

Vermont School Travel Plan Worksheet

Miller's Run School

August 2014





1. Introduction

Miller's Run School is committed to ensuring that all our students can utilize *physically active transportation*, such as walking and bicycling, for a safe and enjoyable trip to school. This school travel plan aims to address the issues that impede active transportation and seeks to strategically solve these problems by implementing a Safe Routes to School program.

Our community is motivated to pursue Safe Routes to School Because (check each that applies):

- we highly value student physical activity and health.
- we have a history of pedestrian and/or bicycle crashes around school(s).
- we wish to improve unsafe or insufficient walkways, bikeways, and crossings.
- we are committed to reducing speeding and reckless driving near school(s).
- our students are threatened by illegal behaviors near school(s).
- we want to improve the air quality and reduce fuel consumption around our school(s)
- we want to build better partnerships between school(s) and the community
- we would like to make our school and attractive and welcoming place

2. The Safe Routes to School Team

We believe that a diverse Safe Routes to School team develops the most successful School Travel Plans. Our Team is comprised of a variety of stakeholders, each lending their own unique perspective and expertise in order to make walking and bicycling to school more safe, accessible and fun for our students.

The members of our team include

Name	<i>Sophia Hall</i>	Affiliation	<i>Nurse</i>
Name	<i>Sikander Rashid</i>	Affiliation	<i>Principal</i>
Name	<i>Mark Brown</i>	Affiliation	<i>Fire Dept./Community Member</i>
Name	<i>MaryAnn Newland</i>	Affiliation	<i>Kitchen/Community Member</i>
Name	<i>Jerimiah Bias</i>	Affiliation	<i>PE Teacher</i>
Name	<i>Rene Henderson</i>	Affiliation	<i>Secretary</i>
Name	<i>Jan Sherman</i>	Affiliation	<i>Tooth Tutor/Community At Large</i>
Name	<i>Sarah Goodwin</i>	Affiliation	<i>4th Grade Teacher</i>

In collaboration with the Vermont Safe Routes to School Resource Center

The SRTS Champion and primary contact for our School Travel Plan is (include contact information): *Sophia Hall*

3. The Public Input Process

Our Team worked to include the entire community in developing our School Travel Plan. To accomplish this, we (check each that applies):

- administered parent surveys – *April 2014*
- interviewed key stakeholders
- publicized a public comment period
- conducted a community walking/bicycling audit – *July 2014*
- incorporated our town's existing bike or pedestrian plan recommendations
- incorporated our School Wellness Policy objectives
- hosted public meetings
- solicited student opinions
- conducted engineering studies - planning level in school travel plan August 2014
- we have no public input process at this time
- other ___

Some highlights of our public input activities included:
Had SRTS display board and pictures during school's open house on 8/26/14

4. Description of School (s)

Our School Travel Plan addresses the needs of (check only one):

- | | |
|--|---|
| <input checked="" type="checkbox"/> an individual school | <input type="checkbox"/> multiple schools include proximity (2 miles or less) |
| <input type="checkbox"/> a school district | <input type="checkbox"/> a city/municipality |
| <input type="checkbox"/> a county | <input type="checkbox"/> a region (please describe) _____ |
| <input type="checkbox"/> statewide | <input type="checkbox"/> other _____ |

Note: For plans serving multiple schools, all remaining sections of the School Travel Plan should address all schools collectively, using aggregate information.

The school(s) included in our School Travel Plan is/are (include partnership levels):
Miller's Run School, Silver-level Partner

5. School Demographics

Our student demographic information includes:

67% Free/Reduced Lunch	31 % Special Education
0 % ESL language?	5% 504 Plans

6. Current School Travel Environment

Miller's Run Elementary School plans to collect additional data using the student travel tally to better capture the current school travel environment. In the interim, the parent survey collected in April provides some insight into travel habits. See Appendix F for more the complete analysis from the recent parent survey.

Travel Mode	Walk	Bike	School Bus	Family Vehicle	Carpool	Public Transit	Other
Percentage of Students (AM)	8%	0%	43%	47%	2%	0%	0%
Percentage of Students (PM)	0.4%	0%	45%	52%	2%	0%	0%

These are the distances our students live from school:

Distance lived from school	0 miles to ½ mile	½ mile to 1 mile	1 mile to 1 ½ mile	1 ½ mile to 2 miles	2 miles or greater
Number of students	10	14	9	8	58
Percentage of students within each range	10%	14%	9%	8%	58%
Cumulative percentage	10%	24%	33%	41%	100%

We have the following supports or activities in place during student travel times (check each that applies):

- | | |
|---|--|
| <input type="checkbox"/> crossing guards | <input type="checkbox"/> student patrol |
| <input type="checkbox"/> parent patrol | <input checked="" type="checkbox"/> staff presence during drop-off/pick-up |
| <input type="checkbox"/> Walking School Bus | <input type="checkbox"/> Bike Train |
| <input type="checkbox"/> police department support | <input type="checkbox"/> crime or violence prevention program |
| <input type="checkbox"/> Neighborhood Watch program | <input type="checkbox"/> school traffic safety plan |
| <input type="checkbox"/> Other _____ | |

Our school arrival procedures include:

For pedestrians and bicyclists	7:30-7:50
For school buses	7:40-7:45
For carpools	7:30-7:50
For private vehicles	7:30-7:50

For teachers and staff	7:15-7:40
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Our school dismissal procedures include:

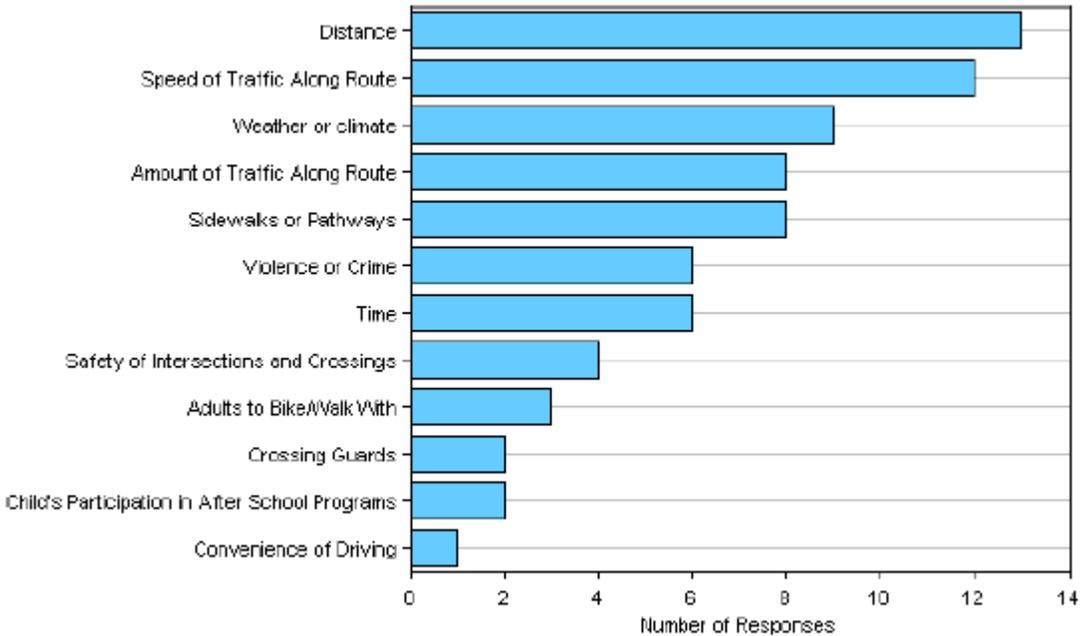
For pedestrians and bicyclists	K-4 is released first (2:40), then walkers and car riders (2:43), then bus riders (2:45)
For school buses	
For carpools	
For private vehicles	
For teachers and staff	2:45-5:00pm

Any given day, 25-40% of students stay on campus for the after-school program.

Our school does does not provide bus service to students.
 Bus service is provided to all children regardless of location.

7. Barriers to Active Transportation

We have identified and prioritized the following barriers to walking and bicycling to school



This information was captured in our parent surveys.
 Date Parent Survey was administered: April 2014
 Number of Surveys Returned: 19
 Return Rate: 19%

8. Traffic Counts

Below are the traffic counts that have been taken around our school (2011 traffic counts)

Location	Counts	Date	Speed	Average	85 th Percentile
Route 122 Sheffield, north of school entrance	76	7:00 AM Thursday, May 22, 2014 and Friday, May 23, 2014 (Average)	NA	NA	NA
Route 122 Sheffield, north of school entrance	83	3:00 PM Thursday, May 22, 2014 and Friday, May 23, 2014 (Average)	NA	NA	NA

9. Creating Solutions

Goals

Our primary goal(s) for active school transportation are (check each that applies):

- increase the number of students walking and bicycling to school by making routes safer
- improve the safety of walking and bicycling students

Strategies

We have identified strategies involving the 5 “E’s” of Safe Routes to School to address the barriers to walking and bicycling in our community and to achieve our stated goals.

We have selected at least one strategy from each of the categories of Education, Encouragement, Enforcement and Evaluation, in addition to any Engineering strategies that are indicated. The strategies we are working on include:

Following is a brief explanation of each of our proposed education activities:

a. Education Strategies (check at least one)

- teach pedestrian and bicycle safety skills to students and parents
Implement Walk Smart/Bike Smart in PE class – spring 2014
Secure Kohl’s Kids Bike Smart Trailer for June 2015
- organize a Bicycle Safety Fair or training course to teach on-bike skills
Saturday, September 6, 2014
- teach personal safety skills to students and parents
Education provided by nurse and teachers each October
- teach the health, environmental and sustainable transportation benefits of

walking and bicycling to students and parents

Ongoing

- educate parents and caregivers about safe driving procedures at the school
School would like to work on this. The staff currently parks where the parents would be safer to park and walk in with young children (closest to the sidewalk/school. Parents are currently using the bus-only loop to park and walk their child in.
- train school and community audiences about Safe Routes to School
- Other _____

Following is a brief explanation of each of our proposed encouragement activities:

b. Encouragement Strategies (check at least one)

- start a Walking School Bus program – *September 2014*
- start a Bike Train program
- host International Walk to School Day & Vermont Walk to School Day & Winter Walk Day (first Wednesday of October, February, and May).
- initiate a walking/biking mileage club or other contest
- create a park-and-walk program
- promote Safe Routes to School in the community – *long-term*
- initiate an incentive program for safe travel behaviors among students
- host monthly walk and bike to school day events on the first Wednesday of the month
- host weekly walk and bike to school days
- Participate in Walk at Lunch Day each April

Following is a brief explanation of each of our proposed enforcement activities:

c. Enforcement Strategies (check at least one)

- create a crossing guard training program
- create a parent or student patrol program
- lower speed limits in school vicinity
Work with town to reduce limit to 25 MPH
- utilize speed feedback trailers
Request made to the Sheriff's Department
- conduct increased warning efforts that target motorist
- start a Neighborhood Watch/Block Captain initiative
- conduct a community safe driving awareness campaign

Following is a brief explanation of each of our proposed engineering activities:

d. Engineering Strategies within 2 miles of schools (check each that applies)

- construct, replace, improve or repair sidewalks
- create on-street bicycle facilities (bike lanes, widened shoulders, etc.)
- build off-street walking/biking paths (Long term)
- install street crossing improvements (crosswalks, curb extensions, median refuges, raised crossings, pedestrian bridges or tunnels)
- install new or improved lighting for walkways or bikeways along path
- install new or improved signage (school zone, speed limits, crosswalk)
- install new or improved pavement markings or legends
- make existing walkways accessible to disabled students
- install bike parking near schools (bike racks, bike lockers, covered shelters)
- install traffic calming or speed reduction measures (curb extensions, speed humps, traffic circles, raised crosswalks, narrowing lanes, street closures)
- install traffic control devices (traffic signals, pedestrian signals, flashing beacons)
- design pick-up and drop-off procedures to increase safety and access
- divert traffic away from school zone or designated routes
- winter maintenance to keep walk and bike routes clear
- See attached Engineering Recommendations for a detailed plan**

Following is a brief explanation of each of our proposed evaluation activities:

e. Evaluation Strategies (check at least one)

To gauge the success of our efforts, we collected data both before and after implementing our strategies. We are measuring the impact of our school travel plan by (check at least one):

- conducting the student tally – *April 2014*
- conducting the parent survey – *April 2014*
- conducting traffic counts – Northern Vermont Development Association (NVDA)
- conducting bicycle and pedestrian counts
- obtaining planning services for expanding or improving an existing SRTS plan

With VT SRTS Resource Center

- we have developed additional safety evaluation measures that include:

Evaluation Method	"Before" Measure and Date Collected
Use student tally to count number of walking and bicycling students	Date(s): 5/13/14 % Walking: 8 % Bicycling: 0
Track number of crashes	Time Period: # of Crashes: 0
Measure parent perceptions of safety using parent survey	Date: April 2014 Top 3 concerns: 1) Distance

	2) Speed of traffic along route 3) Weather
Your own method	Date: Measurement:

10. Improvements Mapping

Note: See Appendix C for Miller's Run Elementary School location maps.

11. The Action Plan

The Safe Routes to School Team is committed to realizing our vision for a safe, enjoyable and accessible walking and bicycling environment for our students. We will utilize the following Action Plan to keep our efforts focused and on track:

PROPOSED SOLUTIONS FOR THE FIVE Es		
Education Actions	Responsibility	Time Frame
Conduct WalkSmart/Bike Smart in PE class.	Jerimiah Bias	Spring 2014
Organize bike safety training course to teach on-bike skills.	Jerimiah Bias	Septmeber 2014
Educate students and parents/caregivers on benefits of walking and bicycling through backpack fliers, school website and newsletter communication, school open house, and other opportunities as available and appropriate.	Sophia Hall	ongoing
Investigate change in staff parking to allow parents with young children to park closer to the school and discourage parking in the bus loop.	Sikander Rashid	Fall 2014
Educate parents and caregivers on safe driving procedures through backpack fliers, school website and newsletter and other opportunities as appropriate.	Sikander Rashid	ongoing
Enforcement Actions	Responsibility	Time Frame
Work with town to implement 25 MPH zone around the school.	Sophia Hall	Winter 2015
Locate speed feedback trailers 200 feet from the school entrance. Coordinate with VTrans Traffic Operations section.	Sikander Rashid	Fall 2014
Evaluation Actions	Responsibility	Time Frame
Conduct student travel tally	Sophia Hall	April 2014
Conduct parent survey	Sophia Hall	April 2014
Conduct traffic and speed counts on Route 122 at the school entrance (counts and speed conducted by Northern Vermont Development Association)	Gail Aloisio	Spring 2015
Conduct bicycle and pedestrian counts on Route 122 at the school entrance (work with Northern Vermont Development Association for assistance)	Sophia Hall	Spring 2015

Update / expand school travel plan.	Sophia Hall	Fall 2015
Encouragement Actions	Responsibility	Time Frame
Start a walking school bus program.	Sophia Hall	Fall 2014
Host three Walk to School events (International Walk / Winter Walk / Vermont Walk)	Sophia Hall and MaryAnn Newland	2014-2015
Host monthly walk to school events	Sophia Hall, Jan Sherman, and Sarah Goodwin	2014-2015
Promote Safe Routes Program to community through school website, town website and communication outlets	Sikander Rashid and Rene Henderson	ongoing
Secure approval from property owner to use the trail behind the school for Walk to School Day events. Work with the fire department on community service day to upgrade the trail.	Sophia Hall and Mark Brown	2015

12. Plan Approval

We believe that building a strong partnership between schools and local government is fundamental to the success of a School Travel Plan.

Our School Travel Plan has been endorsed by the following representatives:

REQUIRED: SCHOOL OFFICIAL

Name and Signature:

Title: Assistant Principal

Representing:

REQUIRED: SCHOOL DISTRICT OFFICIAL

Name and Signature:

Title:

Representing:

REQUIRED: LOCAL GOVERNMENT OFFICIAL

Name and Signature:

Title:

Representing:

REQUIRED: LOCAL POLICE DEPARTMENT

Name and Signature:

Title:

Representing:

OPTIONAL: OTHER POLITICAL SUBDIVISIONS (Regional Planning Commission)

Name and Signature:

Title:

Representing:

OPTIONAL: HEALTH ORGANIZATION (local public health agency, hospital, non-profit)

Name and Signature:

Title:

Representing:

13. Next Steps

Share your school travel plan with your community

- a. Post it on your school, town, or regional website
- b. Write and submit press releases for your local newspapers
- c. Share information in school and neighborhood newsletters

Put the plan into action

- a. This plan is your guiding document for your SRTS program, use it to stay on track with program goals and update often
- b. Your School Travel Plan is meant to be a living document and is able to change as your school determines what SRTS activities work best
- c. Pass your plan along so champions and committees in the future have access to both hard and soft copies of the plan
- d. Use this plan to apply for relevant grants – you’ve already done the work!

14. Attachments

- a. Location-specific Engineering Recommendations
(Location Key and Recommendations Table)
- b. Miller’s Run Student Locator Map
- c. Parent Survey and Student Tally Report
- d. Traffic Counts
- e. Non-Engineering Strategies Resource Guide
- f. Snow Removal Toolkit
- g. Infrastructure Strategies Resource Guide

Appendix B: Location-Specific Engineering Recommendations

- SRTS engineering strategies create safer environments for walking and bicycling to school through improvements to the infrastructure surrounding schools. These improvements focus on establishing safer and fully accessible crossings, walkways, trails and bikeways and reducing motor vehicle conflicts with pedestrians and bicyclists.
- The following table provides a summary of engineering strategies recommended for the Miller's Run School. These recommendations were developed by the Vermont Safe Routes to School Resource Center based on input from the Miller's Run SRTS Team. The table includes an estimate of the amount of time that is likely to be needed to implement the recommended improvements at each site (Estimated Time Frame).
- These recommendations are for planning purposes only and may require further engineering analysis, design, or public input before implementation. All designs should adhere to the guidelines from the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), the Public Rights of Way Access Guide (PROWAG), as well as any other standards such as AASHTO's "A Policy on Geometric Design of Highways and Streets," the Vermont State Design Standards, and other guides as appropriate.
- The summary table provided below is followed by information about implementation and a map, which shows where the recommendation sites are located in relation to the school.

Street Classifications and Descriptions

Street name	Classification of Highways	Speed Limit
Route 122	State Highway	35
Berry Hill	Class 3 City and Town Road	N/A

Site	Need	Recommendation	Time Frame	Team Priority
<p>A. Route 122</p> <p>Route 122 is a state highway located in front of the school. Route 122 is approximately 26 feet wide with no sidewalks or shoulders. The road crosses over the Miller’s Run Creek east of Chelsey Hill Road. The bridge over the creek is approximately 24 feet wide.</p> <p>Vehicles have been anecdotally observed to speed on this road.</p> <p>There is a crosswalk located at the school driveway. The crosswalk does not connect to a sidewalk, shoulder, or other appropriate receiving facility.</p>	<p>School staff report excessive vehicle speeds on Route 122 in front of the school and near Chelsey Hill Road and Berry Hill Road. The majority of students live south of the school and would access the school primarily by Route 122 via Chelsey Hill Road.</p>	<p>A1. Add an ADA compliant sidewalk on the south side of Route 122 between Chelsey Hill Road and the school driveway.</p> <p>A2. Replace the Route 122 bridge over Miller’s Run Creek, providing two 12 travel lanes and 5 foot sidewalks on either side. (Note, if the bridge is not planned to be reconstructed in the near future, add a footbridge south of the existing bridge over Miller’s Run creek to accommodate pedestrians, as the existing bridge is too narrow to accommodate sidewalks.)</p> <p>A3. Request a 25 mph school zone from the VTrans Traffic Operation section, with 25 MPH School Zone signs and School Zone pavement markings on Route 122. Signs and markings should be placed 200 feet from the school driveway in each direction.</p> <p>A4. Locate speed feedback signs at the beginning of the school zone. <i>Note that a speed study is required for use of the speed feedback trailer.</i></p> <p>A5. Add S4-5 “School Zone Ahead” signs 200 feet from the school zone in either direction.</p> <p>A6. Remove the crosswalk at the school driveway, as it does not connect to any pedestrian facility.</p>	<p>Short Term</p>	<p>High Priority</p>

Site	Need	Recommendation	Time Frame	Team Priority
<p>B. Berry Hill Road</p> <p>Berry Hill Road is a local gravel road. The road is on a steep decline towards Route 122 and vehicles have been anecdotally observed to speed on this road.</p> <p>There are no sidewalks or shoulders on this road.</p>	<p>Students have been observed walking to school from the northeastern neighborhood.</p> <p>There is a need for a dedicated pedestrian facility to accommodate children walking from Nelson Hill Road and Berry Hill Road.</p>	<p>B1. Conduct a study to determine the feasibility of a sidewalk or sidepath along this road.</p> <p>B2. Install Pedestrian Crossing signs (W11-2) on Berry Hill road on either side, 200 feet from the intersection with Nelson Hill Road.</p> <p>B3. Consider adding lighting under the I-91 underpass on Berry Hill Road to improve visibility.</p>	<p>Long Term</p>	<p>Low Priority</p>

Site	Need	Recommendation	Time Frame	Team Priority
<p>C. School Driveway</p> <p>The school is set back from Route 122 by 500 feet. There are no sidewalks to access the school.</p>	<p>Cars and buses access the school via the school driveway and there is no protected or designated pedestrian access.</p>	<p>C1. Install a sidewalk on the western side of the driveway from Route 122 and the school entrance.</p> <p>C2. Add a high visibility crosswalk across the entrance to the school driveway.</p>	<p>Short Term</p>	<p>High Priority</p>



Miller's Run Engineering Key

Sheffield, VT
August 2014



School Location



Segment Improvement

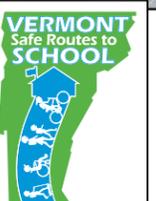


Intersection/Spot Improvement



Student Count

- # students within 0.25 mile: **4**
- # students within 0.5 mile: **12**
- # students within 1.0 mile: **33**
- # students within 1.5 miles: **36**
- # students within 2.0 miles: **52**
- Total # students: **89**



Miller's Run School Student Locator

Sheffield, VT
Summer 2014

Legend

	School Location		Student Residence
	Travel Distance to School (on-road)		Multiple Students' Residence



Vermont Safe Routes to School Partnership Form

SafeRoutes

Vermont Safe Routes to School

Please complete entire form and return to info@saferoutesvt.org or fax to 802.928.5712. Forms can also be sent to: Vermont Agency of Transportation, Program Development - LTF, 1 National Drive, Montpelier, VT 05633-5001, Attn: Aimee Pope.



School Name: Miller's Run School
Address: 3249 Vt Rte 122 Sheffield
Telephone: 802 626 4316 Fax: 05866
School Hours: 0745 1445

802 626 4316

1. Do you have an existing Safe Routes to School Program? YES NO

Just beginning - participated in "Walk to School" day in

If yes, please check the SRTS Elements your school currently participates in:

October

Education Enforcement Encouragement Evaluation Engineering

2. Has your school completed a SRTS Travel Plan? YES NO

If no, would you like to be considered for hands-on Travel Plan assistance offered by the Resource Center? YES NO

3. How many students attend this school? List total student population per grade:

K	1	2	3	4	5	6	7	8
10	12	15	14	10	15	7	12	16

4. Approximately what percentage of students live within one mile _____ or two miles _____ of the school?

5. Approximately how many students currently walk _____ or bike _____ to school?

6. How many crossing guards are assigned to this school? 0

7. Please CHECK the stakeholders that will participate in the SRTS Program:

Principal Parents School staff Safety/Patrol Officer Local Health Department
 Local Planning or Engineering Department Other: _____

Will work w/ local people
Have contact w/ school

The below contacts express their interest and support of becoming a Safe Routes to School Partner

Main Point of Contact(s)

Principal Information

Name: Sophia Hall
Title: RN - School Nurse
Email: shall@cnsu schools.org
Telephone: 802 626 9755

Name: Sikander Rashid
Signature: [Signature] Date: 12/18/13
Email: srashid@cnsu schools.org

Comments:

This school is located on Rt 122, the main road in the area - It will be a challenge to work with the kids/community to promote walking SAFELY. Walking School bus

Questions? Please contact Abby at info@saferoutesvt.org or 802.598.8651

Brought to you by the Vermont Agency of Transportation

Student Travel Tally Report: One School in One Data Collection Period

School Name: Millers Run School

Set ID: 14772

School Group: Millers Run

Month and Year Collected: April 2014

School Enrollment: 111

Date Report Generated: 05/13/2014

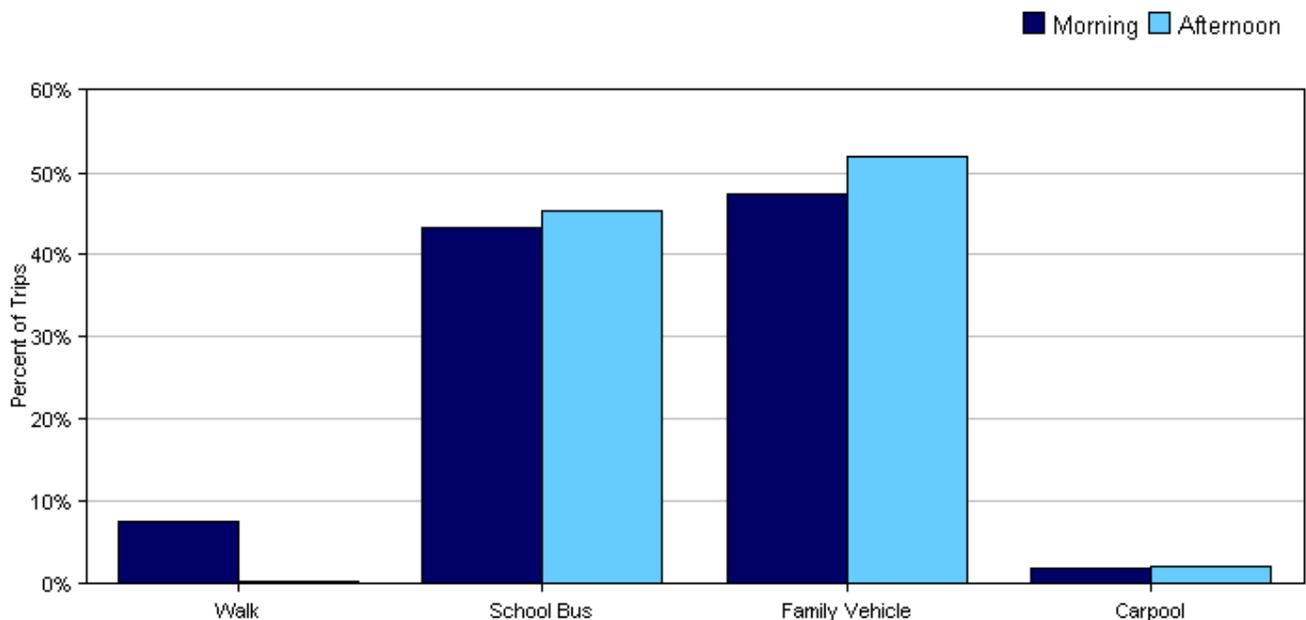
% of Students reached by SRTS activities: 76-100%

Tags:

**Number of Classrooms
Included in Report:** 9

This report contains information from your school's classrooms about students' trip to and from school. The data used in this report were collected using the in-class Student Travel Tally questionnaire from the National Center for Safe Routes to School.

Morning and Afternoon Travel Mode Comparison

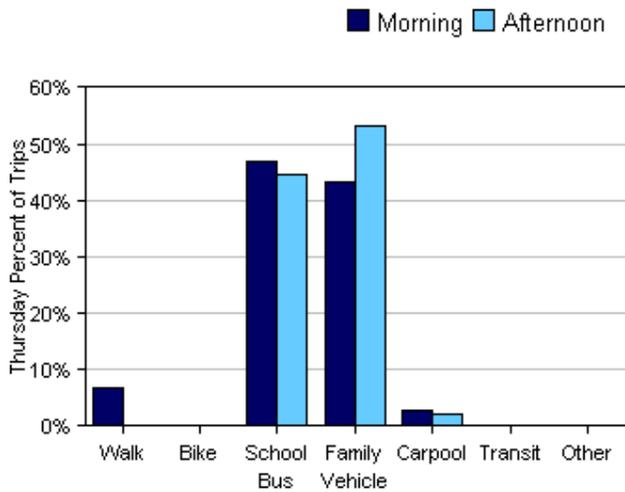
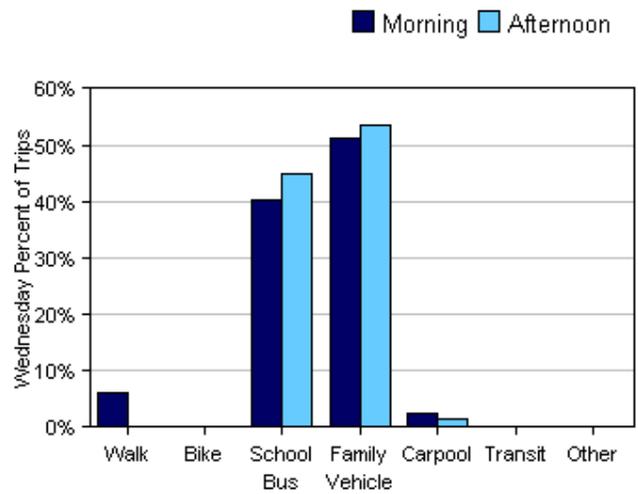
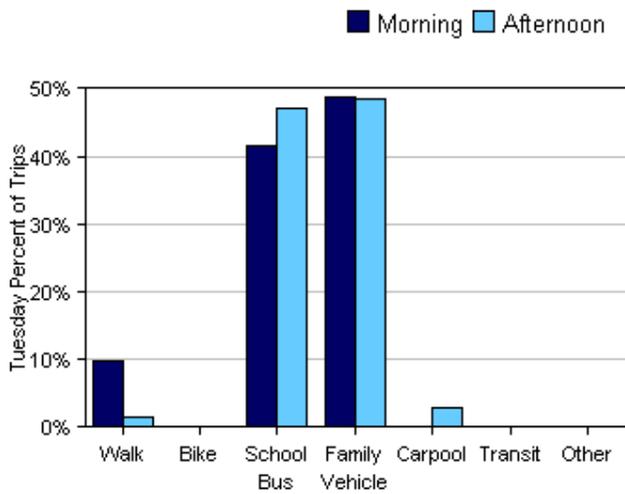


Morning and Afternoon Travel Mode Comparison

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	266	8%	0%	43%	47%	2%	0%	0%
Afternoon	229	0.4%	0%	45%	52%	2%	0%	0%

Percentages may not total 100% due to rounding.

Morning and Afternoon Travel Mode Comparison by Day

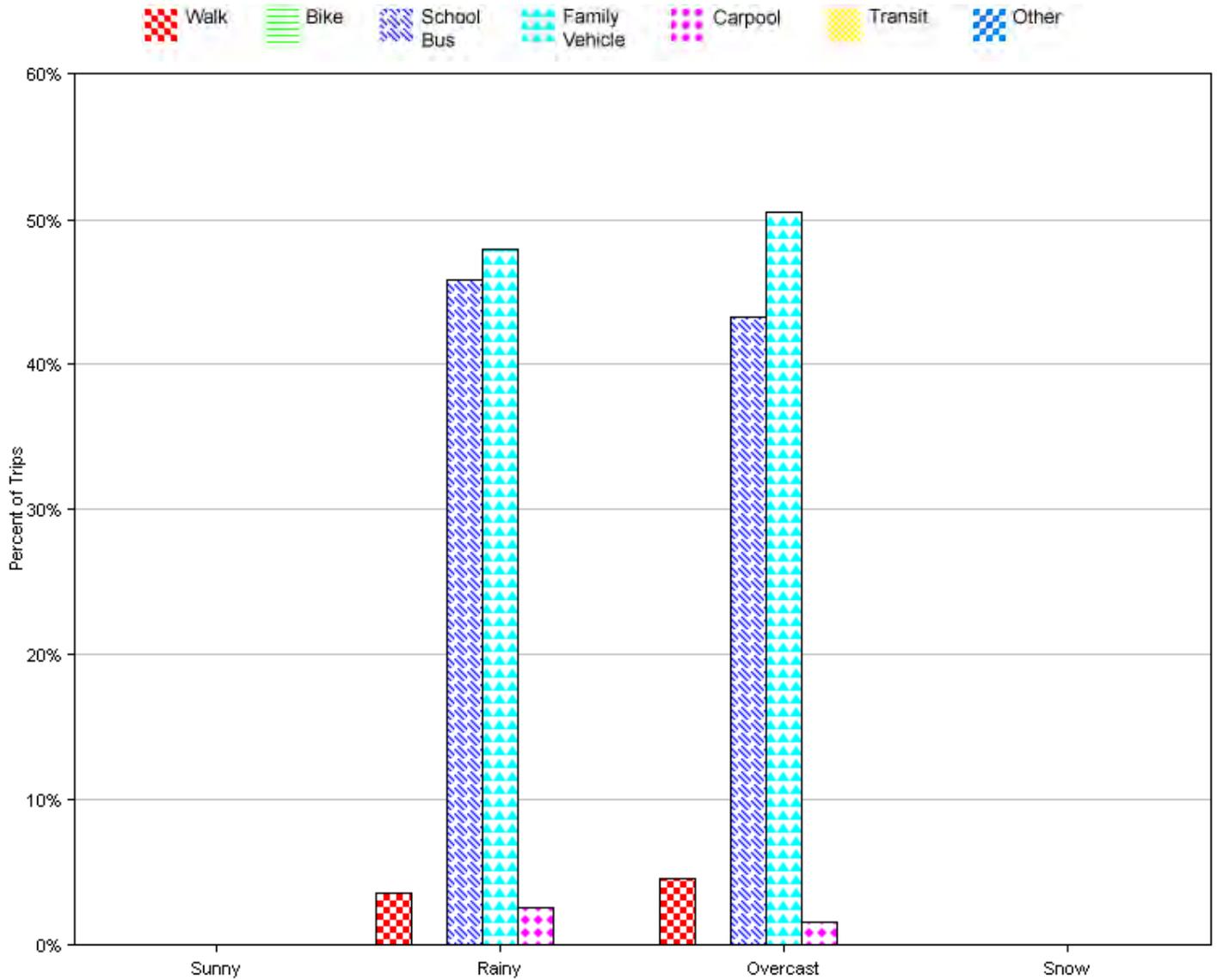


Morning and Afternoon Travel Mode Comparison by Day

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Tuesday AM	82	10%	0%	41%	49%	0%	0%	0%
Tuesday PM	68	1%	0%	47%	49%	3%	0%	0%
Wednesday AM	82	6%	0%	40%	51%	2%	0%	0%
Wednesday PM	71	0%	0%	45%	54%	1%	0%	0%
Thursday AM	102	7%	0%	47%	43%	3%	0%	0%
Thursday PM	90	0%	0%	44%	53%	2%	0%	0%

Percentages may not total 100% due to rounding.

Travel Mode by Weather Conditions



Travel Mode by Weather Condition

Weather Condition	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Sunny	0	0%	0%	0%	0%	0%	0%	0%
Rainy	192	4%	0%	46%	48%	3%	0%	0%
Overcast	303	5%	0%	43%	50%	2%	0%	0%
Snow	0	0%	0%	0%	0%	0%	0%	0%

Percentages may not total 100% due to rounding.

Parent Survey Report: One School in One Data Collection Period

School Name: Millers Run School

School Group: Millers Run

School Enrollment: 111

% Range of Students Involved in SRTS: 76-100%

Number of Questionnaires Distributed: 90

Set ID: 12078

Month and Year Collected: April 2014

Date Report Generated: 08/29/2014

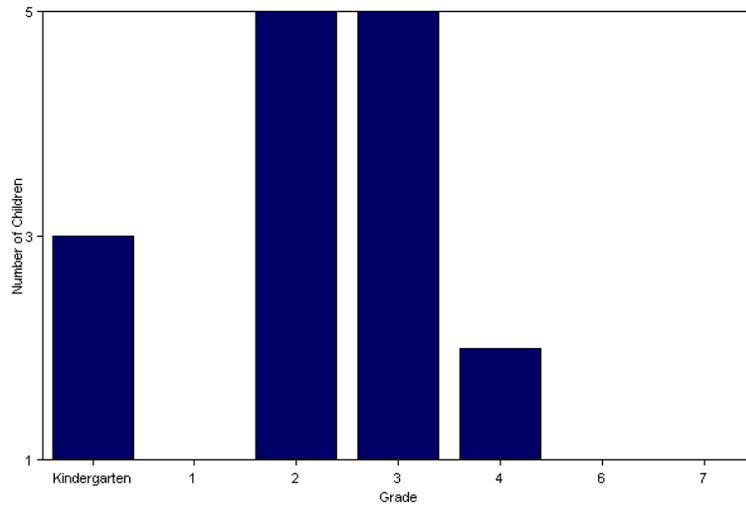
Tags:

**Number of Questionnaires
Analyzed for Report:** 19

This report contains information from parents about their children's trip to and from school. The report also reflects parents' perceptions regarding whether walking and bicycling to school is appropriate for their child. The data used in this report were collected using the Survey about Walking and Biking to School for Parents form from the National Center for Safe Routes to School.

**Because less than 30 questionnaires are included in this report, each graph and table display counts rather than percentage information.

Grade levels of children represented in survey



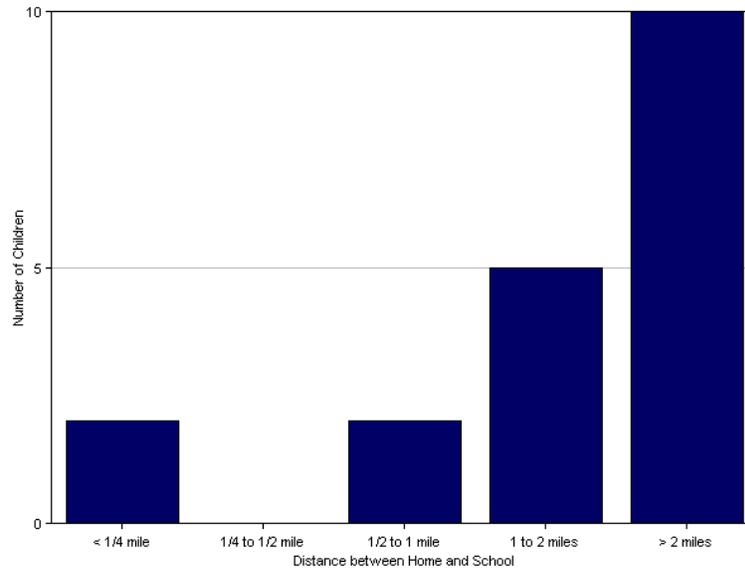
Grade levels of children represented in survey

Grade in School	Responses per grade
	Number
Kindergarten	3
1	1
2	5
3	5
4	2
6	1
7	1

No response: 0

Numbers rather than percents are displayed because the number of respondents for this question was less than 30.

Parent estimate of distance from child's home to school



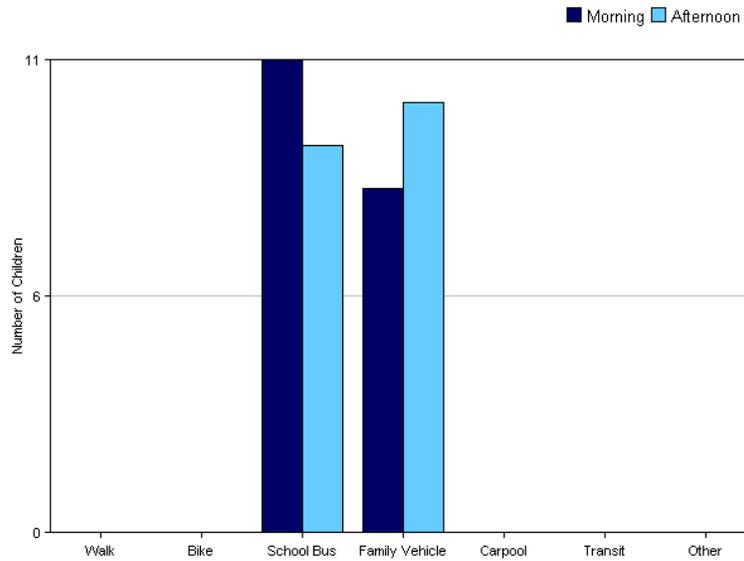
Parent estimate of distance from child's home to school

Distance between home and school	Number of children
Less than 1/4 mile	2
1/4 mile up to 1/2 mile	0
1/2 mile up to 1 mile	2
1 mile up to 2 miles	5
More than 2 miles	10

Don't know or No response: 0

Numbers rather than percents are displayed because the number of respondents for this question was less than 30.

Typical mode of arrival at and departure from school



Typical mode of arrival at and departure from school

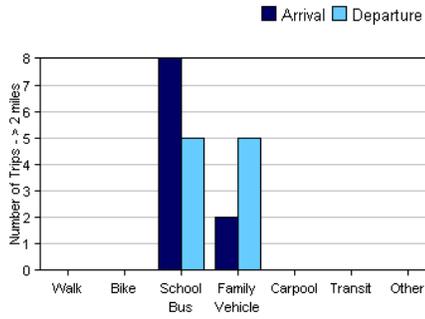
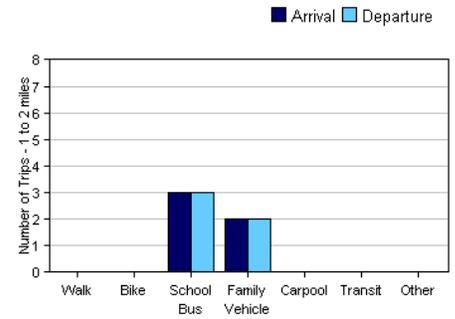
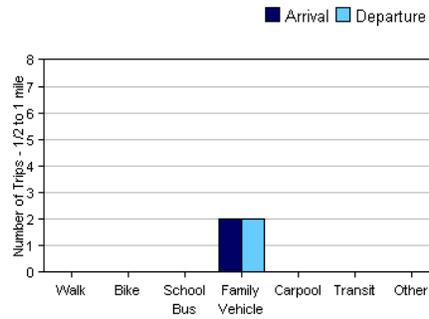
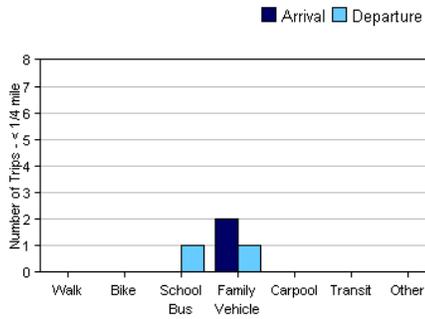
Time of Trip	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	19	0	0	11	8	0	0	0
Afternoon	19	0	0	9	10	0	0	0

No Response Morning: 0

No Response Afternoon: 0

Numbers rather than percents are displayed because the number of respondents for this question was less than 30.

Typical mode of school arrival and departure by distance child lives from school



Typical mode of school arrival and departure by distance child lives from school

School Arrival

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	2	0	0	0	2	0	0	0
1/4 mile up to 1/2 mile	0	0	0	0	0	0	0	0
1/2 mile up to 1 mile	2	0	0	0	2	0	0	0
1 mile up to 2 miles	5	0	0	3	2	0	0	0
More than 2 miles	10	0	0	8	2	0	0	0

Don't know or No response: 0

Numbers rather than percents are displayed because the number of respondents for this question was less than 30.

School Departure

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	2	0	0	1	1	0	0	0
1/4 mile up to 1/2 mile	0	0	0	0	0	0	0	0
1/2 mile up to 1 mile	2	0	0	0	2	0	0	0
1 mile up to 2 miles	5	0	0	3	2	0	0	0
More than 2 miles	10	0	0	5	5	0	0	0

Don't know or No response: 0

Numbers rather than percents are displayed because the number of respondents for this question was less than 30.

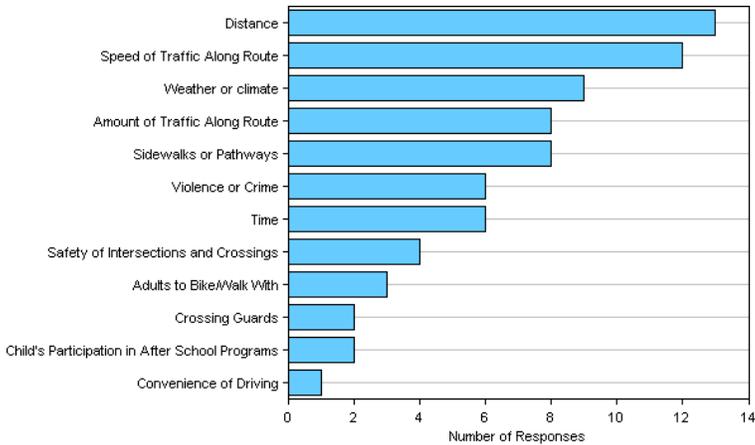
Number of children who have asked for permission to walk or bike to/from school by distance they live from school

Asked Permission?	Number of Children	Less than 1/4 mile	1/4 mile up to 1/2 mile	1/2 mile up to 1 mile	1 mile up to 2 miles	More than 2 miles
Yes	4	0	0	0	3	1
No	14	2	0	2	2	8

Don't know or No response: 1

Numbers rather than percents are displayed because the number of respondents for this question was less than 30.

Issues reported to affect the decision to not allow a child to walk or bike to/from school by parents of children who do not walk or bike to/from school



Issues reported to affect the decision to allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school

Issue	Child does not walk/bike to school	Child walks/bikes to school
Distance	13	0
Speed of Traffic Along Route	12	0
Weather or climate	9	0
Amount of Traffic Along Route	8	0
Sidewalks or Pathways	8	0
Violence or Crime	6	0
Time	6	0
Safety of Intersections and Crossings	4	0
Adults to Bike/Walk With	3	0
Crossing Guards	2	0
Child's Participation in After School Programs	2	0
Convenience of Driving	1	0
Number of Respondents per Category	18	0

No response: 1

Note:

--Factors are listed from most to least influential for the 'Child does not walk/bike to school' group.

Parents' opinions about how much their child's school encourages or discourages walking and biking to/from school

Level of support	Number of children
Strongly Encourages	0
Encourages	2
Neither	17
Discourages	0
Strongly Discourages	0

Parents' opinions about how much fun walking and biking to/from school is for their child

Level of fun	Number of children
Very Fun	0
Fun	4
Neutral	12
Boring	1
Very Boring	0

Parents' opinions about how healthy walking and biking to/from school is for their child

How healthy	Number of children
Very Healthy	5
Healthy	11
Neutral	1
Unhealthy	0
Very Unhealthy	0

Comments Section

SurveyID	Comment
1225451	We sometimes walk to the bus stop!
1225453	I do not feel comfortable allowing my children to walk to/from school alone and myself and my husbands schedules don't allow us to walk with them.
1225462	Maybe kids could walk a certain distance to a bus stop.
1225468	No sidewalks. Too dangerous. (coming from Peak Rd and South Wheelock Rd)
1225469	She has a younger sibling to help take care of. If she walks, I usually bring her to the post office to walk to school with friends.
1225458	Who trusts anyone here anymore, after Pat O'Hagan was murdered?!
1225459	This year my child has had sneakers and a water bottle stolen from his classroom. I highly doubt I would allow him to bring his bike to school.
1225463	I would never allow my child to walk/bike to school because of distance and safety factors - there are too many child abductions around!
1225464	We just live way too far from the school for walking and biking to ever be a possibility for my children at any age, but I do feel that walking/biking is a good thing and would not discourage it if we lived closer.
1225455	We live too far away! It's hard to tell if I would let my child walk/ride to school if we were in a different area - too many variables to think of! I would need to feel she was safe, probably either by visual of her all the way to school or by being with her personally.

Counts performed for NVDA by
 Transportation Systems Planning
 1 Bassy Street
 Lebanon, New Hampshire 03766

Site Code: 000005211401
 Station ID:
 VT ROUTE 122 SHEFFIELD
 NORTH OF MILLERS RUN SCHOOL ENTRANCE
 Latitude: -999' 0.000 South

Start Time	Mon 26-May-14	Tue 27-May-14	Wed 28-May-14	Thu 29-May-14	Fri 30-May-14	Average Day	Sat 31-May-14	Sun 01-Jun-14	Week Average
12:00 AM	5	1	3	3	*	3	*	*	3
01:00	1	1	1	4	*	2	*	*	2
02:00	2	1	0	1	*	1	*	*	1
03:00	2	3	2	3	*	2	*	*	2
04:00	0	2	4	6	*	3	*	*	3
05:00	6	23	23	22	*	18	*	*	18
06:00	7	55	58	58	*	44	*	*	44
07:00	20	80	71	90	*	65	*	*	65
08:00	35	62	71	49	*	54	*	*	54
09:00	48	58	55	59	*	55	*	*	55
10:00	61	47	41	*	*	50	*	*	50
11:00	66	41	57	*	*	55	*	*	55
12:00 PM	61	40	45	*	*	49	*	*	49
01:00	70	50	36	*	*	52	*	*	52
02:00	59	58	61	*	*	59	*	*	59
03:00	41	64	78	*	*	61	*	*	61
04:00	55	89	100	*	*	81	*	*	81
05:00	57	59	81	*	*	66	*	*	66
06:00	24	48	62	*	*	45	*	*	45
07:00	20	20	36	*	*	25	*	*	25
08:00	18	27	23	*	*	23	*	*	23
09:00	13	11	18	*	*	14	*	*	14
10:00	5	10	14	*	*	10	*	*	10
11:00	3	3	5	*	*	4	*	*	4
Day Total	679	853	945	295	0	841	0	0	841
% Avg. WkDay	80.7%	101.4%	112.4%	35.1%	0.0%				
% Avg. Week	80.7%	101.4%	112.4%	35.1%	0.0%	100.0%	0.0%	0.0%	
AM Peak	11:00	07:00	07:00	07:00		07:00			07:00
Volume	66	80	71	90		65			65
PM Peak	13:00	16:00	16:00			16:00			16:00
Volume	70	89	100			81			81
Grand Total	679	853	1631	1219	1122	1861	1002	867	1819
ADT		ADT 929		AAAT 929					

Site Code: 000005211401
 Station ID:
 VT ROUTE 122 SHEFFIELD
 NORTH OF MILLERS RUN SCHOOL ENTRANCE
 Latitude: -999' 0.000 South

Start Time	Mon 19-May-14	Tue 20-May-14	Wed 21-May-14	Thu 22-May-14	Fri 23-May-14	Average Day	Sat 24-May-14	Sun 25-May-14	Week Average
12:00 AM	*	*	*	3	6	4	11	8	7
01:00	*	*	*	2	2	2	3	1	2
02:00	*	*	*	0	1	0	1	2	1
03:00	*	*	*	2	1	2	5	1	2
04:00	*	*	*	2	7	4	2	3	4
05:00	*	*	*	19	13	16	7	6	11
06:00	*	*	*	60	54	57	12	10	34
07:00	*	*	*	77	75	76	32	26	52
08:00	*	*	*	64	66	65	70	31	58
09:00	*	*	*	41	62	52	65	64	58
10:00	*	*	*	43	60	52	74	69	62
11:00	*	*	52	43	53	49	85	74	61
12:00 PM	*	*	59	67	89	72	87	83	77
01:00	*	*	68	50	65	61	72	52	61
02:00	*	*	84	63	82	76	82	74	77
03:00	*	*	83	76	91	83	82	63	79
04:00	*	*	92	93	103	96	92	68	90
05:00	*	*	86	67	88	80	57	56	71
06:00	*	*	66	53	66	62	45	52	56
07:00	*	*	47	39	46	44	43	51	45
08:00	*	*	24	31	36	30	25	32	30
09:00	*	*	11	16	24	17	26	23	20
10:00	*	*	11	11	20	14	14	10	13
11:00	*	*	3	2	12	6	10	8	7
Day Total	0	0	686	924	1122	1020	1002	867	978
% Avg. WkDay	0.0%	0.0%	67.3%	90.6%	110.0%				
% Avg. Week	0.0%	0.0%	70.1%	94.5%	114.7%	104.3%	102.5%	88.7%	
AM Peak			11:00	07:00	07:00	07:00	11:00	11:00	10:00
Volume			52	77	75	76	85	74	62
PM Peak			16:00	16:00	16:00	16:00	16:00	12:00	16:00
Volume			92	93	103	96	92	83	90

NON-ENGINEERING STRATEGIES RESOURCE GUIDE

Strategy	E's	Advantages	Considerations	Resources
<p>Walking and Biking Safety Curriculum and/or Assembly</p> <p>These lessons can be held in the fall to promote Walk to School Day. Guest speakers teach the students pedestrian and bicycle safety skills that they can use when walking and biking to school.</p> <p>Instruction as a part of school curriculum is also vital to ensuring on-going learning of bicycle and pedestrian safety and development of skills.</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Education, Encouragement</p>	<ul style="list-style-type: none"> • Assures all children learn bicycle and pedestrian safety skills • Establishes habits that benefit children throughout their lives, regardless of whether they currently walk or bike to school • Establishes consistent messages for young pedestrians and bicyclists • Provides a refresher for parents if take home materials are provided in conjunction with the assembly. It's never too late to correct bad habits. • Events can make learning fun, and help strengthen community ties with event organizers and participants. 	<ul style="list-style-type: none"> • Best taught using a combination of methods, including one-time instruction (e.g. assemblies), multi-lesson classroom curricula, and skills practice (e.g. bicycle safety fairs). • Requires able and willing instructors • Should be age-appropriate • Bicycle safety education may require an outside instructor, e.g. a police officer. 	<ul style="list-style-type: none"> • Walk Smart/Bike Smart Vermont! http://healthandlearning.org/documents/WalkSmartBikeSmartFINAL2008_001.pdf • National Highway Traffic Safety Administration Pedestrian Safety Lessons http://www.nhtsa.gov/ChildPedestrianSafetyCurriculum • WalktoSchool.org - Classroom activities that encourage walking and biking. www.walktoschool.org/eventideas/classroom.cfm • Pedestrian Safer Journey: The National Highway Traffic Safety Association has created a video to help teach children pedestrian safety skills. http://www.pedbikeinfo.org/pedsaferjourney/ • Bikeology Curriculum: On-Bike curriculum with focus on K-12 that includes ways to encourage modeling from parents http://www.walkbiketoschool.org/node/50466 • See www.SafeRoutesVT.org for more resources

Strategy	E's	Advantages	Considerations	Resources
<p>Continue to Participate in Walk to School Day</p> <p>Walk to School Day is a one-day event that celebrates walking and biking to school.</p> <p>Generally this event is scheduled for the first full week in October along with Vermont Walk and Roll to School Day in May. Why not use this strategy multiple times a year?</p>	Education, Encouragement	<ul style="list-style-type: none"> • Excellent kick-off event for Safe Routes to School program • Generates enthusiasm for walking and biking • Way to raise community awareness about safety issues • Can be as simple as a few kids and parents meeting to walk to school or very elaborate celebrations • Can be folded into studies of international cultures as it is an international event • Date is flexible- to be counted by the National Center for Safe Routes to school the event need only take place before Dec 1. 	<ul style="list-style-type: none"> • Preparations for elaborate celebrations must begin several months in advance to allow time to identify partners, plan activities, and promote the event • Should provide bicycle and pedestrian safety information to children and parents • International Walk to School Day takes place in October but some schools organize multiple Walk to School Day (or “Walk and Roll Day”) events over the course of the school year (e.g. one in the fall and one in the spring). 	<ul style="list-style-type: none"> • U.S. Walk to School Day website (provides resources and event registration): www.walktoschool.org • International Walk to School Day website: www.iwalktoschool.org/ • Plan and promote your Walk to School Day event http://saferoutes.vermont.gov/sites/saferoutes/files/PDFs/How%20To%20-%20Special%20Events.pdf • Include students when it is too far or unsafe http://saferoutes.vermont.gov/sites/saferoutes/files/Including%20Students%20When%20It%27s%20Too%20Far%20or%20Unsafe%20VT.pdf • See Partner Resource CD for more materials
<p>Frequent Walker/Bicyclist Program or Walking Wednesdays</p> <p>Track and reward students who walk and bicycle to school. Can be an individual competition or a competition among classes.</p>	Encouragement	<ul style="list-style-type: none"> • Provides positive reinforcement for walking and bicycling. • Children respond to incentives. • Can include all students. • Can include walking and bicycling beyond the trip to school. 	<ul style="list-style-type: none"> • Necessary to identify a coordinator. • Establish a simple record-keeping system. • Establish age-appropriate goals. • Consider giving rewards to parents as well, since parents are often involved in the commute to school. 	<ul style="list-style-type: none"> • Frequent Walker Punch card template http://saferoutes.vermont.gov/sites/saferoutes/files/PDFs/VT_SRTS_Punchcard_v2_110825-1.png • Vermont Challenge: Walk Across America http://saferoutes.vermont.gov/sites/saferoutes/files/PDFs/The%20VT%20Challenge%20-%20Walk%20Across%20Vermont%21.pdf • Tips for creating a walking and bicycling route map http://saferoutes.vermont.gov/sites/saferoutes/files/PDFs/Tips%20for%20Creating%20Walking%20and%20Bicycling%20Route%20Maps.pdf • See Partner Resource CD for more materials

Strategy	E's	Advantages	Considerations	Resources
<p>Traffic Enforcement (Staff)</p> <p>This can be an ongoing program for school staff. This could work well in conjunction with PBIS.</p>	<p>Education, Enforcement, Encouragement</p>	<ul style="list-style-type: none"> • Crossing guards play an important role in helping children cross the street at key locations, reminding drivers of the presence of pedestrians, and making parents feel more comfortable about letting their children walk and bicycle to school. • Staff and crossing guards can also reward students with Paws of Praise in order to reinforce positive behavior. 	<ul style="list-style-type: none"> • Requires some training and coordination with crossing guards 	<ul style="list-style-type: none"> • Adult School Crossing Guard Guidelines (NCSRTS) http://guide.saferoutesinfo.org/crossing_guard/pdf/crossing_guard_guidelines_web.pdf • Florida School Crossing Guard Training Guidelines http://saferoutesinfo.org/program-tools/florida-school-crossing-guard-training-guidelines • Lessons from Florida's Crossing Guard Program http://saferoutesinfo.org/events-and-training/srts-webinars/lessons-floridas-crossing-guard-program • See Partner Resource CD for more materials

Strategy	E's	Advantages	Considerations	Resources
<p>Bicycle Safety Fair</p> <p>This is a single-day event that promotes bicycle safety. At the bicycle safety fair, students can borrow bicycles or bring their own.</p>	Education, Encouragement	<ul style="list-style-type: none"> • Events such as bike safety fairs make learning fun and can help strengthen community ties with event organizers and participants. • At the bicycle safety fair students learn safety skills such as how to properly wear a helmet and how to behave while bike riding. The bicycle safety fair can also have a closed “test course” for the students to ride along. This helps the students to practice in a safe environment and gain confidence in their decision-making skills. • Possible partners for this include the Caledonia County Sheriff’s Department or Kingdom Trails. 	<ul style="list-style-type: none"> • Requires able and willing instructors • Should be age-appropriate • Bicycle safety education may require an outside instructor, e.g. a police officer. • These events require planning and materials to share with students 	<ul style="list-style-type: none"> • Teaching a Bicycle Safety Fair in Vermont http://www.vtbikeped.org/what/VT_Safety_Fair_Curriculum.pdf • Bicycling Life page on bicycle safety fairs: http://www.bicyclinglife.com/SafetySkills/BicycleRodeo.htm • An organizer’s guide to bicycle safety fairs http://www.bike.cornell.edu/pdfs/Bike_Rodeo_404.2.pdf • Easy steps to properly fit a bicycle helmet http://www.nhtsa.gov/people/injury/pedbimot/bike/EasyStepsWeb/
<p>Walk Audit/Parent Surveys / Student tallies</p> <p>The team will meet annually (ideally in August before school starts) to review the accomplishments from the previous year and set new goals for the upcoming school year.</p>	Evaluation	<ul style="list-style-type: none"> • Establishes baseline information on student travel behavior and perceived barriers to walking and biking • Helps determine existing needs • Helps determine success of SRTS efforts and identify needed adjustments 	<ul style="list-style-type: none"> • Best to conduct initial surveys before SRTS measures have been implemented • Requires teacher buy-in and administrative organization • Getting parents to fill out and return surveys can be a challenge. Follow up is necessary. Consider a contest among classes for highest rate of return. 	<ul style="list-style-type: none"> • Student In-Class Travel Tally Form: http://www.saferoutesinfo.org/resources/evaluation_student-in-class-travel-talley.cfm • Parent Survey Form: http://www.saferoutesinfo.org/resources/evaluation_parent-survey.cfm • Instructions for Survey Administration: http://www.saferoutesinfo.org/resources/evaluation_instructions.cfm • Instructions for Data Entry: http://www.saferoutesinfo.org/resources/evaluation_cover-sheets.cfm

Strategy	E's	Advantages	Considerations	Resources
<p>Walking School Buses/ Bicycle Trains</p> <p>Walking school buses and bicycle trains are adult supervised groups of students walking and/or bicycling to school.</p>	<p>Education, Encouragement</p>	<ul style="list-style-type: none"> • Adult supervision on the walk to school • Can be loosely structured or highly organized • Can include a meeting point in a parking lot so children and parents who must drive can participate. • Adults can rotate who will lead each time. 	<ul style="list-style-type: none"> • Need to identify routes where conditions support walking and there is sufficient demand for supervised walking • Requires parents willing to walk with children and learn about how Walking school buses are organized and conducted. • More organized structure requires considerable planning 	<ul style="list-style-type: none"> • How to start a walking school bus or bike train http://guide.saferoutesinfo.org/walking_school_bus/pdf/wsb_guide.pdf
<p>Drive Safe Campaigns</p> <p>Some parents are not aware of how their driving behavior can put walking students at risk. This teaches parents how their unsafe driving habits can put their children in danger.</p>	<p>Education</p>	<ul style="list-style-type: none"> • Has the ability to effect positive change in the community and around the school • Improves the safety of the walking environment • Good drivers can help to set the example for good behavior. This is especially true for helping to control speeds. 	<ul style="list-style-type: none"> • This requires a person to organize and administer the campaign. • May not be effective at schools where parent/teacher organizations are weak • Law enforcement officers would be great at speaking at the campaign events. Sometimes, due to their heavy schedules that can be difficult to pin down. • A good way to contact parents is at back to school night and PTA meetings. Starting at the beginning of the year helps to prevent bad habits from starting. Law enforcement officers (or other teachers) can hold a brief assembly to explain the dangers of unsafe driving in school areas. • Law enforcement officers can provide a demonstration of how difficult it is to quickly stop a moving vehicle at 50, 40 and 30 mph. The National Center has information on how the speed of the vehicle can affect the severity of injury that the pedestrian experiences in a crash. 	<ul style="list-style-type: none"> • Driving Around Schools: Keeping Children Safe http://apps.saferoutesinfo.org/lawenforcement/resources/driving_tips.cfm • Parents, Avoid Becoming a Traffic Hazard http://www.aaamidatlantic.com/FetchFile.ashx?id=e55bfa26-a70d-4e17-afde-073b86cc9975

Strategy	E's	Advantages	Considerations	Resources
<p>Crossing Guard Appreciation Day</p> <p>Crossing guards help our children cross the road safely in the mornings and afternoons, in all weather conditions. Remind them that you appreciate their service and dedication. Students can create thank you cards that they deliver themselves during their walks home, or teachers and administrators can honor them formally during a school assembly.</p>	<p>Encouragement</p>	<ul style="list-style-type: none"> • Maintains a positive relationship between the crossing guards and the school/community. • Can inspire crossing guards to continue to be reliable, safety figures. • Creates an opportunity to remind students why it is important to practice safe walking skills. 	<ul style="list-style-type: none"> • Requires coordination between the crossing guards, school administrators and school instructors. • May require materials to create the thank-you cards. • Is most effective with newsletter and in-school announcements. • Relatively inexpensive strategy 	<ul style="list-style-type: none"> • Active Transportation Alliance webpage for Crossing Guard Appreciation Day http://www.activetrans.org/crossingguard

SNOW REMOVAL BEST PRACTICES

Prompt and effective snow, ice, and slush clearance on sidewalks along Safe Routes to School is critical for maintaining safe biking and walking conditions. Snow removal of bicycle and pedestrian accommodations that are designated school routes should be planned for. According to the VT Pedestrian and Bicycle Facility Design Manual Section 10.5.1, local policies should treat the clearance of snow from walkways as equally important as clearance of snow from roadways in order to maintain year-round accessibility.

Guidelines

The responsibility of all snow and ice clearance generally falls upon the property owner of the facility. A municipality's highway department is typically responsible for snow and ice removal on roads and sidewalks on public property. Private roads and sidewalks on private property are the responsibility of the property owner.

A clear, unobstructed pathway at a minimum of 48" wide should be provided on all sidewalks, curb ramps, and through crosswalks. Snow, slush, and ice should be cleared from sidewalks, to provide a clear path of 48", ideally, within 12 hours after a storm event. Designated portions of the roadway for bicycle use should also be cleared since, even in winter, some experienced bicyclists commute by bicycle.

Pedestrian walkways, curb ramps, and crosswalks or bicycle facilities should not be used for areas of snow storage. Additional consideration should also be taken to maintain adequate sight distances at all intersections and to prevent snow storage from building up too close to walkways.

Paved shared-use paths that are designated routes to school should be kept clear of snow so that students can walk to school year-round. Snow clearance is not a consideration for natural surface paths that are used for winter activities which also allow students to cross-country ski or snow-shoe to school.

Recommendations

The following six basic recommendations can assist a community in developing a strategy to improve sidewalk snow and ice clearance.

1. Create a norm of snow and ice clearance through social awareness campaigns.
2. Identify a municipal point person for snow removal.
3. Determine priority sidewalks and paths for snow clearance.
4. Improve monitoring and enforcement.
5. Design sidewalks for easier snow removal.

6. Train municipal and private snow plowing personnel on the guidelines for pedestrian and bicycle facility clearance (i.e., 48" clear path and priority routes.)

Monitoring and Enforcement

There are three primary ways in which the clearance of sidewalks can be monitored and enforced;

1. Identify who monitors and enforces.
2. Define penalties and how they will be enforced.
3. Implement a social awareness campaign.

TYPICAL INFRASTRUCTURE RECOMMENDATIONS

The following infrastructure recommendations are typical treatments used in SRTS projects. These recommendations may or may not be included in this travel plan. The basic information is provided to give an overall understanding and implementation guidance on each treatment.



Rectangular Rapid Flashing Beacons:

Rectangular rapid flashing beacons (RRFB), as shown to the left, are warning beacons used to increase visibility of students and all pedestrians as they cross the roadway at uncontrolled crosswalks. This type of signal is pedestrian-activated, i.e., the signal will only flash if a pedestrian has pushed a button, indicating that they need to cross the street. Any proposed RRFB locations need to meet current guidance provided in the interim approval of the Manual on Uniform Traffic Control Devices (MUTCD). For proposed uncontrolled crosswalks on state maintained roads, VTrans approval and justification are needed.

Curb Extensions:

Curb extensions, as shown below, are recommended to reduce pedestrian crossing distances (and thus exposure to traffic) and to slow motor vehicle turning speeds at intersections. Curb extensions located along school bus routes should effectively calm traffic, but not impede buses from making the turn. Design considerations should include the appropriate design vehicle, maintenance concerns, and snow plow accommodations depending on the roadway jurisdiction.



Curb Radius Reductions:

Curb radius reductions are recommended to slow motor vehicle turning speeds and to reduce pedestrian crossing distances (and thus exposure to traffic). Curb radius reductions involve

tightening the motor vehicle turning radius at an intersection, as shown to the left, without extending the curb line into a parking lane. Curb radius reductions located along school bus routes should effectively calm traffic but not impede buses from making the turn. Design considerations for curb radius reductions include the appropriate design vehicle depending on the roadway jurisdiction and ADA compliance.

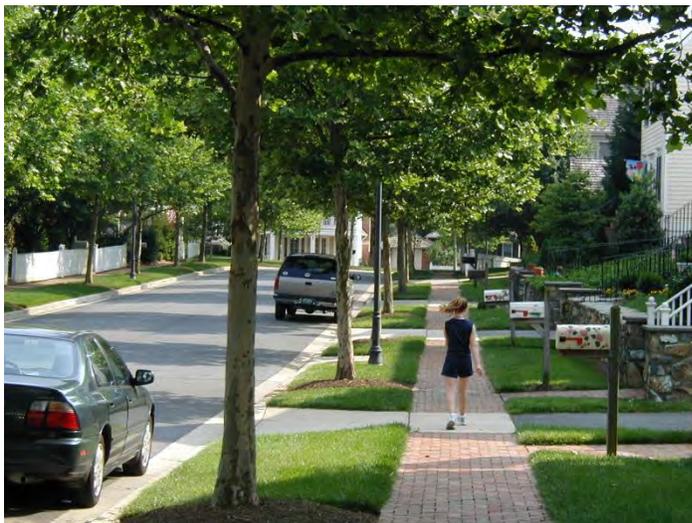
High Visibility Crosswalks:

High visibility crosswalk striping improves the visibility of pedestrians to motorists. Different striping patterns can be used and the most common patterns are variations of the ladder style, shown right. Reflective durable materials should be used to resist decay.



Sidewalks and buffers:

One of our long-term goals is to establish a well-connected sidewalk network throughout the neighborhoods so that families can walk for more of their daily trips, rather than drive. Sidewalks are the most effective when they include a buffer. This buffer increases pedestrian comfort and safety and can also serve as a place for pedestrian “overflow”, especially closer to the school where groups of walkers are largest. Based on Vermont Pedestrian and Bicycle



Facility Planning and Design Manual, the preferred design for sidewalks is a minimum six foot wide sidewalk with a minimum two foot wide buffer for local roadways with curbs. For downtowns and village centers on roadways with curbs, the preferred design for sidewalks is a minimum eight foot wide sidewalk with a minimum four foot wide buffer. For roadways without curbs, the buffer should be a minimum of five feet. Available right of way will impact the ultimate design of the sidewalk.

School Zone Identification:

School pavement markings are recommended to alert motorists that they are entering a school zone where pedestrians may be present both along and crossing the roadway. New pavement markings can work with existing school zone signs to reinforce the message to motorists about the school zone. The detail provided in the figure below is an excerpt of the MUTCD.



Speed Feedback Signs:

Communities may use a mobile “speed trailer” that can be placed in locations where motorists exceed the speed limit often enough that passive enforcement is appropriate. Permanently installed feedback signs, shown right, provide ongoing information to motorists about the speed at which they are traveling. SRTS recommended any potential feedback signs be strategically located at main access points.



For towns interested in reducing the speed limit of a roadway, an engineering study needs to be conducted by the town. Approval from VTrans is needed for state maintained roads.

Pedestrian Refuge Island:

A Pedestrian refuge island, as shown right, may be used to narrow the roadway, reduce motor vehicle speeds, and improve pedestrian crossings. In locations with crosswalks, these islands improve pedestrian safety and access by reducing crossing distances and enable pedestrians to cross roadways in two stages. Pedestrian refuge islands should be used on multi-lane roadways or roadways with insufficient vehicular gaps to pedestrians to safely cross. Prior to design, a gap study should be conducted. Other considerations for pedestrian refuge islands include ADA compliance, maintenance concerns, and snow plow accommodations.

