

WHEELING TO SCHOOL



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Assessing Barriers to Cycling to School in
Ontario

A collaboration between Green Communities Canada and Share the Road Cycling Coalition. This intensive four school pilot project assessed barriers to cycling for elementary school children and for schools that wish to promote cycling as an active travel option in Ontario.

Wheeling to School

ASSESSING BARRIERS TO CYCLING TO SCHOOL IN ONTARIO

PROJECT DESCRIPTION

Like other active forms of travel cycling can improve children’s health through increased daily physical activity, mitigate congestion and associated air pollution around the school, and teach children important safety skills. Results from School Travel Planning initiatives across the country noted some significant increases in walking to school, from 6% to as high as 20; however, rates of families choosing cycling to school remains at a persistent 1% average. Increasing cycling to school requires assessing unique barriers that differ from walking and providing educational opportunities that create behaviour change and create a culture of enthusiastic riders.

The Wheeling to School pilot was a collaboration between Green Communities Canada and Share the Road Cycling Coalition. The intensive four school pilot project assessed barriers to cycling for elementary school children and for schools that wish to promote cycling as an active travel option in Ontario. Figure 1 maps the four schools in south-western Ontario.



FIGURE 1: LOCATION OF PILOT SCHOOLS

School Profile



SHEPPARD PS, KITCHENER: 320 students, K-6, mature suburban mixed-use neighbourhood, Grade 5 Cycling Program

EASTDALE PS, WOODSTOCK: 285 students, K-8, mature suburban land use adjacent the school



MITCHELL HEPBURN P.S., ST. THOMAS: 500 students, K-8, mainly new development residential land use

ST. LAWRENCE CATHOLIC SCHOOL, HAMILTON: 407 students, K-8, urban neighbourhood, numerous one-way streets



PROCESS

Between 2005 and 2012 Green Communities Canada created, tested and disseminated the [School Travel Planning \(STP\) model](#) framework and toolkit which enables communities to customize and deliver active and safe routes to school programming. The Wheeling to School pilot customized some of the STP tools for the cycling focus of the project. Figure 2 shows key stages in the pilot with suggested timelines.

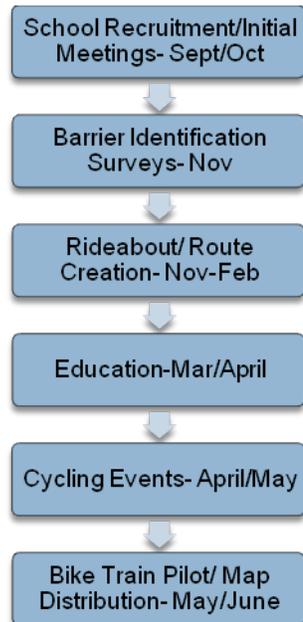


FIGURE 2: WHEELING TO SCHOOL PROCESS

Survey Results

Survey results at each school provided an understanding of existing barriers existed to cycling and what interventions would be most effective in eliciting behaviour change. The results reflected each community’s current level of cycling-friendliness and existing supports. For example, in Woodstock where bike racks were old and hidden in the back of the school yard, parents felt that the greatest need was for a safe area where students could lock their bikes. In Hamilton, where the school had installed new racks a year earlier, responses were more varied.

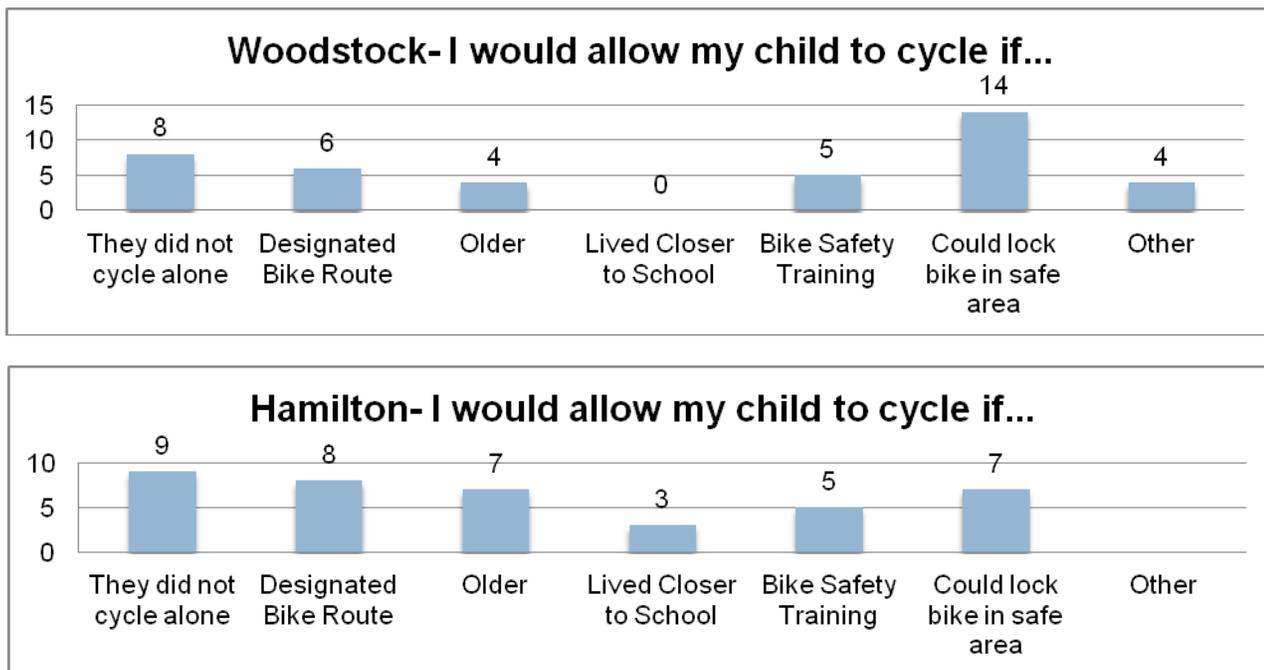


FIGURE 3- SAMPLE SURVEY RESULTS FOR WOODSTOCK AND HAMILTON

Route Maps

Recommended routes-to-school were created in phases and in consultation with the community committee, parents and students. The survey data provided the locations of families who were interested in cycling to school and helped to create the best routes to accommodate these families. An assessment of these routes was discussed with each school’s municipal staff prior to the cycle-about.

The cycle-about invited students, teachers, school administrators, parents, public health nurses, school board dignitaries, city councillors, police and municipal planning staff to assess routes around the school on their bikes. Participants examined the on and off-road environment around the school for its potential to encourage cycling and noted possible changes that municipal staff should consider for future road/trail enhancements. Participants had opportunities to discuss their findings during the cycle-about and make note of them on a worksheet afterwards.



FIGURE 4- CYCLE ABOUT IN WOODSTOCK, ST. THOMAS AND HAMILTON

At the school site itself the cycle-about addressed accessibility to bike racks as well as any potential dangers in the school’s drop-off zones. Recommended bicycle routes were then mapped onto a postcard that was provided for students to take home.

Through project follow-up surveys all stakeholders responded positively to the cycle-about, stating that it was a valuable experience and the best way to understand the ride to school first hand.

“IT WAS FANTASTIC HOW THE STUDENTS WERE INVOLVED IN THE PLANNING OF THE PROMOTION OF CYCLING TO SCHOOL, THEY HAVE GREAT IDEAS AND WITH SUPPORT CAN BE THE AGENTS FOR CHANGE.”

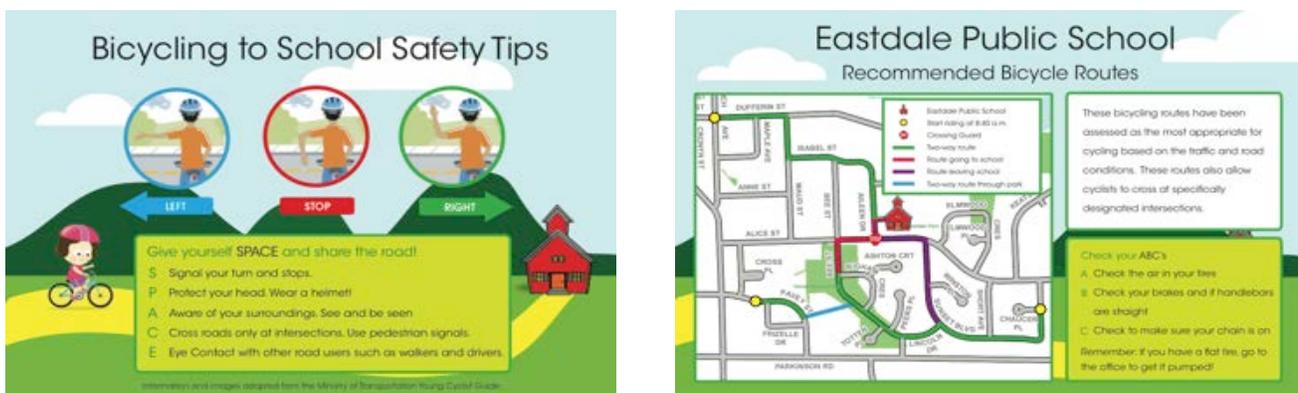


FIGURE 5- SAMPLE BIKE ROUTE POSTCARD WITH CYCLING SAFETY TIPS

OUTCOMES

Recommended Routes to School

Each pilot school identified three to four suggested ‘best’ routes to school by bicycle. Creating these routes was a collaborative effort between the Wheeling to School Committee and municipal/regional staff. Students participated in the cycle-about and provided feedback on the usability of each route. Two schools have opted to send postcard maps home with all new students as part of their welcome packages to the school.



FIGURE 6- OFF-ROAD TRAIL CONNECTING CUL-DE-SAC AND SCHOOL IN ST. THOMAS

On and Off Road Bike Routes to School

Schools in Woodstock, St. Thomas and Hamilton were able to utilize off-road trail connections for sections of their bike routes. Off-road trail connections are a great choice for routes to school and new trails should be encouraged. Trails are youth and child-friendly and a good environment for families to increase their comfort cycling together.

Cycling Education

Cycling education was provided at all four schools and included an on-bike component. We utilized existing community programs and resources for cycling education delivery and/or bike maintenance and included bike rodeos, workshops and in-class sessions. In the Spring, three of the four schools we were able to offer a bike-tune up for students and family members that may ride together. These tune-ups were provided by local bike-cooperatives.

“OVERALL THIS WAS A GREAT PROJECT THAT GAVE STUDENTS THE INCENTIVE TO RIDE THEIR BIKES TO SCHOOL. THIS GAVE US THE OPPORTUNITY TO GIVE CLASSROOM INSTRUCTION ON SAFER BIKE RIDING.”



FIGURE 7- IN-CLASS CYCLING TRAINING IN WOODSTOCK

Local Partnerships Harness Success

St. Lawrence Catholic School in Hamilton brought together community partners from public health, traffic operations, city council, and police for route planning. A local cycling non-profit provided bike tune-ups and cycling education while a young couple came in to do BMX tricks on the bike festival day. The school community and specifically the students were integral in the process as they were the key decision makers on the project committee.



FIGURE 8- NEW HOPE BIKES PROVIDES BIKE TRAINING AND BMX BIKER SHOWS STUDENTS SOME TRICKS IN HAMILTON



FIGURE 9- PARENT LED BIKE TRAINS IN KITCHENER

Bike Trains Tested

We were successful in launching a pilot ‘bicycle train’ day in three of the four communities. The bicycle trains had representation from students, parents, teachers, public health nurses, police and the project facilitator. The bicycle train followed the designated routes described above and picked or dropped off students. Students were provided bike education opportunities prior to the bicycle train day.

Bike Train: A group of adults and students riding along a designated route to or from school. Students can meet at a selected location or be picked up along the way. Adults can be parent volunteers, teachers, police and public health nurses.

Increases in Cycling to School

The pilot saw increases in students cycling at all four schools. Students were provided incentives such as bells, helmets, locks and lights, and prizes for participating in cycling education and frequent cyclist programs. The most notable increases occurred in Hamilton and Kitchener. St. Lawrence Catholic School in Hamilton was able to see increases in walking and cycling over a two year period due to previous data collection. Cycling increased 9% from 1% in May 2010 to 10% in June 2012. At Sheppard Public School in Kitchener cycling increased from 4.3% in classroom surveys collected in March 2012 to 12.4% in June 2012. St. Thomas saw drastic increases on their Wheeling Wednesdays with bike racks filling to the brim and between 30 and 50 riders a week.

“OUR SCHOOL WENT FROM 3 OR 4 RIDERS ON AVERAGE PER DAY TO BETWEEN 30 AND 50 RIDERS PER DAY. STUDENTS IN GRADES 3-6 GOT THE MOST OUT OF THE PROGRAM.”

A Community Bike Festival

Sheppard P.S. in Kitchener had grade 5 students organize and run (with the help of parents) a community bike festival. Members of the community and school were invited to participate in bike skills games, free tune-ups, bike testing and a BBQ. Over 100 people come to the event on a Saturday in April! The early spring fun event left the school time to build momentum into June.



FIGURE 10- COMMUNITY BIKE FESTIVAL AT SHEPPARD PS IN KITCHENER

Donated Bicycle Racks

Eastdale P.S in Woodstock approached a local bike rack manufacturer, Maglin Site Furniture, who generously donated two bicycle racks for the project. These racks were an upgrade from the unused older racks. The location of the racks was moved to a newly paved visible location at the front of the school.



FIGURE 11- BEFORE AND AFTER BIKE RACKS IN WOODSTOCK- STUDENTS LOCK UP THEIR BIKES

CHALLENGES AND BARRIERS

Inequality of Cycling Education in Communities-

Across the four pilot schools accessibility to cycling instructors was varied creating inconsistent degrees of education provision. We used a combination of independent and municipal CAN Bike Instructors to provide on-bike training for students. In Woodstock instructors were provided in partnership with the municipality. At the other pilot schools instructors were either exceeded our budget or were not locally available. These barriers make it difficult for schools to consider continuing to provide on-bike education past the pilot program and certainly don't encourage other schools to consider the promotion of cycle to school programming. Students were also provided a one-time education opportunity but as with other skills like swimming, repeated practice makes perfect.



FIGURE 12- CANBIKE INSTRUCTOR FROM SARNIA PROVIDES STUDENTS ONBIKE TRAINING IN ST.THOMAS

Recommendation: There is a strong case to be made for a universal, accessible and affordable cycling education program, available through school curriculum for Grades 5 through 7, and delivered across the province to provide students with much-needed cycling skills while creating potential new cyclists for the future.

Better Route Planning around Schools-

A significant barrier at two schools was the lack of cycling-friendly infrastructure along roadways to enable biking to school. In Kitchener, the crossing of a major arterial road created a challenge while in Hamilton one of the approaches was along a busy one-way street.

Recommendation: Beyond this pilot project, municipal or regional staff should be encouraged to work with schools to promote cycling by not only recommending best cycle routes but also to provide solutions to enhancing those routes through dedicated bike lanes, sharrows, signage etc. Municipalities should designate schools as priority areas for active transportation infrastructure upgrades to promote cycling and walking to school.

School Selection for Cycling Projects-

Creating a culture of cycling takes time in any community and especially at an elementary school. Schools should be considered that have a burgeoning cycling interest or a proven record of parental involvement in school programs. All schools received benefits and saw successes with the Wheeling project to some extent, however, it was a challenge at some schools to attract long-term parental commitment for the bicycle train component of the project.

Recommendation: A next valuable step would be to create tools or programs that shift parental perceptions around the travel time and provide opportunities for behaviour change.

RESOURCES CREATED

Stakeholder Mapping

This document suggests possible stakeholders your school should contact to form a Wheeling to School Committee. It is adapted from the School Travel Planning Toolkit and blends the School and Municipal Committee to suit a smaller scale project. If your community has an existing Active & Safe Routes to School (ASRTS) Committee invite members to key meetings and events, and report back your work to the committee. From our pilot we found that a committed pool of parents at each school helps the project immensely during the events and bicycle train implementation.

[Wheeling to School Committee Members.pdf](#)

[Eastdale Wheeling to School Intro.pdf](#)

Media Release

A sample media release along with a photo of the article in the local paper that release garnered.

[Media Release and Media for Wheeling to School.pdf](#)

Wheeling to School Survey

This survey helps your school identify specific challenges and barriers to cycling to school for parents and students. The survey also helps you gauge which initiatives students are interested in and what the areas of concern are around the school. Students also map where they live which allows you to consider these households as potential early adaptors when route planning.

[Wheeling to School Barrier Assessment Survey.pdf](#)

[Hands Up Survey Wheeling to School.pdf](#)

[Wheeling to School Survey Data Entry.xls](#)

Cycle-about Handout

This worksheet is given to each participant to complete during the assessment of potential best routes.

[Cycle About Handout Sample.docx](#)

[Mitchell Hepburn Cycleabout Sample.pdf](#)

Sample Best Routes to School Postcard

Postcards are a convenient size to encourage students to post at home. Some pilot schools opted to include a meeting time for their bicycle train or a suggested time of departure. Sample postcards, shown on page 3, can be altered to have a simpler design or include student art.

[Postcard Eastdale.pdf](#)

SPECIAL THANKS FOR YOUR PROJECT CONTRIBUTIONS

- To all participating schools, school committees and supporting community partners for their dedicated efforts in the project
- Jacky Kennedy, Canada Walks
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- Sandra Jones, HASTE BC
- Dave Nighbor, Route Postcard Designer
- Wallace Beaton, Green Communities Canada
- Maglin Site Furniture
- Dick Felton, Can-Bike Instructor from Sarnia