2009). Exploring resources for physical activity in Hispanic women, using photo elicitation. *Qualitative Health Research*, 19(5), 677–686. <https://doi.org/10.1177/1049732309334471>
- Guliani, A., Mitra, R., Buliung, R. N., Larsen, K., & Faulkner, G. E. J. (2015). Gender-based differences in school travel mode choice behaviour: Examining the relationship between the neighbourhood environment and perceived traffic safety. *Journal of Transport & Health*, 2(4), 502–511. <https://doi.org/10.1016/j.jth.2015.08.008>
- Hamilton-Wentworth District School Board [HWDSB] (2024b). *Bennetto Elementary School Profile*. <https://www.hwdsb.on.ca/bennetto/about/profile/>
- Hamilton-Wentworth District School Board [HWDSB] (2024b). *School Councils*. <https://www.hwdsb.on.ca/elementary/get-involved/councils/#tabs-112>
- Harden, R. (2000). The integration ladder: A tool for curriculum planning and evaluation. *Medical Education*, 34(7), 551–557. <https://doi.org/10.1046/j.1365-2923.2000.00697.x>
- Hennessy, E., Kraak, V. I., Hyatt, R. R., Bloom, J., Fenton, M., Wagoner, C., & Economos, C. D. (2010). Active living for rural children. *American Journal of Preventive Medicine*, 39(6), 537–545. <https://doi.org/10.1016/j.amepre.2010.09.013>

- Kahan, D. M., Braman, D., Gastil, J., Slovic, P., & Mertz, C. K. (2007). Culture and identity-protective cognition: Explaining the white-male effect in risk perception. *Journal of Empirical Legal Studies*, 4(3), 465–505. <https://doi.org/10.1111/j.1740-1461.2007.00097.x>
- Larsen, K., Buliung, R. N., & Faulkner, G. E. J. (2013). Safety and school travel: How does the environment along the route relate to safety and mode choice? *Transportation Research Record: Journal of the Transportation Research Board*, 2327(1), 9–18. <https://doi.org/10.3141/2327-02>
- McCullogh, E., Macpherson, A., Hagel, B., Giles, A., Fuselli, P., Pike, I., Torres, J., & Richmond, S. A. (2023). *Road safety, health equity, and the built environment: Perspectives of transport and injury prevention professionals in five Canadian municipalities*. <https://doi.org/10.14288/1.0435228>
- Oetzel, J. G., Boursaw, B., Magarati, M., Dickson, E., Sanchez-Youngman, S., Morales, L., Kastelic, S., Eder, M. “Mickey,” & Wallerstein, N. (2022). Exploring theoretical mechanisms of community-engaged research: A multilevel cross-sectional national study of structural and relational practices in community-academic partnerships. *International Journal for Equity in Health*, 21(1), 59. <https://doi.org/10.1186/s12939-022-01663-y>
- Orr, K., Balardo, M. L., Parascandalo, F., & Johnson, C. (2024). *School Streets Feasibility Study*. Public Health Services and Sustainable Mobility, City of Hamilton. <https://assets.nationbuilder.com/mwilson/pages/586/attachments/original/1745592764/CommsUpdate-PED-SchoolStreetsFeasibilityStudy%28CityWide%29.pdf?1745592764>
- Panter, J. R., Jones, A. P., & Van Sluijs, E. M. (2008). Environmental determinants of active travel in youth: A review and framework for future research. *International Journal of Behavioral Nutrition and Physical Activity*, 5(1), 34. <https://doi.org/10.1186/1479-5868-5-34>
- Peek, L., & Fothergill, A. (2009). Using focus groups: Lessons from studying daycare centers, 9/11, and Hurricane Katrina. *Qualitative Research*, 9(1), 31–59. <https://doi.org/10.1177/1468794108098029>
- Phoenix, C., Orr, N., & Griffin, M. (2017). Bringing socio-narratology and visual methods to focus group research. In R. S. Barbour & D. L. Morgan (Eds.), *A New Era in Focus Group Research* (pp. 325–342). Palgrave Macmillan UK. [https://doi.org/10.1057/978-1-137-58614-8\\_15](https://doi.org/10.1057/978-1-137-58614-8_15)
- Qi, J., Mazumdar, S., & Vasconcelos, A. C. (2024). Understanding the relationship between urban public space and social cohesion: A systematic review.

- International Journal of Community Well-Being*, 7(2), 155–212.  
<https://doi.org/10.1007/s42413-024-00204-5>
- Sawyer, A., Ucci, M., Jones, R., Smith, L., & Fisher, A. (2018). Supportive environments for physical activity in deprived communities in the United Kingdom: A qualitative study using photo elicitation. *Social Science & Medicine*, 197, 49–58.  
<https://doi.org/10.1016/j.socscimed.2017.11.048>
- Sebastião, E., Gálvez, P. A. E., Bobitt, J., Adamson, B. C., & Schwingel, A. (2016). Visual and participatory research techniques: Photo-elicitation and its potential to better inform public health about physical activity and eating behavior in underserved populations. *Journal of Public Health*, 24(1), 3–7.  
<https://doi.org/10.1007/s10389-015-0698-z>
- Slavich, G. M. (2020). Social safety theory: A biologically based evolutionary perspective on life stress, health, and behavior. *Annual Review of Clinical Psychology*, 16(1), 265–295. <https://doi.org/10.1146/annurev-clinpsy-032816-045159>
- Swain, R., Oswin, P., Truelove, V., & Larue, G. S. (2024). Children’s and parents’ perceptions on safe routes to schools: A mixed-methods study investigating factors influencing active school travel. *Journal of Urban Design*, 29(2), 208–230.  
<https://doi.org/10.1080/13574809.2023.2223517>
- Syropoulos, S., Leidner, B., Mercado, E., Li, M., Cros, S., Gómez, A., Baka, A., Chekroun, P., & Rottman, J. (2024). How safe are we? Introducing the multidimensional model of perceived personal safety. *Personality and Individual Differences*, 224, 112640. <https://doi.org/10.1016/j.paid.2024.112640>
- Terashima, M., & Clark, K. (2021). The precarious absence of disability perspectives in planning research. *Urban Planning*, 6(1), 120–132.  
<https://doi.org/10.17645/up.v6i1.3612>
- Van Der Burgt, D. (2013). Spatial avoidance or spatial confidence? Young people’s agency in the active negotiation of risk and safety in public space. *Children’s Geographies*, 13(2), 181–195. <https://doi.org/10.1080/14733285.2013.828455>
- Vasey, T. V., Carroll, S. J., Daniel, M., & Cargo, M. (2022). Changing primary school children’s engagement in active school travel using safe routes to school interventions: A rapid realist review. *International Journal of Environmental Research and Public Health*, 19(16), 9976.  
<https://doi.org/10.3390/ijerph19169976>
- Wang, C., & Burris, M. A. (1997). Photovoice: Concept, methodology, and use for participatory needs assessment. *Health Education & Behavior*, 24(3), 369–387.  
<https://doi.org/10.1177/109019819702400309>

- Wood. (2019). *Ainslie Wood Neighbourhood Traffic Management Survey*.  
<https://www.hamilton.ca/sites/default/files/2022-08/ainsliewood-transportation-project-file-report-appendixD.pdf>
- YWCA Hamilton. (2025). *Hamilton's Gender-Based Safety Audit*. YWCA Hamilton.  
<https://www.ywcahamilton.org/wp-content/uploads/2025/06/GBSA-Final-Report-1.pdf>

## Appendix: Interview Guide

Topic 1: Current & Ongoing Projects	
City of Hamilton	HWSTS
<p>From online searching, our understanding is that the City of Hamilton is involved in (name a few):</p> <ul style="list-style-type: none"> <li>• Neighbourhood Speed Limit Reduction Strategy</li> <li>• Crossing Guard Recruitment</li> <li>• Transportation Tomorrow Survey</li> <li>• School Streets Feasibility Study</li> <li>• Ontario Active School Travel</li> <li>• School Site Design Guidelines for Active &amp; Sustainable Transportation</li> <li>• School Travel Plans</li> <li>• Ainslie Wood Traffic Management Review</li> <li>• City of Hamilton Master Transportation Plan</li> <li>• Active and Sustainable School Travel Charters</li> <li>• Vision Zero</li> <li>• Daily School Route</li> <li>• Community Safety Zones</li> <li>• Complete Streets Design Guidelines</li> </ul> <ol style="list-style-type: none"> <li>1. Our understanding is that the City supports student safety along school routes through a variety of programs and partnerships – for example, local school boards and NGOs. Is this correct?</li> <li>2. Could you elaborate on the City's role in these initiatives?</li> <li>3. Are there any recent changes or updates to any of these programs?</li> </ol>	<p>From online searching, our understanding is that HWSTS is involved in:</p> <ul style="list-style-type: none"> <li>• First Rider Program <ul style="list-style-type: none"> <li>○ Introduces Kindergarten students to school bus safety</li> </ul> </li> <li>• Compliance Training Supplemental Materials Manual. <ul style="list-style-type: none"> <li>○ Requires parent/guardian presence at pick-up/drop-off for kindergarten students;</li> <li>○ Emphasizes driver responsibility for physical and emotional safety on the bus;</li> <li>○ States that conduct endangering student safety are prohibited.</li> </ul> </li> </ul> <ol style="list-style-type: none"> <li>1. Our understanding is that the HWSTS aims to enhance student safety throughout the entire transportation experience (not just on the bus). Is this correct?</li> <li>2. Could you elaborate on HWSTS's role in these initiatives?</li> <li>3. Are there any recent changes or updates to any of these programs?</li> <li>4. Beyond what we've identified, is your organization involved in any other initiatives around student school route safety? If so, could you describe them?</li> <li>5. Are you aware of any other groups or organizations in the City of Hamilton doing this kind of work?</li> <li>6. Were there any initiatives in other areas / neighborhoods that</li> </ol>

	informed the development of / served as a model for initiatives you've led/ been involved in?
<b>Topic 2: Methodological Approaches</b>	
<b>City of Hamilton</b>	<b>HWSTS</b>
<ol style="list-style-type: none"> <li>1. What data sources and/or tools did you or do you rely on to identify safety needs/priorities?</li> <li>2. Are community stakeholders involved in projects concerning student transportation safety assessment and response? <ol style="list-style-type: none"> <li>a. <b>If yes:</b> Which community members are involved, and what methods are used to engage them?</li> <li>b. <b>If not:</b> Why not? Are there any barriers that complicate involving the community? <ol style="list-style-type: none"> <li>i. Have there been attempts to involve the community before? Which methodology was used, and why was it unsuccessful?</li> </ol> </li> </ol> </li> <li>3. [If applicable] What strategies are used to coordinate multi-actor projects (i.e., involvement of different sectors, different community partners)? How are interested organizations sought out / degree of involvement determined?</li> <li>4. Should a more comprehensive study of road safety in the Bennetto neighborhood be undertaken, what organizations do you think should be involved?</li> </ol>	<ol style="list-style-type: none"> <li>1. What data sources and/or tools did you or do you rely on to identify safety needs/priorities?</li> <li>2. Are community stakeholders involved in projects concerning student transportation safety assessment and response? <ol style="list-style-type: none"> <li>a. <b>If yes:</b> Which community members are involved, and what methods are used to engage them?</li> <li>b. <b>If not:</b> Why not? Are there any barriers that complicate involving the community? <ol style="list-style-type: none"> <li>i. Have there been attempts to involve the community before? Which methodology was used, and why was it unsuccessful?</li> </ol> </li> </ol> </li> <li>3. [If applicable] What strategies are used to coordinate multi-actor projects (i.e., involvement of different sectors, different community partners)? How are interested organizations sought out / degree of involvement determined?</li> </ol>

<b>General Closing Questions</b>	
1. Do you have any additional comments or information that you would like to share?	