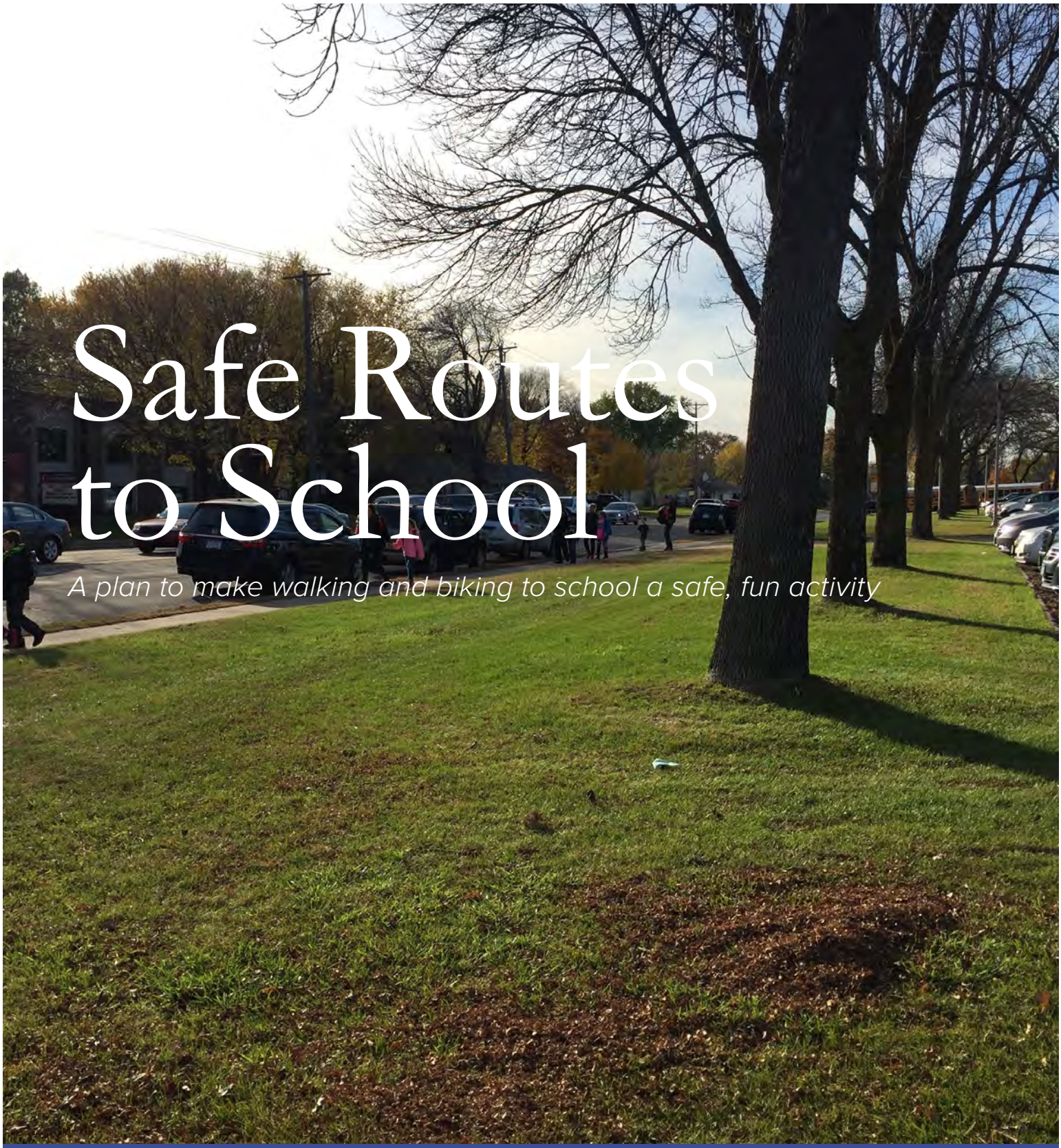

# Safe Routes to School

*A plan to make walking and biking to school a safe, fun activity*

## HAYES ELEMENTARY

Fridley Public Schools, Fridley, MN

JUNE 2017

DEPARTMENT OF TRANSPORTATION

MINNESOTA SAFE ROUTES TO SCHOOL

# ACKNOWLEDGMENTS

The following key people/entities participated in the Safe Routes to School (SRTS) plan efforts for Fridley Public Schools. Their creativity, energy, and commitment were critical to the success of this effort.

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MINNESOTA SAFE ROUTES TO SCHOOL

DEPARTMENT OF TRANSPORTATION

alta PLANNING + DESIGN

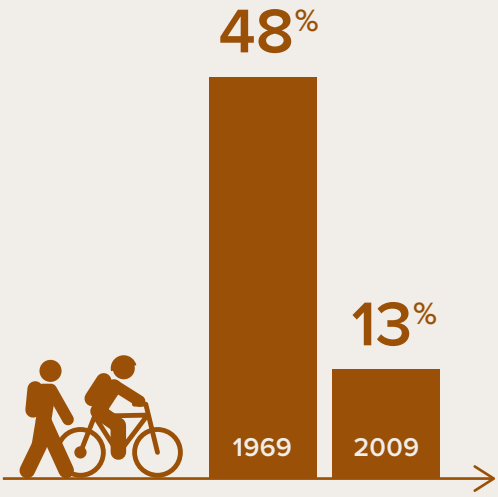
community design group

# Contents


# 01

## INTRODUCTION + CONTEXT

# Why Safe Routes to School?




THE PERCENTAGE OF CHILDREN WALKING OR BIKING TO SCHOOL HAS DROPPED PRECIPITOUSLY WITHIN ONE GENERATION

MOST KIDS ARE NOT GETTING ENOUGH PHYSICAL ACTIVITY

ROADS NEAR SCHOOLS ARE CONGESTED, DECREASING SAFETY AND AIR QUALITY FOR CHILDREN

**KIDS WHO WALK OR BIKE TO SCHOOL:**

- Arrive alert and able to focus on school
- Are more likely to be a healthy body weight
- Are less likely to suffer from depression and anxiety
- Get most of the recommended 60 minutes of daily physical activity during the trip to and from school
- Demonstrate improved test scores and better school performance*

**THE VICIOUS CYCLE OF INCREASED TRAFFIC LEADING TO REDUCED WALKING AND BICYCLING:**

- Fewer students walking & biking to school
- More parents driving children to school
- Increased traffic at and around school
- Rising concern about safety of walking & biking

*More information, including primary sources, can be found at http://guide.saferoutesinfo.org


# The Six Es

Safe Routes to School programs use a variety of strategies to make it easy, fun and safe for children to walk and bike to school. These strategies are often called the “Six Es.”

### Education
Programs designed to teach children about traffic safety, bicycle and pedestrian skills, and traffic decision-making.

### Encouragement
Programs that make it fun for kids to walk and bike, including incentive programs, regular events or classroom activities.

### Engineering
Physical projects that are built to improve walking and bicycling conditions.

### Enforcement
Law enforcement strategies aimed at improving driver behavior near schools and ensuring safe roads for all users.

### Evaluation
Strategies to help understand program effectiveness, identify improvements, and ensure program sustainability.

### Equity
Is an overarching concept that applies to all of the E’s, ensuring that all residents have access to and can take advantage of the resources provided through the program.

# Navigating this Plan

Below is a roadmap for navigating the way through this plan. Use it to find all the information you need for helping students be safer and more active!

### Programs

Getting kids to walk and bike to school requires fun and engaging programs for schools and families. Turn to this section for recommended events, activities, and strategies that will get students moving.

### Infrastructure

Ensuring the safety of students on their trips to and from school means upgrading the streets. See this section for suggestions to improve the safety, comfort and convenience of walking and biking, including paint, signage, and signals.

### How to get involved

The more people who are involved with a local Safe Routes to School process, the more successful it will be! Use this section to find out how you can be a part of this important initiative.

### Appendices

There is more information available than could fit in this plan. For additional resources, turn to this section.


ADDITIONAL SRTS PLANNING IN THE AREA

### FURTHER READING

Fridley and Columbia Heights have engaged in SRTS planning over the past few years. In 2013, SRTS plans were completed for Columbia Academy Middle School, Highland Elementary School, and Valley View Elementary School in Columbia Heights. Additionally, a plan was completed for North Park Elementary School in Fridley.

# The Vision

In the spring of 2016, Fridley Public Schools (ISD 14) was awarded a Minnesota Department of Transportation (MnDOT) Safe Routes to School (SRTS) planning assistance grant to develop an SRTS Plan. In addition to Hayes Elementary, R.L. Stevenson Elementary and Fridley Middle School were selected to receive this planning assistance.

This plan was made possible by support from MnDOT and developed in coordination with the city and the school district. It is the product of several meetings and visits to Fridley, plus discussions with city employees, teachers, school staff, students, and community members. The plan offers recommendations on how to make it easy, fun and safe for children to walk and bike to school.

The following pages offer both program and infrastructure suggestions - all of which fall under the 6 E's model described on page 6. All recommendations are intended to be on an approximate five-year timeline. While not all of these recommendations can be implemented immediately, it is important to achieve shorter-term successes while laying the groundwork for progress toward some of the larger and more complex projects.

APPENDIX

### FURTHER READING

The main body of this plan is intended to be concise in an effort to provide the most pertinent information to the reader. There are several resources in the appendix section for those interested in learning more about SRTS, including specific roles for implementing SRTS, the SRTS planning process at a glance, existing conditions, and talking points to effectively communicate messages related to SRTS.


# Hayes Elementary in Context

Hayes Elementary sits approximately in the center of Fridley along Mississippi Street NE, a key west-east artery through town. University Avenue NE runs to the west of campus and Highway 65 NE runs to the east of campus, both of which serve as north-south thoroughfares. During the 2016-2017 school year, there were 571 students enrolled. The school draws students from within the City of Fridley as well as students who reside within the Northwest Suburban Integration School District who may choose to open enroll within the eight district consortium (about 40% open enroll overall; see maps in the Appendix L).

Based on 2016 surveys, the majority of parents report their children traveling to and from school by family vehicle (52.3%) or school bus (36.4%), while a significant portion walk (11.4%) and none bike. These percentages vary by distance from school. No students living within a half mile of school report biking to school, 34.6% walk to school, and 65.4% report receiving a ride in a family vehicle. As the distance from school increases to one mile or greater, the share of walking and family vehicle (48.3%) trips decreases, and school bus trips increase (50%). See the appendix for in-person observations about student travel modes.

Mississippi Street NE is a significant barrier to walking and biking to Hayes Elementary. Between 2006 and 2015, four crashes involving vehicles and a bicyclist or pedestrian occurred on Mississippi Street NE; one directly south of school, one at 7th Street NE, and two at 5th Street NE. Another crash occurred at Madison Street NE directly north of school. Sixty-five percent of parents reported distance and 59% reported the safety of intersections and crossings affected their decision to allow their children to walk or bike to school.

APPENDIX

## FURTHER READING

The summary on this page takes information from a more detailed existing conditions report found in the appendix. There you'll find a report that talks about how students and parents report traveling to and from school, a map showing pedestrian and bicyclist-involved crashes, and a map of residences of students who attend Hayes Elementary. This information helped planners and community stakeholders develop the best strategies for increasing safety and comfort for students walking and biking to school.

# 02

## PROGRAMS

# Introduction to Programs

*The Safe Routes to School movement acknowledges that infrastructure changes are a necessary but insufficient condition for shifting school travel behavior. Programs are a necessary component of any successful SRTS plan.*

While engineering improvements such as sidewalks, crosswalks, and bikeways are important, equally important are **education** programs to give children and families basic safety skills, **encouragement** programs to highlight walking and bicycling to school as fun and normal, **enforcement** against unsafe and illegal motorist behavior, and **evaluation** of the impact of investments and non-infrastructure efforts. Often, programs that help to get more kids walking and biking lead to increased public support for infrastructure projects - they can be an important first step towards building out the physical elements that make walking and biking safer and more comfortable. And relative to certain infrastructure projects, most programs are very low cost.

# Existing Programs

The City of Fridley, Fridley Public Schools, and Hayes Elementary have actively been working towards providing safe and inviting spaces around the city and the school campus for students. This foundation of encouraging student travel safety is valuable for expanding programs to encourage more students to walk and bike. Here are a few programs and services that already exist in Fridley and at Hayes Elementary:

- Police Department provides a bike helmet clinic and sells bike helmets at a discount
- Wellness programs and encouragement from school staff
- Staggered departure times and separated by grade
- Summer safety camp with police and fire departments
- Partnership with Allina Health and Free Bikes 4 Kidz for bike giveaways
- Partnership with Allina Health and Bikes4Kids (Ham Lake) to donate repaired, used bikes
- Targeted enforcement by Fridley Police Department
- Crossing guards
- Safety communication sent home to parents (see www.fridley.k12.mn.us/page.cfm?p=2799)
- City prioritizes snow maintenance on sidewalks near schools
- Bike Rodeo for seniors (not at the school)

# Program Recommendations

The following programs were identified as priority programs by the local SRTS team for Hayes Elementary during the SRTS planning process. These programs were selected to meet the interest and needs of the school community in the near term (one to five years).

Each recommended program shows the “E” it falls under, plus suggested lead, support, and priority.

APPENDIX

## FURTHER READING

For a complete list of all potential programs and descriptions, see http://mnd-otsrts.altaprojects.net/

# Recommended Programs List

| PROGRAM | WHICH "E"? | PROGRAM LEADER | PROGRAM SUPPORT | PRIORITY |
|---|---|---|---|---|
| **Bus Drop and Walk/Park and Walk**[1] | Encouragement | Fridley Public Schools | School staff | Short term |
| **Walk to School Day** | Encouragement | Fridley Public Schools | Parents, school staff | |
| **Law Enforcement**[2] | Enforcement | Fridley Police Department | City of Fridley | |
| **Bike Rodeo**[3] | Education | Fridley Community Education | Fridley Police Department | |
| **Walking route maps** | Education/ Encouragement | Fridley Planning Department | Fridley Public Schools | Medium term |
| **Walking School Bus** | Encouragement | Fridley Public Schools | Parents, school staff | |
| **Walk! Bike! Fun! Curriculum** | Education | Fridley Public Schools | School staff | |

**REFERENCES AND NOTES**

1 Identified as a priority by School District transportation director

2 Work with officers to do observations and enforcement, and provide a consistent, visible presence over several weeks at a time; recommended to do observations and enforcement on Mississippi St in particular; evaluate before and after infrastructure improvements to compare driver behavior (coordinate with City of Fridley)

3 A program similar to a student bike rodeo is currently offered to seniors in the city

EVALUATION

## PARENT SURVEYS AND STUDENT TRAVEL TALLIES

There are two great tools to evaluate all the SRTS work in your community:

**Parent Surveys:** Recommended to be done once every 2-3 years. A hard copy survey or link to the survey can be sent to parents which asks their perceptions of walking and biking to school.

**Student Travel Tally:** Recommended to be done fall and spring of every year. These in-class tallies ask students how they travel to and from school.

More information on both the parent survey and the student travel tally can be found at http://guide.saferoutesinfo.org/evaluation/

# Program Descriptions

The following descriptions provide more information about the recommended programs found in the table on the previous page.

## Bus Drop and Walk/Park and Walk

This program is designed to give those who ride the bus or commute with a parent a chance to get physical exercise before school. School administration should choose a location a quarter to half mile away from school where drop off from buses and parent vehicles can occur on a single day. Not all students are able to walk or bike the whole distance to school; they may live too far away or their route may include hazardous traffic situations. This program allows students who are unable to walk or bike to school a chance to participate in Safe Routes to School programs.

**Additional Resources**
National Safe Routes to School Guide: http://guide.saferoutesinfo.org/encouragement/park_and_walk.cfm

## Walk/Bike to School Day

Walk and Bike to School Day is an international event that attracts millions of participants in over 30 countries in the fall. The event encourages students and their families to try walking or bicycling to school. Parents and other adults accompany students, and staging areas can be designated along the route to school where groups can gather and walk or bike together. These events are often promoted through press releases, backpack/folder/electronic mail, newsletter articles, and posters. Students can earn incentives for participating or there is a celebration at school following the morning event. These events can be held for more than a day,

**Additional Resources**
MnDOT Walk and Bike to School Day: http://www.dot.state.mn.us/mnsaferoutes/programs/walk_to_school_day.html

## Bike Rodeo

Bicycle Rodeos are events that offer bicycle skills and safety stations for children - and sometimes parents - to visit (e.g., obstacle course, bicycle safety check, helmet fitting, instruction about the rules of the road, etc.). Bicycles rodeos can be held as part of a larger event or on their own, and either during the school day or outside of school. Adult volunteers can administer rodeos, or they may be offered through the local police or fire department.

**Additional Resources**
An Organizer's Guide to Bicycle Rodeos: http://www.bike.cornell.edu/pdfs/Bike_Rodeo_404.2.pdf

## Walking Route Maps

Route maps show signs, signals, crosswalks, sidewalks, paths, crossing guard locations, and hazardous locations around a school. They identify the best way to walk or bike to school. Liability concerns are sometimes cited as reasons not to publish maps; while no route will be completely free of safety concerns, a well-defined route should provide the greatest physical separation between students and traffic, expose students to the lowest traffic speeds, and use the fewest and safest crossings.

**Additional Resources**
National Safe Routes to School Guide: http://guide.saferoutesinfo.org/engineering/school_route_maps.cfm


## Walking School Bus

A Walking School Bus is a group of children walking to school with one or more adults. Parents can take turns leading the bus, which follows the same route every time and picks up children from their homes or designated bus stops at designated times. Ideally, buses run every day or on a regular schedule so families can count on it, but they often begin as a one-time pilot event. A Walking School Bus can be as informal as a few parents alternating to walk their children to school, but often it is a well-organized, PTA-led effort to encourage walking to school.


**Additional Resources**
http://www.saferoutespartnership.org/sites/default/files/resource_files/step-by-step-walking-school-bus.pdf

## Walk! Bike! Fun! Curriculum

Pedestrian safety education aims to ensure that every child understands basic traffic laws and safety rules. It teaches students basic traffic safety, sign identification, and decision-making tools. Training is typically recommended for first- and second-graders and teaches lessons such as “look left, right, and left again”. Curriculum often includes three parts: in-class lessons, mock street scenarios, and on-street practice. Walk! Bike! Fun! includes lessons for both safe walking and biking, although the latter is recommended for students in fifth grade and older. This curriculum was developed by The Bicycle Alliance of Minnesota with support from the Minnesota Department of Transportation and Blue Cross Blue Shield of Minnesota. It teaches safe traffic behavior through classroom activities and on-the-streets skills practice.


**Additional Resources**
Minnesota Walk! Bike! Fun!: http://www.dot.state.mn.us/saferoutes/pdf/toolkit/walk-bike-fun-curriculum.pdf

# 03

# INFRASTRUCTURE

# Introduction to Infrastructure

*In addition to program recommendations, changes to the streetscape are essential to making walking and biking to school safer and more comfortable.*

The initial field review and subsequent meetings yielded specific recommendations to address the key identified barriers to walking and bicycling at Hayes Elementary.

This plan does not represent a comprehensive list of every project that could improve conditions for walking and cycling in the neighborhood, but rather the key conflict points and highest priority infrastructure improvements to improve walking and cycling access to the school. The recommendations range from simple striping changes and school signing to more significant changes to the streets, intersections and school infrastructure.

All engineering recommendations are shown on the Recommended Infrastructure Improvements Map on page 19 and described in the table on page 20. It should be noted that funding is limited and all recommendations made are planning-level concepts only. Additional engineering studies will be needed to confirm feasibility and final costs for projects.

APPENDIX

### FURTHER READING

For a complete list of infrastructure to increase bicyclist and pedestrian safety and comfort, turn to Appendix H. The toolkit found here will help you brainstorm additional improvements for Fridley.

WINTER MAINTENANCE

### FURTHER READING

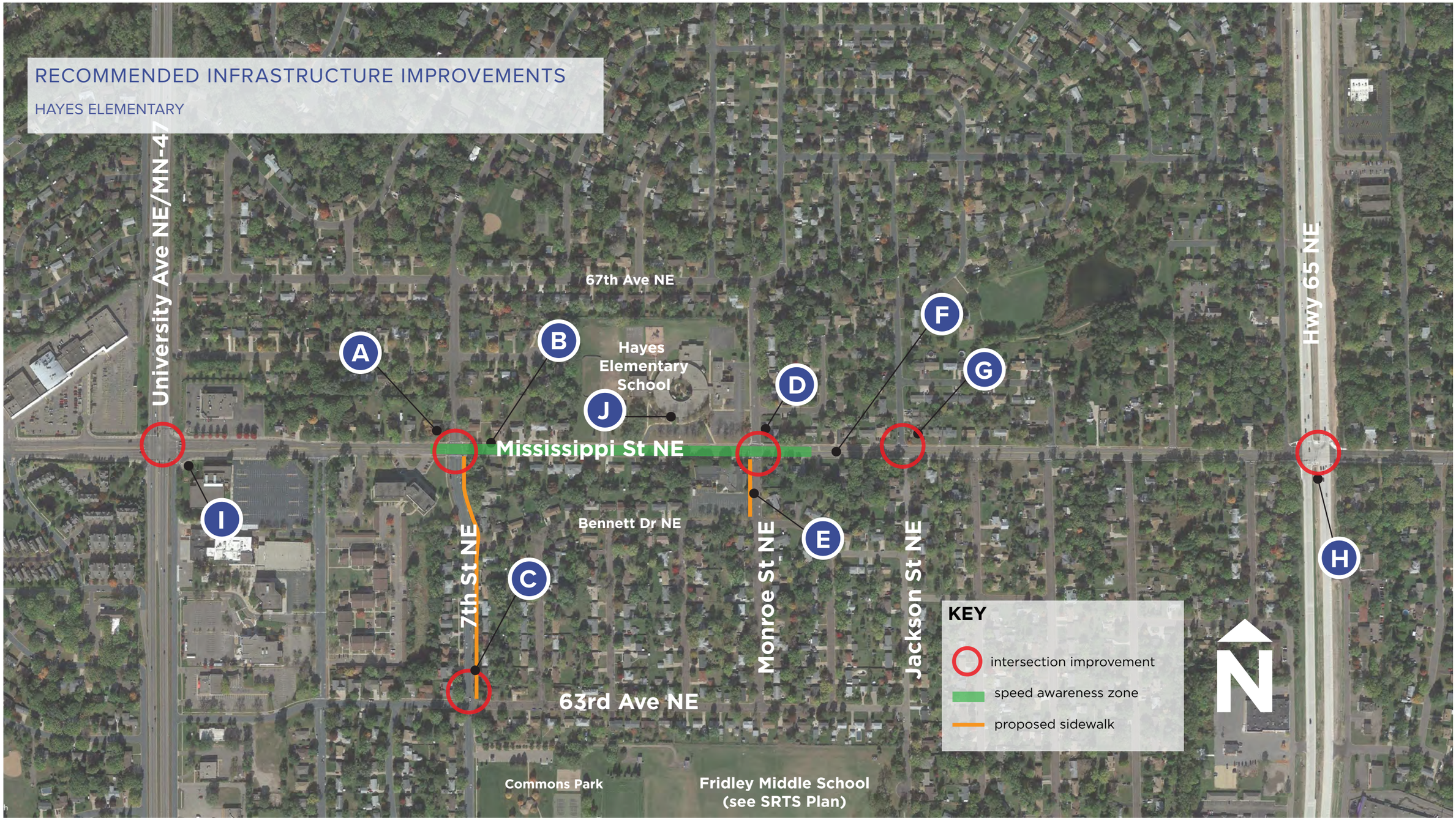
In colder climates, it is important to consider how winter can affect the safety and comfort for youth walking and biking to school. See Appendix J for information related to winter maintenance that will allow kids to stay active and healthy year round.

*View of Mississippi St NE, looking west from Monroe St. Four lanes of traffic makes crossing for children unsafe and uncomfortable.*


*Looking west on the sidewalk adjacent to Mississippi St NE. Private vehicles are not allowed in the Hayes Elementary parking lot during arrival and dismissal.*

# RECOMMENDED INFRASTRUCTURE IMPROVEMENTS

## HAYES ELEMENTARY

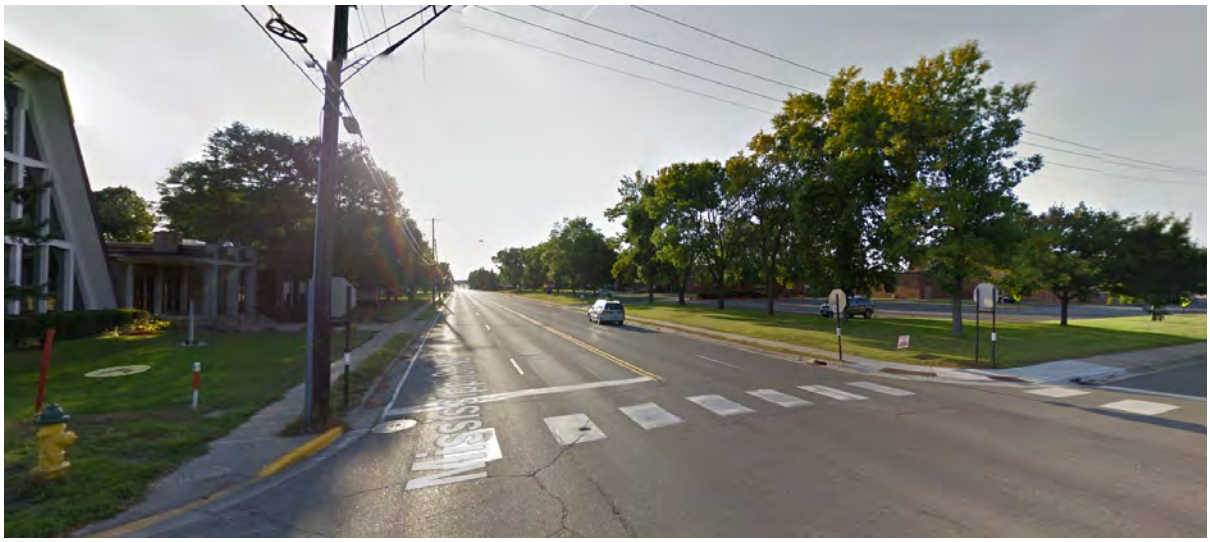


# Infrastructure Recommendations

| | LOCATION | PROBLEM/ISSUE | POTENTIAL SOLUTION/ RECOMMENDATION | ANTICIPATED OUTCOME | LEAD | PRIORITY |
|---|---|---|---|---|---|---|
| A | Mississippi St NE and 7th St NE | Long crossing distances, inadequate pedestrian landing areas | Install curb extensions to shorten crossing distance of Mississippi; construct ADA compliant curb ramps where not present | Increased safety, comfort, and visibility of pedestrians crossing; help to guide pedestrians and encourage more people to walk | Anoka County with City of Fridley | High |
| B | Mississippi St NE between 7th St NE and Monroe St NE | Drivers are traveling at high speeds adjacent to school | Create a speed awareness zone through increased enforcement, speed feedback signs, traffic calming, and posted decreased speed limits | Increased awareness of school zone, decreased vehicle speeds, safer and more comfortable environment for people walking and biking | Anoka County | High |
| C | 7th St NE and 63rd Ave NE | Missing sidewalk connections north to Mississippi, no landing areas at corners | Construct ADA compliant curb ramps; install landings and high visibility crosswalks to cross 63rd and to connect to existing sidewalk network on 7th; install sidewalk on the east side of 7th between 63rd and Mississippi | More comfortable and legible intersection crossing | City of Fridley | Low |
| D | Mississippi St NE and Monroe St NE | Long crossing distances | Install curb extensions | Increased safety, comfort, and visibility for people crossing Mississippi St | Anoka County with City of Fridley | High |
| E | Monroe St, between Mississippi St NE and Bennett Dr | Missing sidewalks on Monroe St | Install sidewalk on west side of Monroe St between Mississippi St and Bennett Dr | Help to guide pedestrians and encourage more people to walk south of Mississippi St | City of Fridley | Low |
| F | Mississippi St NE from Hwy 65 to University Ave NE | Drivers are traveling at high speeds and introduce “hidden threat” situations at crossings | Reconfigure street from four lanes to three lanes; install traffic calming; install bicycle facilities | Increased safety and comfort for people walking and bicycling | Anoka County | High |
| G | Mississippi St NE and Jackson St NE | Drivers not accustomed to pedestrians crossing; not looking for pedestrians in crosswalk | Install curb extensions, RRFB, high visibility crosswalk on Mississippi | Increased visibility of pedestrians; slower vehicle speeds; increased safety and comfort for people walking | Anoka County with City of Fridley | Medium |
| H | Mississippi St NE and Hwy 65 | Long crossing distances; little separation between motor vehicles and people crossing; drivers not accustomed to pedestrians crossing; high motor vehicle speeds | Reconfigure intersection to reduce corner radii; install advance stop bars; install leading pedestrian interval (LPI) | Safer and more comfortable roadway crossing | MnDOT with Anoka County | Medium |
| I | Mississippi St NE and University Ave NE | Long crossing distances; little separation between motor vehicles and people crossing; drivers not accustomed to pedestrians crossing; multiple motor vehicle access points; high motor vehicle speeds | Reconfigure intersection to install protected median crossing islands; eliminate vehicle access to frontage road; reduce corner radii; install advance stop bars; install leading pedestrian interval (LPI) | Safer and more comfortable roadway crossing | MnDOT with Anoka County | High |
| J | Hayes Elementary campus, near primary entrance/exit on Mississippi St NE | Current bike parking is hidden, unsecure, and on an unpaved area; design of current racks does not meet best practice; more parking capacity needed | Install bicycle parking that meets the guidance shown in Appendix I. | More people bicycling to school | Fridley Public Schools | High |

## RECOMMENDED IMPROVEMENTS

Concept illustrations of selected improvement areas



**Recommendations D & F**. *Mississippi St NE at Monroe St NE. Current (top) and recommended (bottom). High visibility cross-walks, curb extensions and a four to three lane conversion of Mississippi St. Coordinate with County plans to implement a road diet on this corridor.*

# 04

# HOW TO GET INVOLVED

# Using this Plan

*At the heart of every successful Safe Routes to School comprehensive program is a coordinated effort by parent volunteers, school staff, local agency staff, law enforcement and community advocates, such as public health.*

This plan provides an overview of Safe Routes to School with specific recommendations for a 6 E's approach to improve the safety and the health and wellness of students. The specific recommendations in this plan are intended to support improvements and programs over the next 5 years. These recommendations include both long- and short-term infrastructure improvements as well as programmatic recommendations.

It should be noted that not all of these projects and programs need to be implemented right away to improve the environment for walking and bicycling to school. The recommended projects and programs listed in this plan should be reviewed as part of the overall and ongoing Safe Routes to School strategy. Some projects will require more time, support, and funding than others. It is important to achieve shorter-term successes while laying the groundwork for progress toward some of the larger and more complex projects.

# Who are You?

Successful programs are achieved through the coordinated efforts of parent volunteers, school staff, local agency staff, law enforcement and community advocates, such as public health. Each partner has a key role to play in contributing to a plan's success. The following paragraphs highlight the unique contributions of key partners in Safe Routes to School.

## I AM A PARENT

Parents can use this report to understand the conditions at their children's school and to become familiar with the ways an SRTS program can work to make walking and bicycling safer. Concerned parents or city residents have a very important role in the Safe Routes to School process. Parent groups, both formal and informal, have the ability and the responsibility to help implement many of the educational and encouragement programs suggested in this plan. Parent groups can also be key to ongoing success by helping to fundraise for smaller projects and programs.

## I AM A COMMUNITY MEMBER

Community residents, even if they don't currently have children enrolled in school, can play an important role in supporting implementation of the plan. They can use this report to better understand where there may be opportunities to participate in programming initiatives and infrastructure improvements. Community members, including seniors or retirees who may have more flexible schedules than parents with school-aged children, may volunteer in established programs or work with school staff or community partners to start new programs recommended in this plan.

## I WORK FOR THE SCHOOL DISTRICT

School district staff can use this report to prioritize improvements identified on District property and develop programs that educate and encourage students and parents to seek alternatives to single family commutes to school.

District officials are perhaps the most stable of the stakeholders for a Safe Routes to School program and are in the best position to keep the program active over time. District staff can work with multiple schools, sharing information and bringing efficiencies to programs at each school working on Safe Routes.

## I AM A SCHOOL ADMINISTRATOR

School administrators have an important role in implementing the recommendations contained within this SRTS plan. For a plan to succeed, the impetus for change and improvement must be supported by the leadership of the school.

School administrators can help with making policy and procedural changes to projects that are within school grounds and by distributing informational materials to parents within school publications. Please read the SRTS Facts for School Communication in Appendix B.

## I WORK FOR THE CITY OR COUNTY

City and County staff can use this report to identify citywide issues and opportunities related to walking and bicycling and to prioritize infrastructure improvements. City staff can also use this report to support Safe Routes to School funding and support opportunities such as:

- MnDOT Safe Routes to School (SRTS) grants
- Federal Safe Routes to School (SRTS) grants
- Statewide Health Improvement Program (SHIP)

For all infrastructure recommendations, a traffic study and more detailed engineering may be necessary to evaluate project feasibility, and additional public outreach should be conducted before final design and construction. For recommendations within the public right-of-way, the responsible agency will determine how (and if) to incorporate suggestions into local improvement plans and prioritize funding to best meet the needs of each school community.

## I WORK FOR THE POLICE DEPARTMENT

Police department staff can use this report to understand issues related to walking and bicycling to school and to plan for and prioritize enforcement activities that may make it easier and safer for students to walk and bike to school. The Police Department will be instrumental to the success of the enforcement programs and policies recommended in this plan. The Police Department will also have a key role in working with school administrations in providing officers and assistance to some of the proposed education and encouragement programs.

## I WORK IN PUBLIC HEALTH

Public health staff can use this report to identify specific opportunities to collaborate with schools and local governments to support safety improvements and encourage healthy behaviors in school children and their families.


# A APPENDICES

**HAYES ELEMENTARY**

Fridley Public Schools, Fridley, MN

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# Appendix A. For More Information

This appendix provides contact information for local, state, and national SRTS program resources as well as school partners.

## NATIONAL RESOURCES

Safe Routes to School Data Collection System
http://www.saferoutesinfo.org/data-central

Pedestrian and Bicycle Information Center
http://www.pedbikeinfo.com/

National Center for Safe Routes to School
http://www.saferoutesinfo.org/

Safe Routes to School Policy Guide
http://www.saferoutespartnership.org/sites/default/files/pdf/Local_Policy_Guide_2011.pdf

School District Policy Workbook Tool
http://www.changelabsolutions.org/safe-routes/welcome

Safe Routes to School National Partnership State Network Project
http://www.saferoutespartnership.org/state/network

Bike Train Planning Guide
http://guide.saferoutesinfo.org/walking_school_bus/bicycle_trains.cfm

10 Tips for SRTS Programs and Liability
http://www.saferoutesinfo.org/sites/default/files/liabilitytipsheet.pdf

Tactical Urbanism and Safe Routes to School
http://www.saferoutespartnership.org/resources/fact-sheet/tactical-urbanism-and-safe-routes-school

## STATE RESOURCES

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MnDOT Safe Routes to School Resource Website
http://www.dot.state.mn.us/saferoutes/

Minnesota Safe Routes to School Facebook page
https://www.facebook.com/MinnesotaSafeRoutestoSchool/?hc_ref=PAGES_TIMELINE&fref=nf

Walk!Bike!Fun! Pedestrian and Bicycle Safety Curriculum
http://www.bikemn.org/education/walk-bike-fun

School Siting and School Site Design
http://www.dot.state.mn.us/mnsaferoutes/planning/school_siting.html

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# Appendix B. SRTS Facts for School Communication

The following facts and statistics have been collected from national sources. They are intended to be submitted for use in individual school newsletters, emails or other communication with parents and the broader school community.

Except where otherwise noted, the following are based on research summarized by the National Center for Safe Routes to School. More information, including primary sources, can be found at http://guide.saferoutesinfo.org.

## TRAFFIC: COSTS, CONGESTION, AND SAFETY

- In 1969, half of all US schoolchildren walked or biked to school; by 2009, that number had dropped to just 13 percent.
- In the United States, 31 percent of children in grades K–8 live within one mile of school; 38 percent of these children walk or bike to school. You can travel one mile in about 20 minutes by foot or six minutes by bicycle.
- In 2009, school travel by private family vehicle for students in grades K through 12 accounted for 10 to 14 percent of all automobile trips made during the morning peak travel and two to three percent of the total annual trips made by family vehicle in the United States.
- Among parents who drove their children to school, approximately 40 percent returned home immediately after dropping their children at school. If more children walked or bicycled to school, it would reduce the number of cars near the school at pick-up and drop-off times, making it safer for walkers and bicyclists through reduced traffic congestion and improved air quality.
- Over the past few decades, many school districts have moved away from smaller, centrally located schools and have instead built schools on the edge of communities where land costs are lower and acreage has been more available. As a result, the percentage of students in grades K through 8 who live less than one mile from school has declined from 41 percent in 1969 to 31 percent in 2009.
- Personal vehicles taking students to school accounted for 10 to 14 percent of all personal vehicle trips made during the morning peak commute times. Walking, bicycling, and carpooling to school reduces the numbers of cars dropping students off, reducing traffic safety conflicts with other students and creates a positive cycle—as the community sees more people walking and biking, more people feel comfortable walking and bicycling.
- Conservatively assuming that 5% of today's school busing costs are for hazard busing, making it safe for those children to walk or bicycle instead could save approximately $1 billion per year in busing costs.
- In 2009, American families drove 30 billion miles and made 6.5 billion vehicle trips to take their children to and from schools, representing 10-14 percent of traffic on the road during the morning commute.
- Reducing the miles parents drive to school by just 1% would reduce 300 million miles of vehicle travel and save an estimated $50 million in fuel costs each year.
- Did you know that as more people bicycle and walk, biking and walking crash rates decrease? This is also known as the 'safety in numbers' principle. As more families walk and bike to school, streets and school zones become safer for everyone.

## HEALTH: PHYSICAL ACTIVITY AND OBESITY

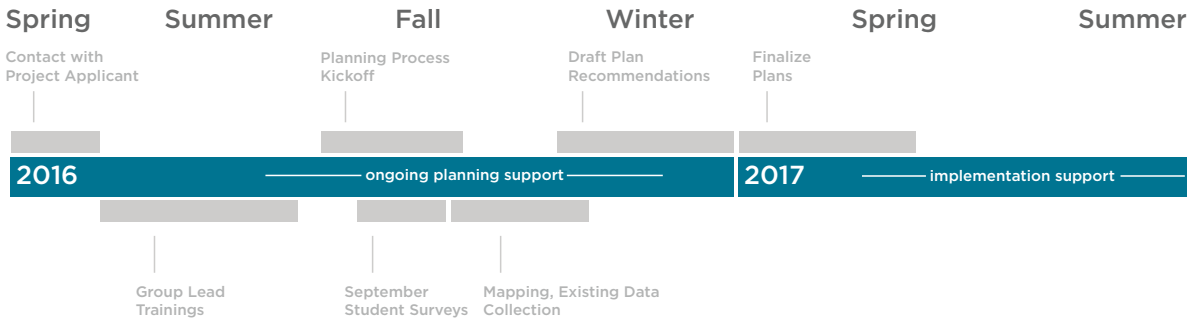
- The U.S. Department of Health and Human Services recommends that children do one hour or more of physical activity each day. Walking just one mile each way to and from school would meet two-thirds of this goal.
- Studies have found that children who get regularly physical activity benefit from healthy hearts, lungs, bones and muscles, reduced risk of developing obesity and chronic diseases, and reduced feelings of depression and anxiety. Teachers also report that students who walk or bike to school arrive at school alert and "ready to learn."
- Researchers have found that people who start to include walking and biking at part of everyday life (such as the school commute trip) are more successful at sticking with their increased physical activity in the long term than people who join a gym.
- One recent study showed that children who joined a "walking school bus" ended up getting more physical activity than their peers. In fact, 65% of obese students who participated in the walking program were no longer obese at the end of the school year.
- Childhood obesity has increased among children ages 6 to 11 from 4% in 1969 to 19.6% in 2007.Now 23 million children and teens—nearly one-third of all young people in the U.S.—are overweight or obese.
- The 2010 Shape of the Nation report from the National Association for Sport and Physical Education found that, nationwide, less than one-third of all children ages 6 to 17 participate in physical activity for at least 20 minutes that made the child sweat and breathe hard.
- Children aren't exercising enough AND 78% of children aren't getting the 30 to 60 minutes a day of regular exercise plus 20 minutes of more vigorous exercise that doctors recommend.
- Children are increasingly overweight. 20% of children and 33% of teens are overweight or at risk of becoming overweight. This is a 50% to 100% increase from 10 years ago.
- According to a Spanish study of 1,700 boys and girls aged between 13 and 18 years, cognitive performance of adolescent girls who walk to school is better than that of girls who travel by bus or car. Moreover, cognitive performance is also better in girls who take more than 15 minutes than in those who live closer and have a shorter walk to school.
- One hundred calories can power a cyclist for three miles, but it would only power a car 280 feet. If you have a bowl of oatmeal with banana and milk for breakfast, you could bike more than nine miles. How far is the trip to school from your house?
- A 2004 study in the American Journal of Preventive Medicine found that, for every hour people spend in their cars, they are 6% more likely to be obese.
- Because of the health benefits, the cost of walking is actually negative.
- Childhood obesity rates have more than tripled in the past 30 years, while the number of children walking and biking to school has declined. According to the 2009 National Household Travel Survey, 13 percent of students between the ages of 5 and 14 walked or biked to or from school, compared to 48 percent in 1969.

## ENVIRONMENT: AIR QUALITY, CLIMATE CHANGE AND RESOURCE USE

- Did you know? When you walk, bike, or carpool, you're reducing auto emissions near schools. Students and adults with asthma are particularly sensitive to poor air quality. Approximately 5 million students in the U.S. suffer from asthma, and nearly 13 million school days per year are lost due to asthma-related illnesses.
- Did you know that modern cars don't need to idle? In fact, idling near schools exposes children and vehicle occupants to air pollution (including particulates and noxious emissions), wastes fuel and money, and increases unnecessary wear and tear on car engines. If you are waiting in your car for your child, please don't idle – you'll be doing your part to keep young lungs healthy!
- Families that walk two miles a day instead of driving will, in one year, prevent 730 pounds of carbon dioxide from entering the atmosphere.
- The United States moved into the 21st century with less than 30% of its original oil supply remaining.
- Americans drive more than 2 trillion vehicle miles per year.
- Short motor-vehicle trips contribute significant amounts of air pollution because they typically occur while an engine's pollution control system is cold and ineffective. Thus, shifting 1% of short automobile trips to walking or biking decreases emissions by 2 to 4%.
- There is more pollution inside a stationary car on a congested road than outside on the pavement.
- From 30% to 60% of urban America is given over to the car; two-thirds in Los Angeles.
- The transportation sector is the second largest source of CO2 emissions in the U.S. Automobiles and light-duty trucks account for almost two-thirds of emissions from the transportation sector. Emissions have steadily grown since 1990.
- In a year, a typical North American car will add close to five tons of CO2 into the atmosphere. Cars account for an estimated 15% to 25% of U.S. CO2 emissions.
- Transportation is the largest single source of air pollution in the United States. In 2006 it created over half of the carbon monoxide, over a third of the nitrogen oxides, and almost a quarter of the hydrocarbons in our atmosphere.
- Disposal of used motor oil sends more oil into the water each year than even the largest tanker spill.
- Going by bus instead of car cuts nitrogen oxide pollution by 25%, carbon monoxide by 80% and hydrocarbons by 90% per passenger mile.
- Eight bicycles can be parked in the space required for just one car.

# Appendix C. Summary of Planning Process

The following is a brief summary of the planning process completed for the formation of this plan. The timeline below accompanies the narrative.




Planning for the SRTS plans began in the spring of 2016, after the City of Fridley successfully applied and was awarded a planning assistance grant from MnDOT. On July 28, 2016, consultant and MnDOT staff met in Fridley with the Fridley team leaders - local SRTS team members who identified themselves as the core group. An informal training was given to the team leaders on the background and principles of SRTS. This was followed by a brief walking tour of neighborhoods surrounding the schools. At the end of the meeting, consultant and MnDOT staff toured the city, made note of potential barriers, collected photos, and observed the local flow of traffic.

In September of 2016, data collection of student travel patterns and parent perceptions of walking and biking was completed by the local team. The three Fridley schools sent electronic surveys to parents that asked them about how comfortable they were with their children walking and biking to school. In addition, the survey asked the distance from school families live, whether they feel like their school promotes biking and walking, and what changes would make them feel more confident about allowing their children to walk or bike. In addition to the parent surveys, students were asked by school staff about their travel patterns to and from school. This student tally collected data on travel to and from school during three weekdays in September. Both the student tally and parent survey were designed by the National Center for Safe Routes to School. Results from both were uploaded to the Data Collection System, allowing for comparison when future surveys and tallies are completed.

## RAPID PLANNING SESSION

In November of 2016, a broad group of stakeholders met for an intensive day-and-a-half meeting called a Rapid Planning Session. This charrette-style event

brought together school, district, and city and county staff to discuss the challenges and opportunities for walking and biking to school in Fridley. Broadly, the Rapid Planning Session was made up of three parts. In the morning of the first day, attendees learned about SRTS, discussed upcoming projects and existing conditions that may affect biking and walking, and brainstormed potential programs that could help make biking and walking to school more appealing to students and families.

In the afternoon, the team met with a group of Hayes students to tell them about the SRTS plan and discuss their feelings towards walking and biking. Large format maps were used for students to show neighborhood destinations, walking routes and biking routes, and barriers. Below is what the students said when asked why they like to walk, and why they think biking is currently dangerous:

**Why students like to walk:**

- "I can get home earlier if I walk than take the bus"

- “I can see and collect flowers and leaves”
- “I have time in the sun and see the sky”
- “It’s better for the environment and helps to prevent global warming”
- “I like to be outside with birds and animals”
- “I get quiet time alone”
- “I get time away from six siblings”
- “I get to see trees”
- “I like to explore”
- “I get exercise and get fit”
- “I get to have time with family”

**Why students think biking is currently dangerous:**

- “Cars go too fast”
- “Dogs can chase you”
- “There is no off-road trail”

Following the student meeting, consultant staff led stakeholders on a walk assessment - the process of walking the streets of an area and evaluating the experiences a pedestrian would have. It allowed for the group to understand what walking to school is like.

Following the walk assessment, meeting participants split up and observed the dismissal of students at each of the three Fridley schools. During this time, one member of the consultant team set up maps and informational materials outside one of the elementary schools in order to engage parents arriving to pick up their children. Finally, after dismissal was observed, all stakeholders reconvened and discussed what was observed during the walk assessment and dismissal. Walking and bicycling routes, bus loading, parent pick up, issues and opportunities were recorded on large format maps and later were referenced by the consultant team when making recommendations.

On the morning of day two, consultants presented the local team with the recommendations formulated the previous night. The local team provided useful initial feedback for the consultant team.

## ENGINEERING MEETING

The consultant team then took information gathered at the Rapid Planning Session and met with Fridley engineers in December of 2016. The integration of these recommendations with other capital projects programmed for the area was discussed. The feedback received was critical in finalizing the infrastructure recommendations shown in this plan.

# Appendix D. Existing Conditions

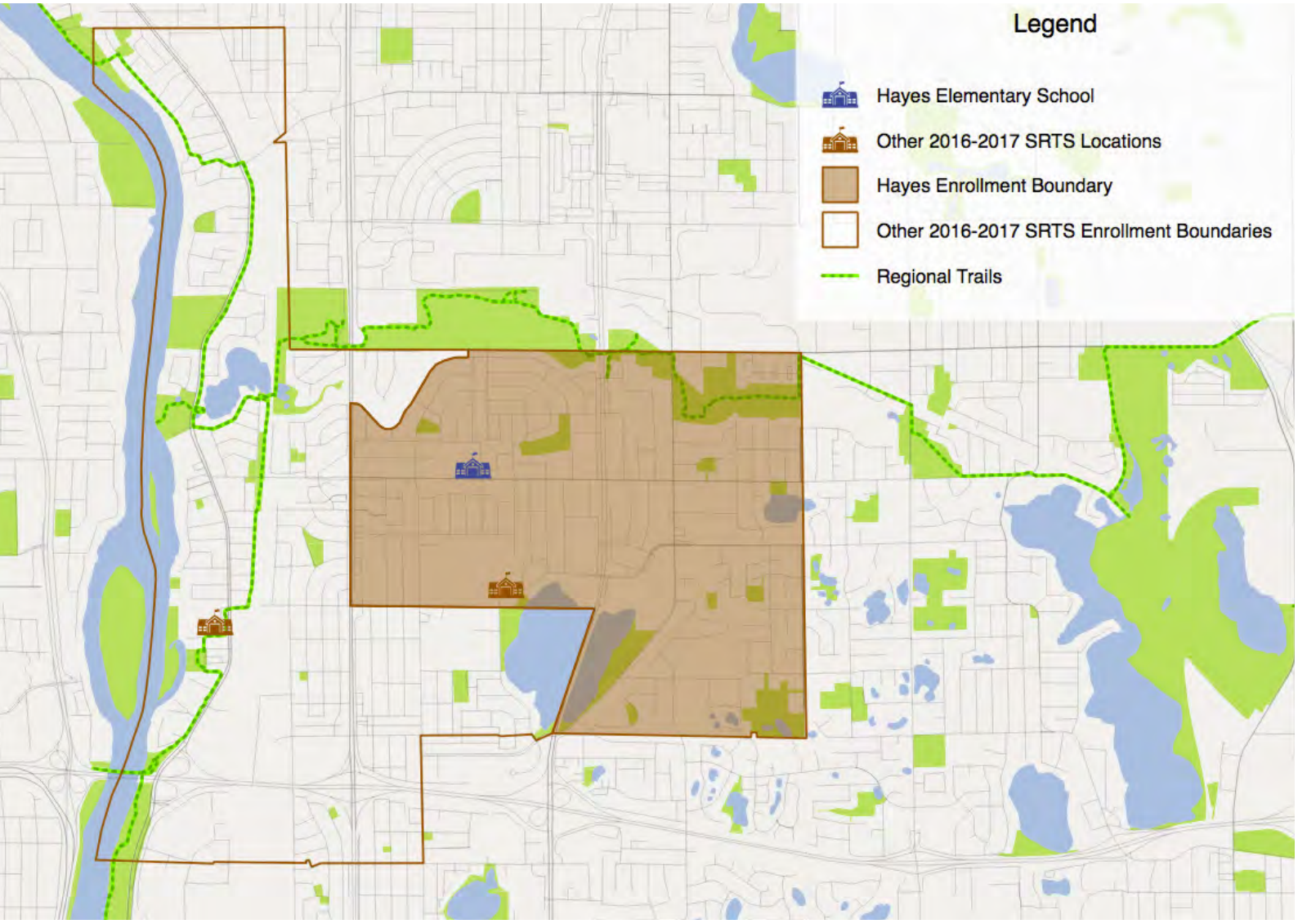
The following is a brief summary of the existing conditions in the area of Hayes Elementary School.

## SCHOOL CONTEXT

### Basic Information

Principal: John Piotraschke
Grades: PK-4
Number of Students: 571
Arrival Time: 8:55 AM
Dismissal Time: 3:45 PM

### School Enrollment Boundary



### Surrounding Land Use

Hayes Elementary School is bound by Monroe Street NE on the east, and 7th Street NE on the west. Mississippi Street NE (County 6) is the main avenue to the south of the school while 67th Avenue NE borders the northern edge of the elementary school. The only public access to the school property is from the south and the east. Fridley Middle School and High School are located a quarter-mile south of Hayes Elementary School. The elementary school is surrounded by single-family residential developments. Multi-family townhomes are located a quarter-mile southwest of the school. Multi-family apartments are located a block west of the school near the public library and the city hall. The Fridley Historical Center is located adjacent Hayes Elementary School. There is a convenient store located a quarter-mile west of the school.

### Infrastructure/Existing Conditions for Walking and Biking

Sidewalks are located along the southern and eastern edges of the school along both sides of Mississippi Street NE and the west side of Monroe Street NE. A pedestrian path is available along Monroe Street NE just south of 67th Avenue NE.

Striped pedestrian crossings are available to the northeast at 67th Avenue NE and Monroe Street NE. Striped pedestrian crossing intersections are also located along Mississippi Street NE to the south at both Monroe Street NE and 7th Street NE.

### Facilitated Crossing Locations

The Fridley Public Schools district provides walking and biking safety tips and information on its website under "Transportation" information in addition to conducting a walk to the stop campaign. The campaign encourages students to walk to a stop sign in order to cross the adjacent street since buses make stops are street corners, but the campaign has been difficult to enforce according to school staff.

## SCHOOL/CAMPUS LAYOUT

Hayes Elementary School was recently renovated in 2016 with an addition on the western side of the school. The school has three driveways, two off of Mississippi Street NE and one off of Monroe Street NE. The driveway entrances off of the south are for buses only with the eastern driveway entrance for cars. The eastern driveway entrance is attached to the parking lot which is also used for parent pick-up and drop-off. The bus drop-off area is separate from the parent pick-up and drop-off zone to prevent students from walking in between buses.

Bus enter the easternmost driveway on Mississippi Street NE to drop students off for arrival, where they enter the building using an southern facing entrance. Bus exit campus using the westernmost driveway on Mississippi Street NE. All other vehicles are prohibited from using either driveway on Mississippi Street NE during the morning bus drop-off and afternoon bus pick up. One row of visitor parking is attached to this driveway loop and is accessible from the easternmost driveway after bus unloading and before bus loading.

Parent drop-off and pick-up vehicles enter campus from the driveway entrance on Monroe Street NE and loop around the parking lot counterclockwise. Students are dropped off at the northwestern corner of the parking lot and enter the building from a southern-facing entrance. Parent vehicles exit the parking lot using the same driveway access point on Monroe Street NE. Approximately 90 vehicles utilize the drop-off loop daily.

No bike racks are provided on campus.

## SCHOOL TRAVEL PATTERNS

### Current Mode Share (Hand Tallies)

Eighteen classrooms submitted walk and bike numbers during the month of September 2016. From the numbers submitted by participating classrooms, it was determined that 11% of students walk and 1% of students bike to school. Students who bike to school also bike home while more students walk home (16%) from school than those who only walk to school from home. Most students (84%) arrive to campus by school bus (36%) or by family vehicle (48%) and depart from campus by school bus (36%) or family vehicle (44%).

### Parent Survey Summary

Forty-five parent survey questionnaires were returned. According to the responses received, 63% of survey re-

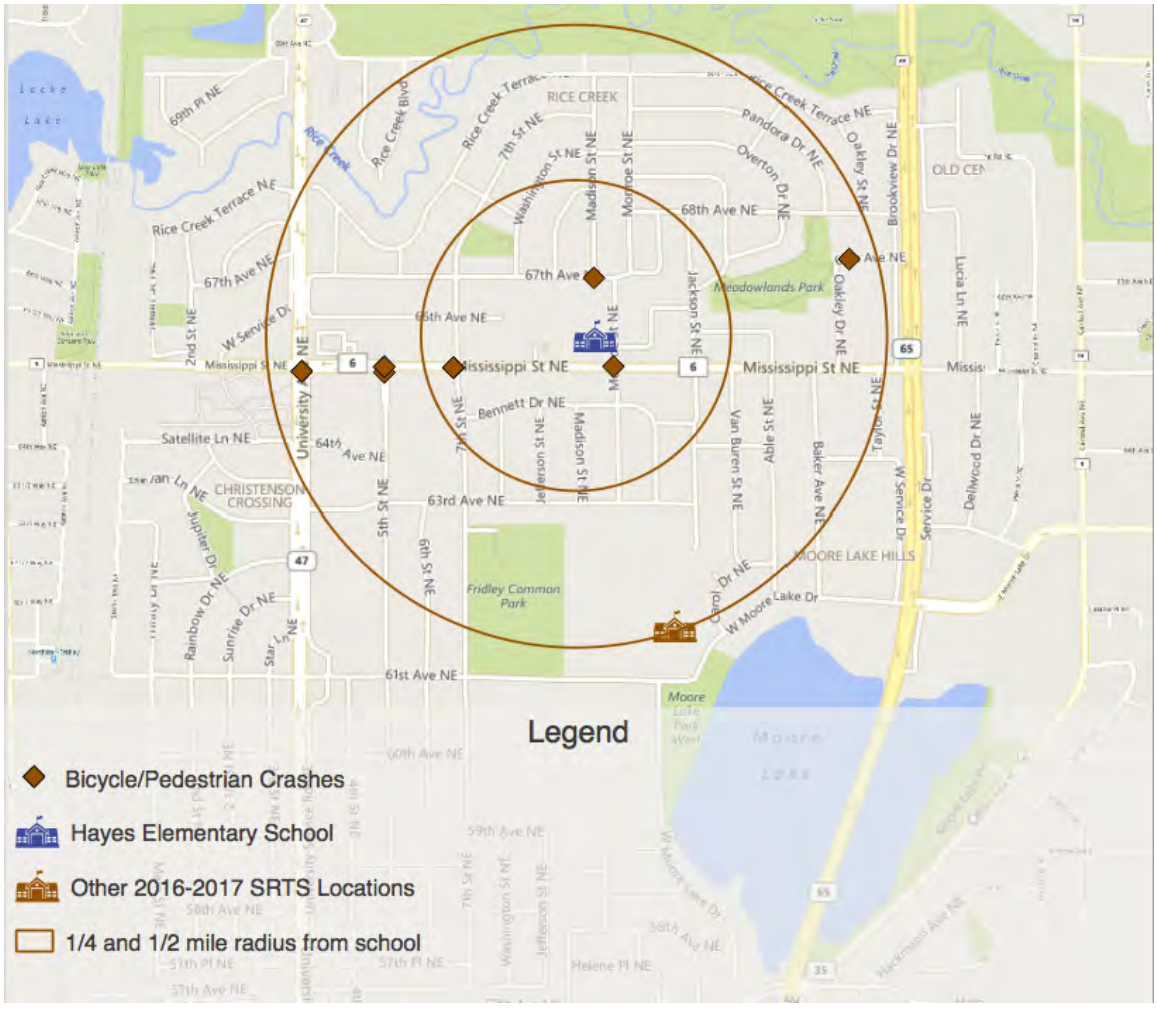
spondents reported that their students reside within an estimated two miles of campus with the greatest proportion of students residing beyond two miles from campus (37%). About one-third of survey respondents reported that their students arrive (34%) and depart (39%) campus by bus while half of students arrive (57%) and depart (48%) campus by family vehicle. No survey respondents reported that their students bike to and from school, while 9% and 14% reported that their students walk to and from school, respectively.

In general, students residing within one-half mile of campus arrive by walking (25-33%) or family vehicle (67-75%) and depart by walking (33-50%) or family vehicle (50-67%). Students living beyond one-half mile of campus arrive and depart by school bus and family vehicle with no students walking to school and 20% of students walking home from school. Students residing beyond one mile from campus do not walk to or from school. Up to half of students living within one mile of campus have asked for permission to walk or bike to and from school with few or no students living beyond one mile asking permission.

Survey respondents of students who do not currently walk or bike to school cited distance, safety of intersections and crossings, weather, and speed or amount of traffic as the main reasons that affect their decision to not allow their students to walk or bike to and from school. Survey respondents of students who do walk to school cited weather and speed or amount of traffic as the main reasons that affect their decision to allow their students to walk or bike, although they also considered distance, safety of intersections and crossings, presence of sidewalks or pathways, adult supervision, and crossing guards.

Generally, parents and survey respondents reported that they are concerned about the age of their students walking to and from school without adult supervision, especially because even if sidewalks are available they are not well-maintained in winter months and intersections are too busy. One respondent reported that all kindergarten students should be allowed the option of busing regardless of the distance of their residence from campus. Another respondent reported that they feel that biking is discouraged and are glad that schools in the district are fostering conversation to encourage more safety for biking and walking students.

## TRAFFIC CONDITIONS AND CRASH ANALYSIS Crash Locations 2006-2015



# ASSETS AND CHALLENGES

## Assets

- Proximity to other school campuses and community assets may support programming efforts around walking and biking systems
- A majority of students reside within two miles of campus
- Reconstruction and reconfiguring of Mississippi Street NE
- Support for wellness initiatives from teachers and staff

## Infrastructure Challenges

- Busy road crossings and intersections
- Gaps in sidewalk network on both sides of streets
- Winter maintenance of sidewalks and pathways
- Existing and future pedestrian bridges
- Absence of protected or buffered bike lane facilities
- Absence of bike racks and bike storage
- Parking along Mississippi Street NE

# WALK AUDIT SUMMARY

Date: 11/01/2016
Day of the Week: Tuesday
Time: Afternoon
Weather Conditions: -
Participants: Rapid Planning Charrette Attendees

## Walk Audit Summary

**Pedestrian Circulation**

Students walking home from school depart from multiple areas of the building. Some walkers depart from the northern extension of the school building, while other walkers depart from one of three southern-facing building entrances. Kindergarten and 1st grade students depart the building from the westernmost southern-facing entrance, where they are received by their parents and/or guardians.

For parents and/or guardians with incompatible work schedules that prevent them from picking up their students at school release, many students participate in The Zone afterschool program. From The Zone, students are released from the program between 5:15 and 6:00 p.m. but are not allowed to walk home. One parent reported that scheduling their student's transition from school to a nearby daycare is difficult because the student has no adult supervision after crossing the street with a crossing guard to walk to the daycare location.

The preferred walking route is 7th Street NE, although there is room for improvement at intersections, particularly at 63rd Avenue NE. Connections to other community assets, including the Mississippi Library, Commons Park, and Terrace Park could also be improved.

**Bike Circulation**

No students were observed biking from campus.

**Crossing Guards and Patrols**

Crossing guards are onsite to walk students from campus to the corners of intersections, particularly at Mississippi Street NE and Monroe Street NE.

**Bus Circulation**

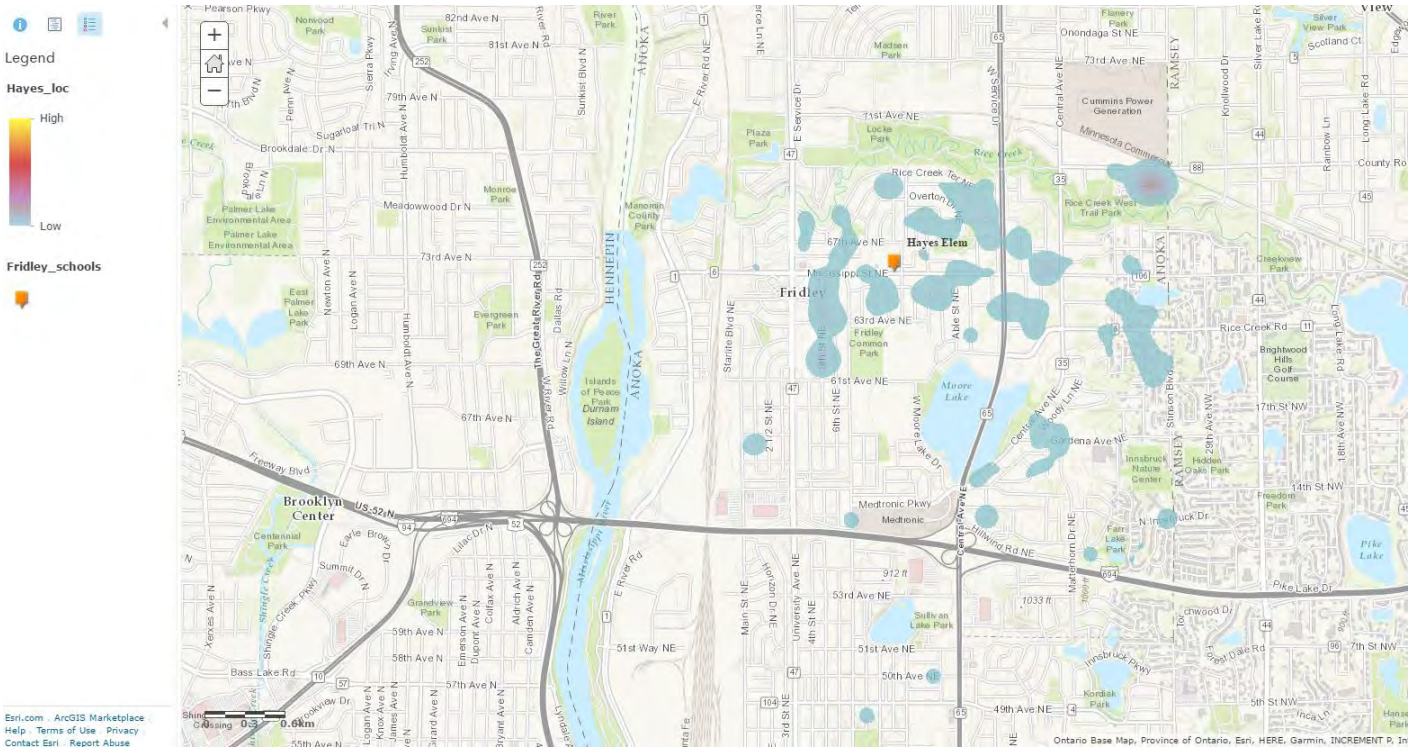
Fifteen buses use the bus drop circle. There are concerns that the bus drop circle radius is too small, making it difficult to pull into the drive from the eastern driveway entrance on Mississippi Street NE. Additionally, the bus circle radius makes it difficult for bus drivers to have clear sightlines.

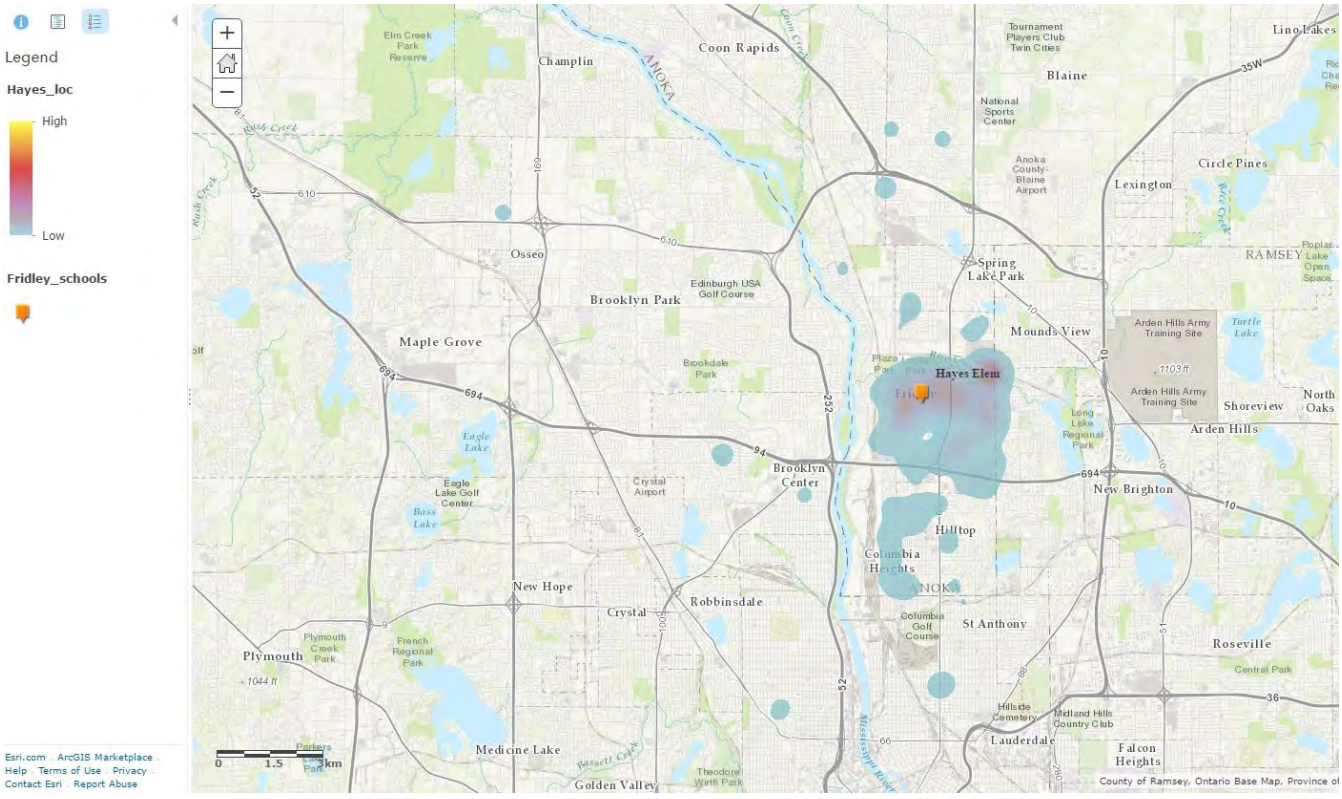
**Car Circulation**

There is concern about the volume and congestion of the parent drop-off and pick-up system. Between 80 and 120 vehicles utilize the drop-off and pick-up loop, which uses the same driveway for both entering and exiting vehicles. Vehicles back up along Monroe Street NE and may be exacerbated by the uneven grid in which Monroe Street NE shifts further east at 67th Avenue NE. Providing better biking and walking conditions will help reduce congestion.

# Appendix E. Student Residences

The two maps below show the location of students attending Hayes Elementary in the 2016-2017 school year. The bubbles of color on the map show the location of students, where a warmer color (yellow, red) represents more students and a cooler color (blue) represents fewer. The school location is shown as an orange marker. The top map shows the areas immediately surrounding Hayes, while the bottom map shows the greater metro area. There may be additional students outside the extent of the maps.



# Appendix F. Parent Survey

The following is a summary of the a survey sent home to parents of children attending Hayes Elementary School in the fall of 2016. It asks parents their feelings about walking and biking and is a direct export from the National Safe Routes to School Data Collection System, which processed the survey responses and generated this report.

## Parent Survey Report: One School in One Data Collection Period

**School Name:** Hayes Elementary School

**Set ID:** 15396

**School Group:** Fridley SRTS

**Month and Year Collected:** November 2016

**School Enrollment:** 0

**Date Report Generated:** 10/31/2016

**% Range of Students Involved in SRTS:** Don't Know

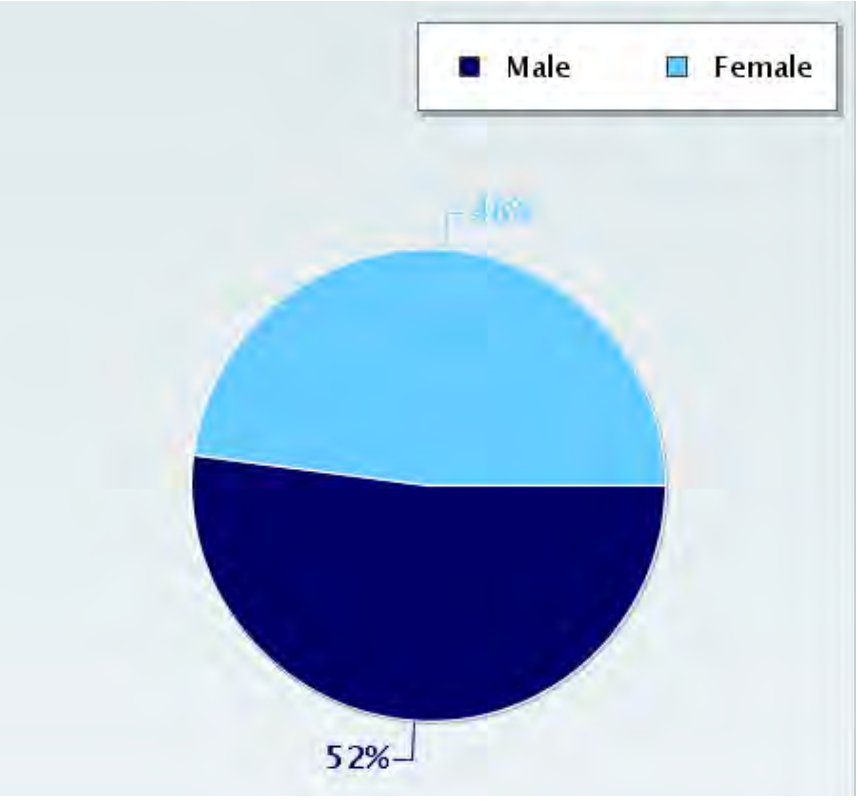
**Tags:**

**Number of Questionnaires Distributed:** 0

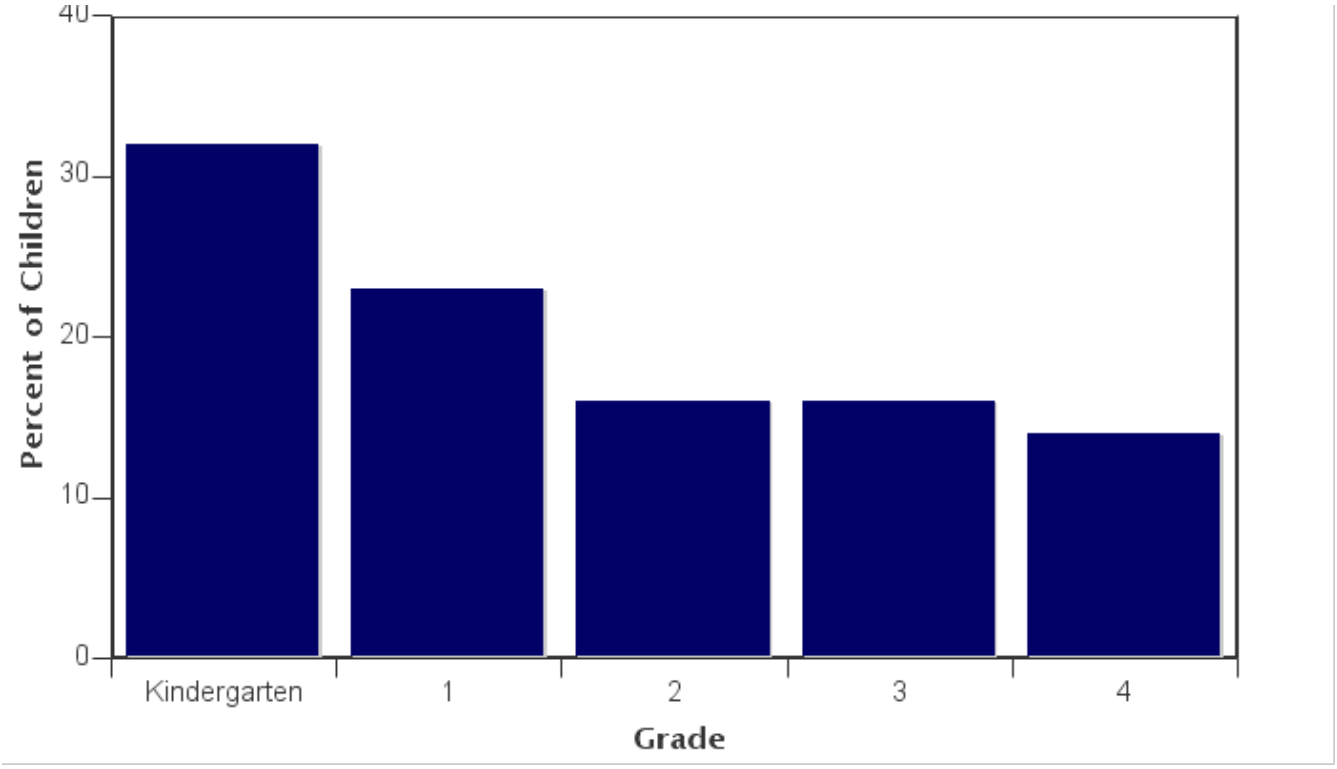
**Number of Questionnaires Analyzed for Report:** 45

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.

### Sex of children for parents that provided information



## Grade levels of children represented in survey

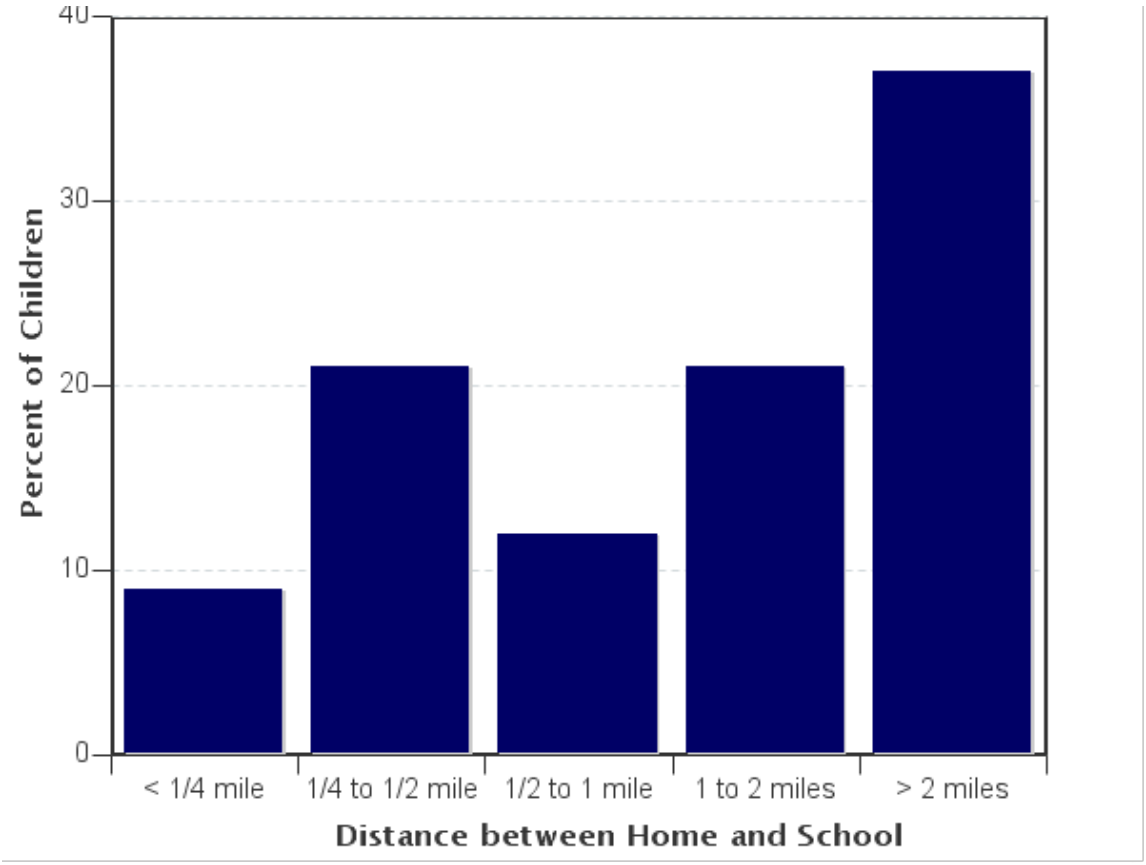



## Grade levels of children represented in survey

| Grade in School | Responses per grade | |
|---|---|---|
| | Number | Percent |
| Kindergarten | 14 | 32% |
| 1 | 10 | 23% |
| 2 | 7 | 16% |
| 3 | 7 | 16% |
| 4 | 6 | 14% |

No response: 0
Percentages may not total 100% due to rounding.

Parent estimate of distance from child's home to school

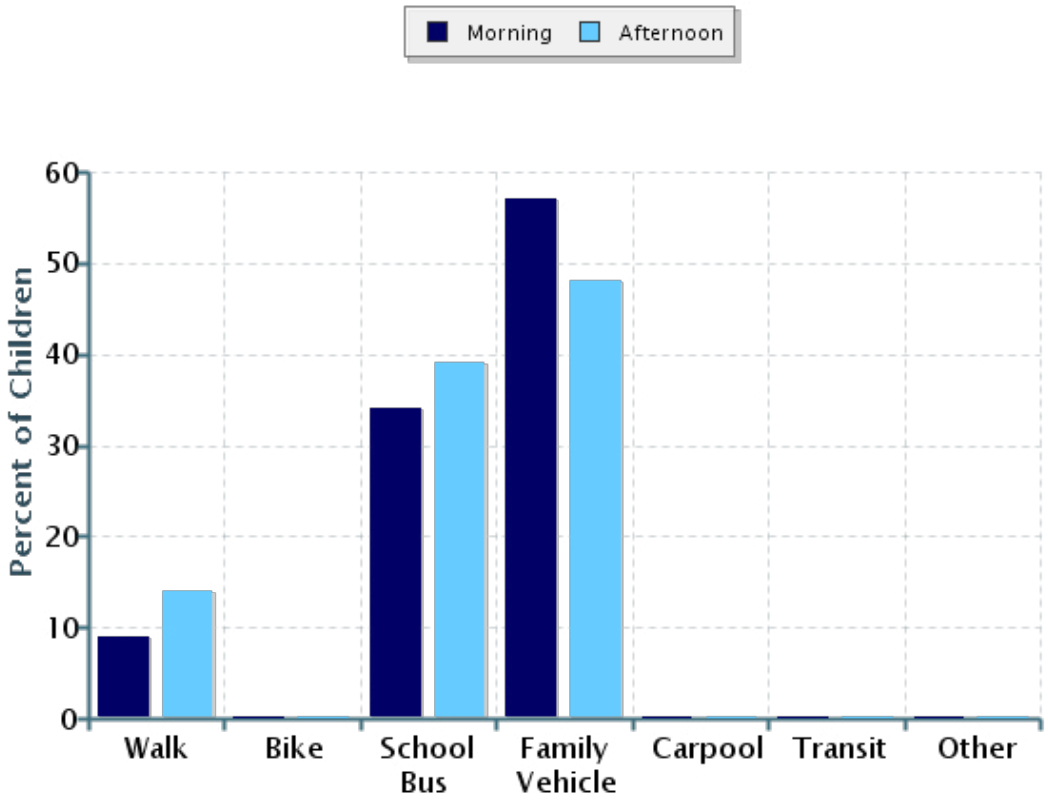



Parent estimate of distance from child's home to school

| Distance between home and school | Number of children | Percent |
|---|---|---|
| Less than 1/4 mile | 4 | 9% |
| 1/4 mile up to 1/2 mile | 9 | 21% |
| 1/2 mile up to 1 mile | 5 | 12% |
| 1 mile up to 2 miles | 9 | 21% |
| More than 2 miles | 16 | 37% |

Don't know or No response: 2
Percentages may not total 100% due to rounding.

## Typical mode of arrival at and departure from school

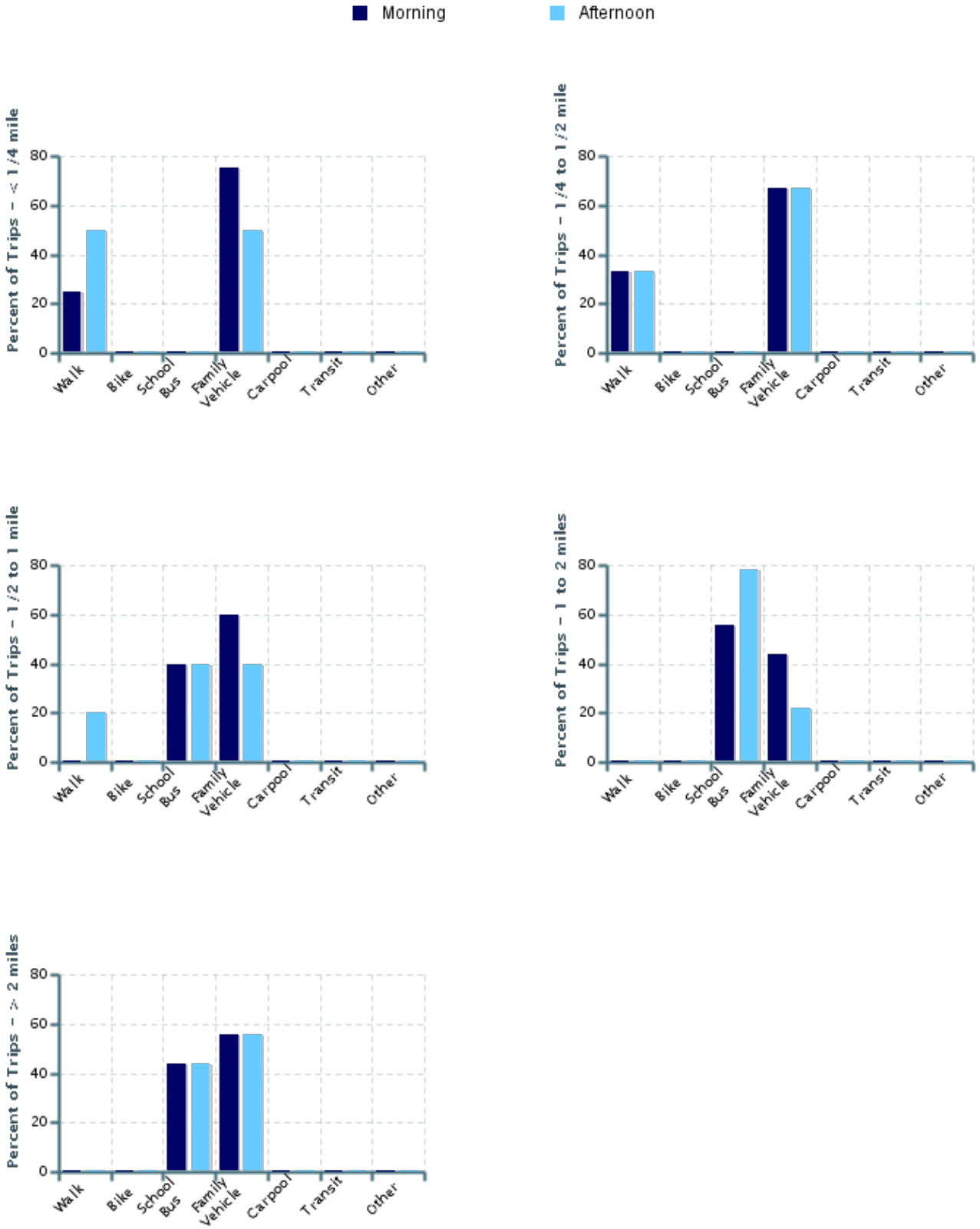



## Typical mode of arrival at and departure from school

| Time of Trip | Number of Trips | Walk | Bike | School Bus | Family Vehicle | Carpool | Transit | Other |
|---|---|---|---|---|---|---|---|---|
| Morning | 44 | 9% | 0% | 34% | 57% | 0% | 0% | 0% |
| Afternoon | 44 | 14% | 0% | 39% | 48% | 0% | 0% | 0% |

No Response Morning: 1
No Response Afternoon: 1
Percentages may not total 100% due to rounding.

## 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 | 4 | 25% | 0% | 0% | 75% | 0% | 0% | 0% |
| 1/4 mile up to 1/2 mile | 9 | 33% | 0% | 0% | 67% | 0% | 0% | 0% |
| 1/2 mile up to 1 mile | 5 | 0% | 0% | 40% | 60% | 0% | 0% | 0% |
| 1 mile up to 2 miles | 9 | 0% | 0% | 56% | 44% | 0% | 0% | 0% |
| More than 2 miles | 16 | 0% | 0% | 44% | 56% | 0% | 0% | 0% |

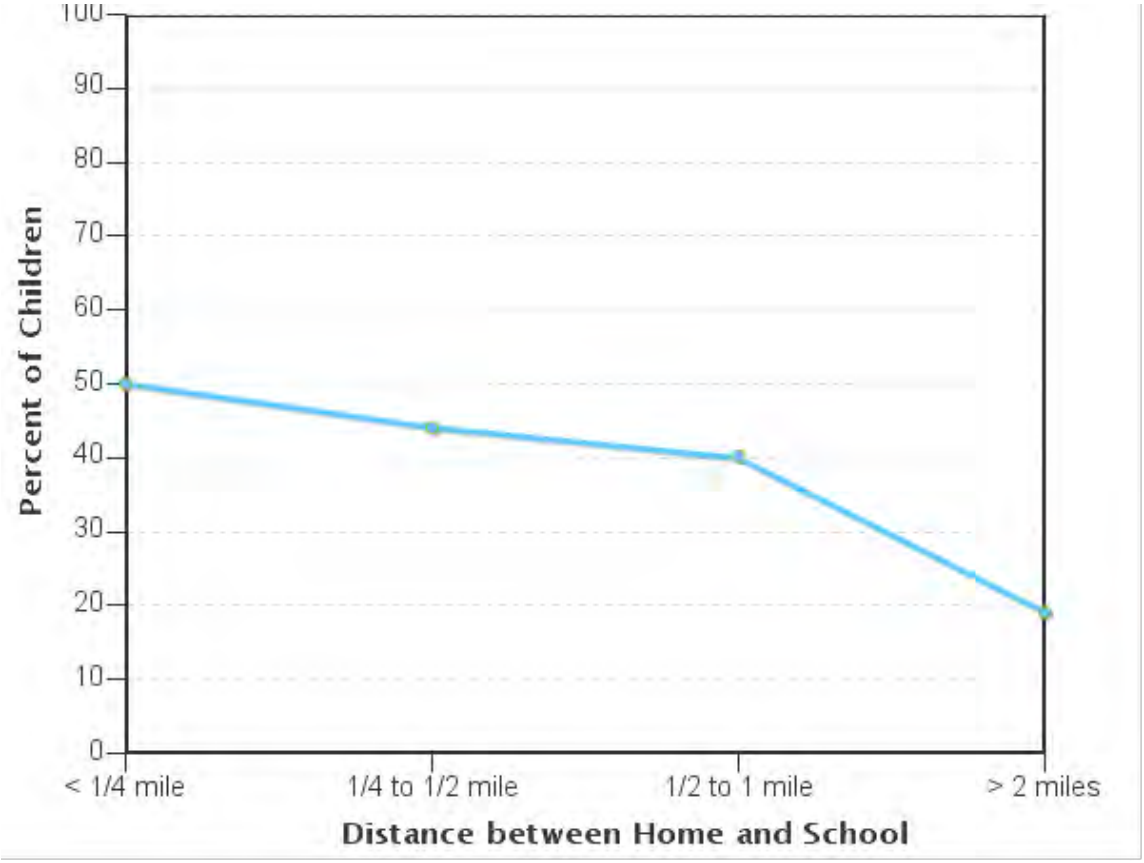
Don't know or No response: 2
Percentages may not total 100% due to rounding.

### School Departure

| Distance | Number within Distance | Walk | Bike | School Bus | Family Vehicle | Carpool | Transit | Other |
|---|---|---|---|---|---|---|---|---|
| Less than 1/4 mile | 4 | 50% | 0% | 0% | 50% | 0% | 0% | 0% |
| 1/4 mile up to 1/2 mile | 9 | 33% | 0% | 0% | 67% | 0% | 0% | 0% |
| 1/2 mile up to 1 mile | 5 | 20% | 0% | 40% | 40% | 0% | 0% | 0% |
| 1 mile up to 2 miles | 9 | 0% | 0% | 78% | 22% | 0% | 0% | 0% |
| More than 2 miles | 16 | 0% | 0% | 44% | 56% | 0% | 0% | 0% |

Don't know or No response: 2
Percentages may not total 100% due to rounding.

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

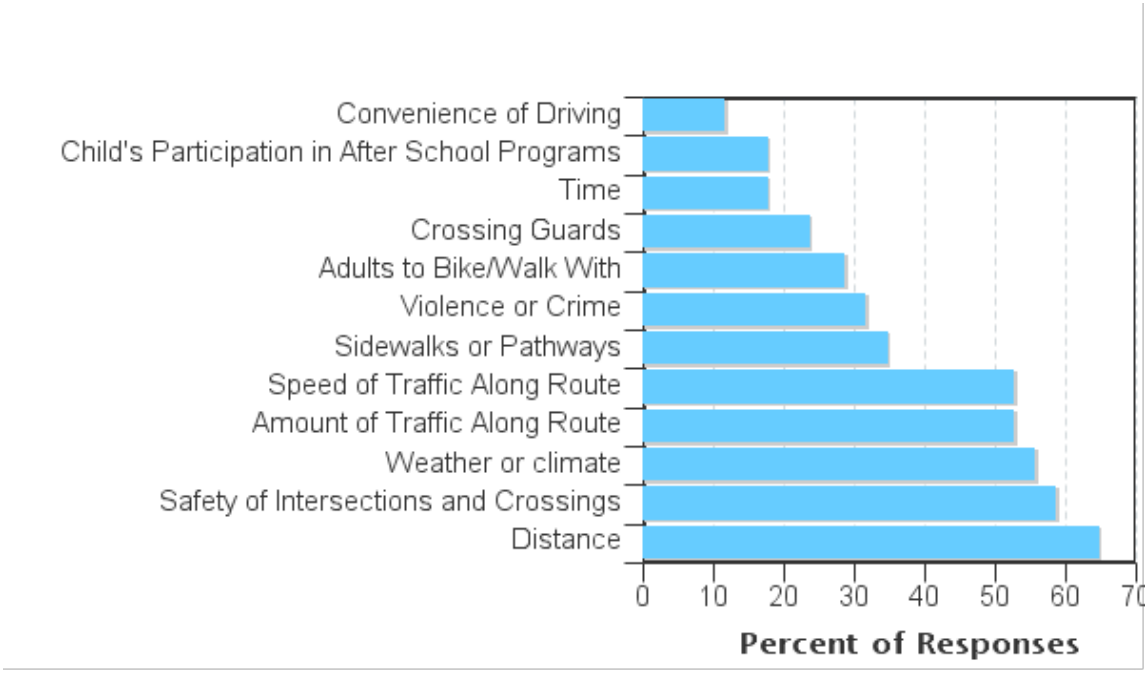



Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

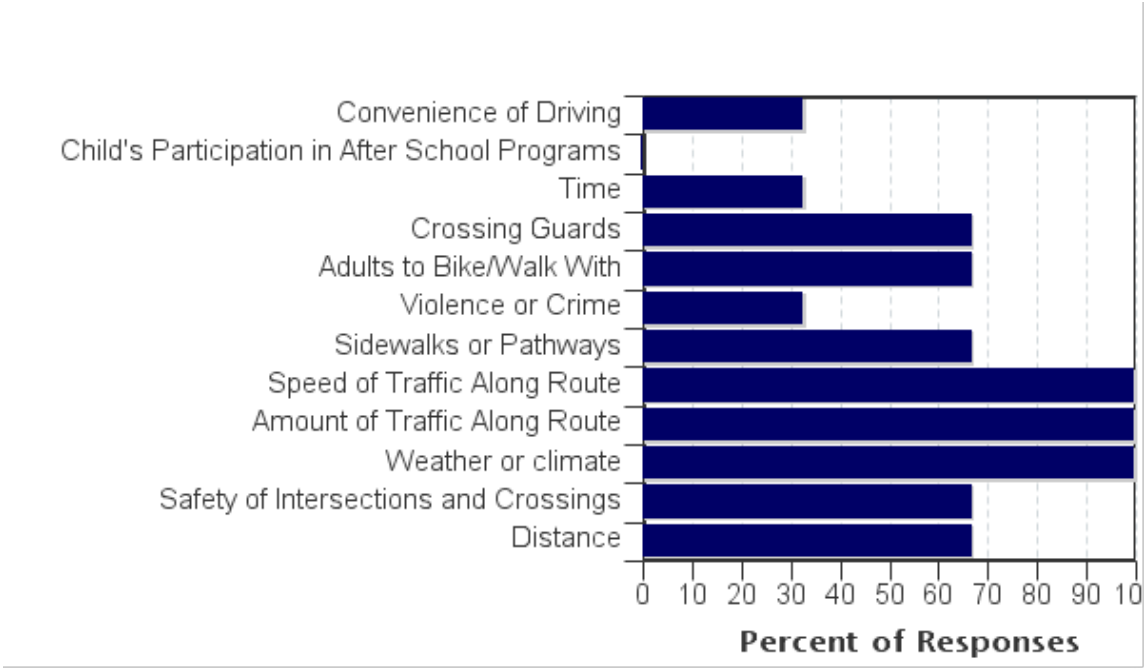
| Asked Permission? | Number of Children | Less than 1/4 mile | 1/4 mile up to 1/2 mile | 1/2 mile up to 1 mile | 1 mile up to 2 miles | More than 2 miles |
|---|---|---|---|---|---|---|
| Yes | 11 | 50% | 44% | 40% | 0% | 19% |
| No | 32 | 50% | 56% | 60% | 100% | 81% |

Don't know or No response: 2
Percentages may not total 100% due to rounding.

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

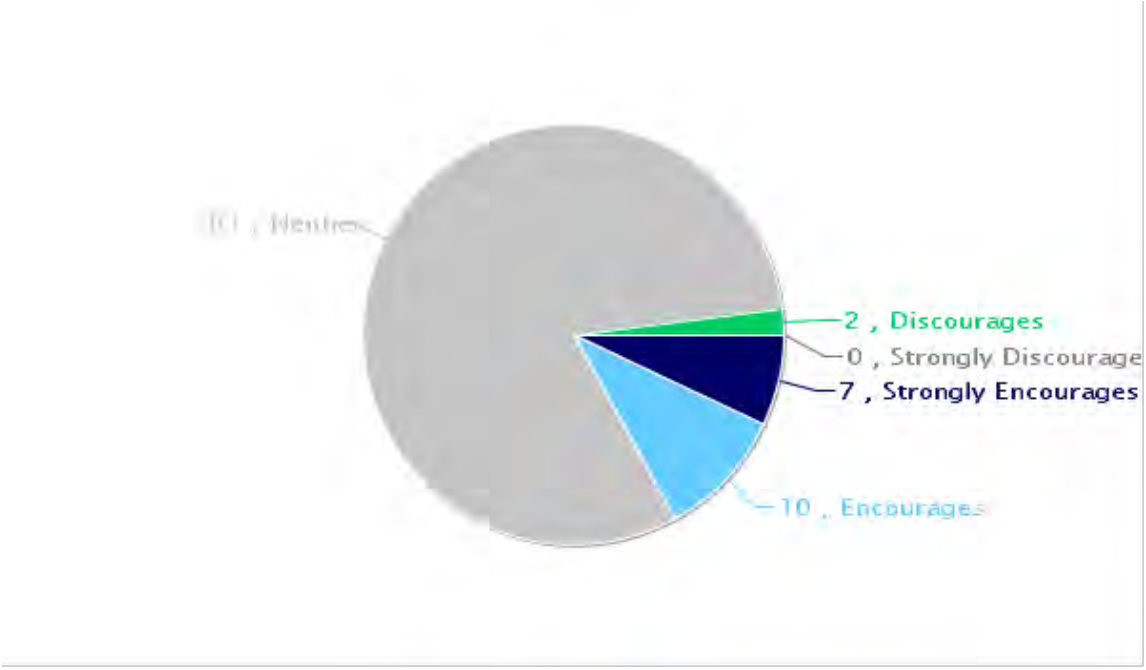


## Issues reported to affect the decision to allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school

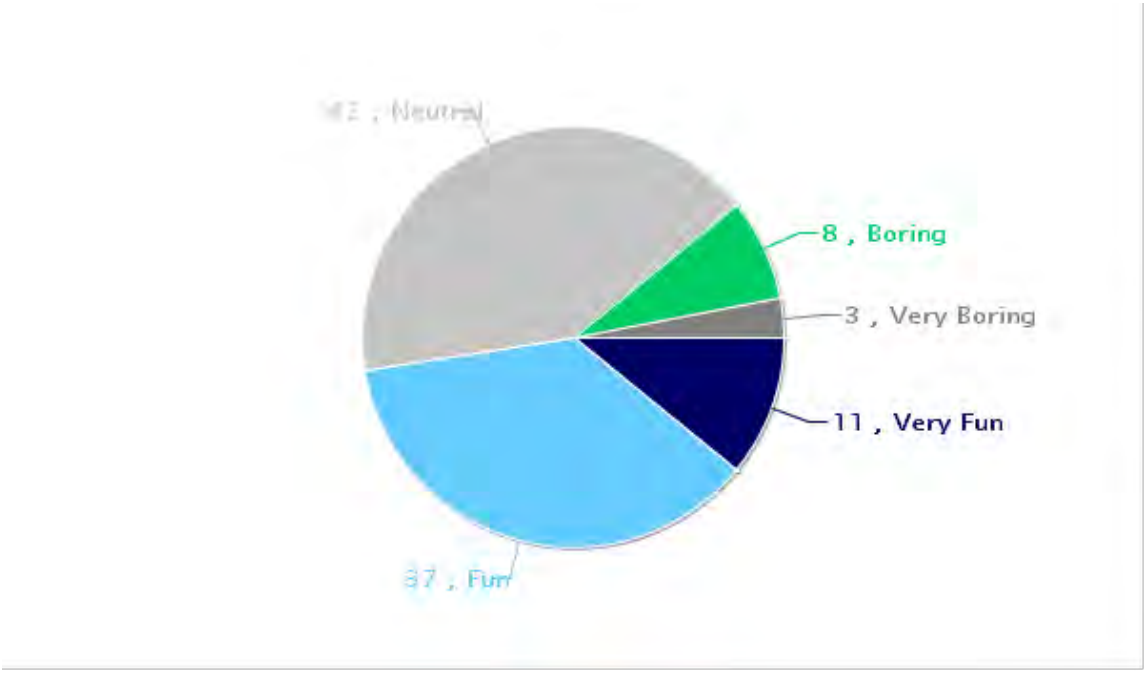
| Issue | Child does not walk/bike to school | Child walks/bikes to school |
|---|---|---|
| Distance | 65% | 67% |
| Safety of Intersections and Crossings | 59% | 67% |
| Weather or climate | 56% | 100% |
| Amount of Traffic Along Route | 53% | 100% |
| Speed of Traffic Along Route | 53% | 100% |
| Sidewalks or Pathways | 35% | 67% |
| Violence or Crime | 32% | 33% |
| Adults to Bike/Walk With | 29% | 67% |
| Crossing Guards | 24% | 67% |
| Time | 18% | 33% |
| Child's Participation in After School Programs | 18% | 0% |
| Convenience of Driving | 12% | 33% |
| **Number of Respondents per Category** | **34** | **3** |

No response: 8
Note:
--Factors are listed from most to least influential for the 'Child does not walk/bike to school' group.
--Each column may sum to > 100% because respondent could select more than issue
--The calculation used to determine the percentage for each issue is based on the 'Number of Respondents per Category' within the respective columns (Child does not walk/bike to school and Child walks/bikes to school.) If comparing percentages between the two columns, please pay particular attention to each column's number of respondents because the two numbers can differ dramatically.

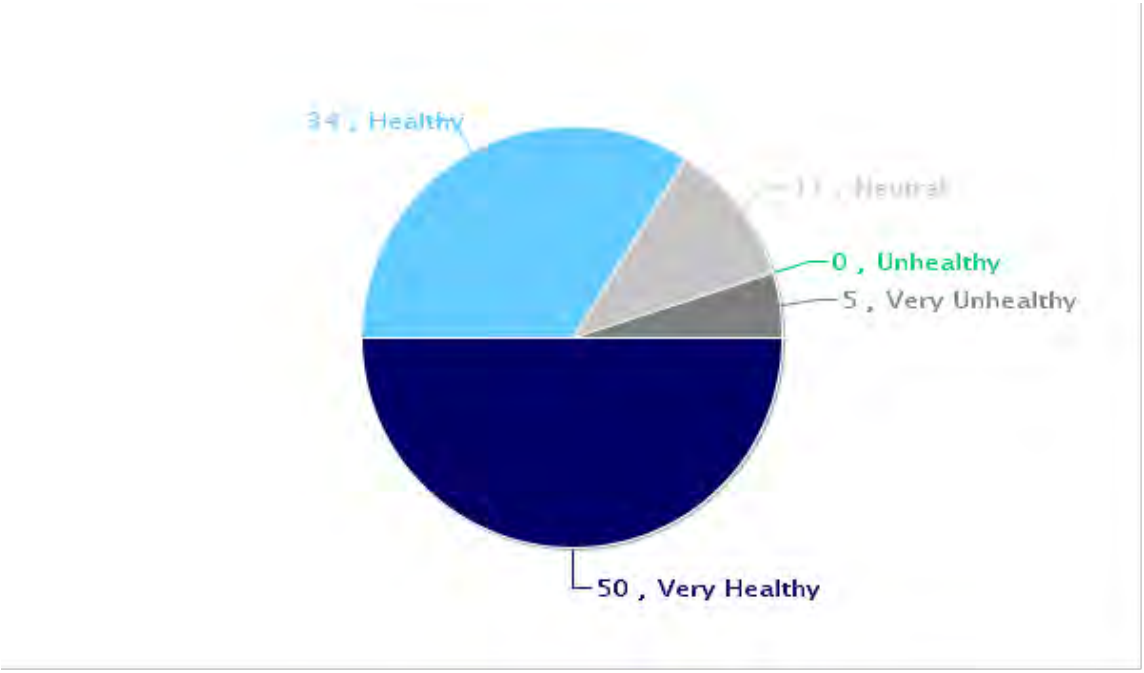
Parents' opinions about how much their child's school encourages or discourages walking and biking to/from school




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



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



| SurveyID | Comment |
|---|---|
| 1471862 | We live so far from school, if we lived closer she would probably walk most days. |
| 1472032 | When she can walk with the neighbors we let her, but it isn't always an option. |
| 1472139 | Central avenue traffic light wait is very long and traffic is very fast. No sidewalks available in our neighborhood. |
| 1472220 | We live on the other side of the highway and she is to little to walk or bike across the highway . |
| 1471955 | My Kindergarten age child has to walk to school. He is lucky to have a big brother who is available to walk with him to and from school right now. When the older brother gets a job, that will likely change. We do not feel that it is safe for our Kindergartener to walk to school and home on his own. This is just too young. |
| 1472316 | Parents work schedule pushes to have child in Tiger Club, once old enough to be home alone, then we'll let them walk. Thanks |
| 1471965 | I would love to see patrols available for pickup and drop off especially for all elementary students. intersections are too busy and the walks are long and can be dark especially if they are alone and in kindergarten or 1st grade. thanks for your consideration. |
| 1472433 | Bottom line for us is the safety of dressing highway 65 and the harsh winter weather |
| 1471947 | Even if we did have sidewalks and a safe way for my son to cross our street I would be leery of allowing him to walk because no one clears and maintains their sidewalks in the winter months. The risk of a slip and fall or being forced to walk in the street because the sidewalk is unsafe is a big deal to me. Also I don't trust drivers in fridley to slow down even if the speed limits were reduced. This is not a safe city to walk in unless it's the summer. |
| 1472129 | I would never let my kids ride their bikes to school based on the fact they would have to cross highway 65 and that is WAY too dangerous. |
| 1472416 | I do NOT feel comfortable allowing my kindergartener to walk home from school unaccompanied, no matter the distance. She is walking "home" to a daycare which cannot meet her at the crossing guard. This makes pick up very difficult to arrange with our family's schedule. I would appreciate an exemption to allow kindergarteners to ride the bus no matter the distance from school. It ensures safety and hand-to-hand drop off. |
| 1471990 | I would feel more comfortable with my child walking to and from school if he was accompanied by an adult with my work schedule it doesn't allow that. I wish there was some form of transportation for children who live closer to the school and who fall into the walking zone that was provided by the school. |
| 1471874 | We are out of district. My child is open enrolled. |
| 1472052 | I would like the bike racks at the elementary school to be more convenient. It is discouraged formkids to ride their bikes. I would like my son to ride his bike. The speed of traffic on Mississippi is a concern. I realize that the county vs. city rd is a concern that has been a problem at Hayes for a long time. There is a police presence at the middle school and high school. It would be helpful to have some presence at Hayes to slow down the traffic. I'm glad the schools are having this conversation and making this a |

| | |
|---|---|
| | priority. Thanks for this opportunity |
| 1471937 | Walking/Biking to school is not an option for my child, as she is open enrolled and we live 25 min from her school. I don't think this survey should assume that we feel walking/biking is unsafe, or that my child is unhealthy because she doesn't walk/bike; for some families it is not an option. |
| 1472127 | The never bike for me school because to far away for them, Sametime we pike them frome school |

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# Appendix G. Student Hand Tally

The following is a summary of a hand tally of student transportation behavior. In the fall of 2016, students at Hayes Elementary were asked how they traveled to and from school on a number of midweek school days. This report is a direct export from the National Safe Routes to School Data Collection System, which processed the tallies and generated this report.

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

**School Name:** Hayes Elementary School

**School Group:** Fridley SRTS

**School Enrollment:** 0

**% of Students reached by SRTS activities:** Don't Know

**Number of Classrooms Included in Report:** 18

**Set ID:** 21799

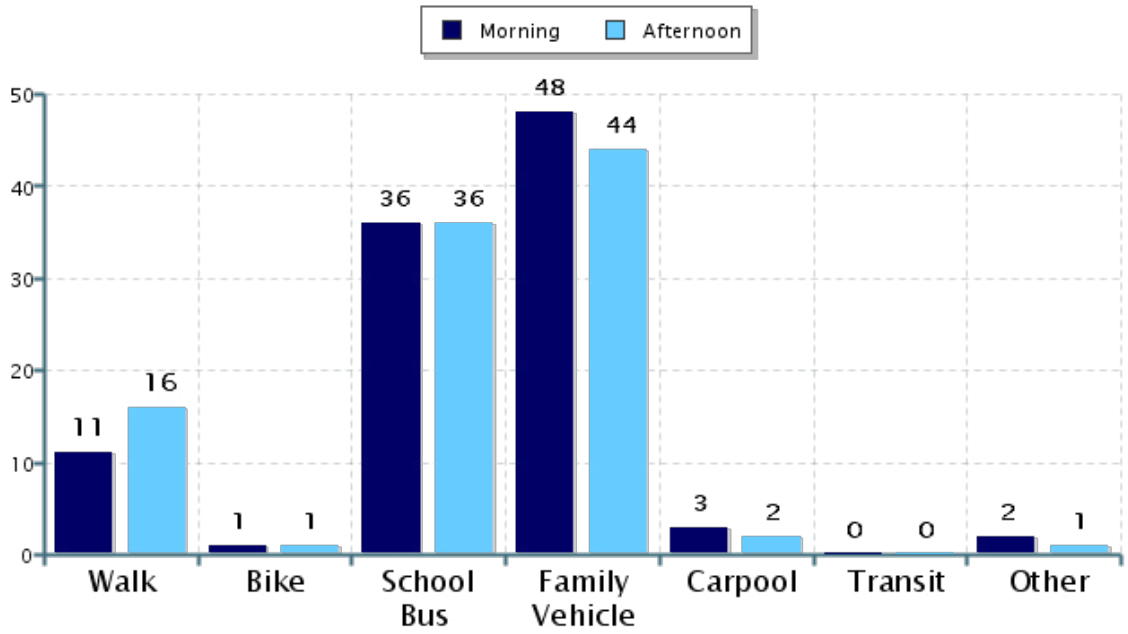
**Month and Year Collected:** September 2016

**Date Report Generated:** 10/27/2016

**Tags:**

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

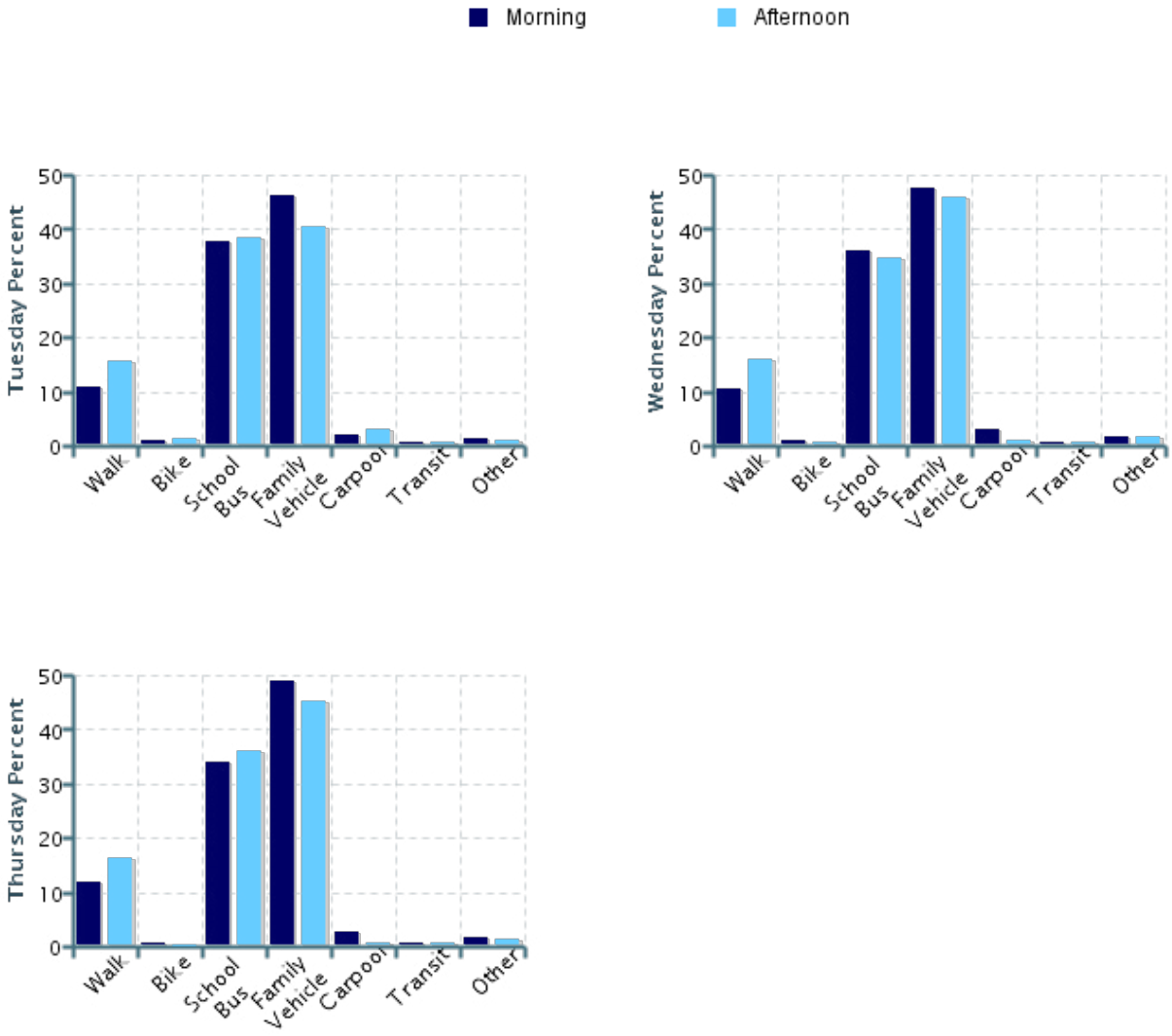



### Morning and Afternoon Travel Mode Comparison

| | Number of Trips | Walk | Bike | School Bus | Family Vehicle | Carpool | Transit | Other |
|---|---|---|---|---|---|---|---|---|
| Morning | 1036 | 11% | 0.8% | 36% | 48% | 3% | 0.3% | 2% |
| Afternoon | 947 | 16% | 0.6% | 36% | 44% | 2% | 0.4% | 1% |

Percentages may not total 100% due to rounding.

## Morning and Afternoon Travel Mode Comparison by Day

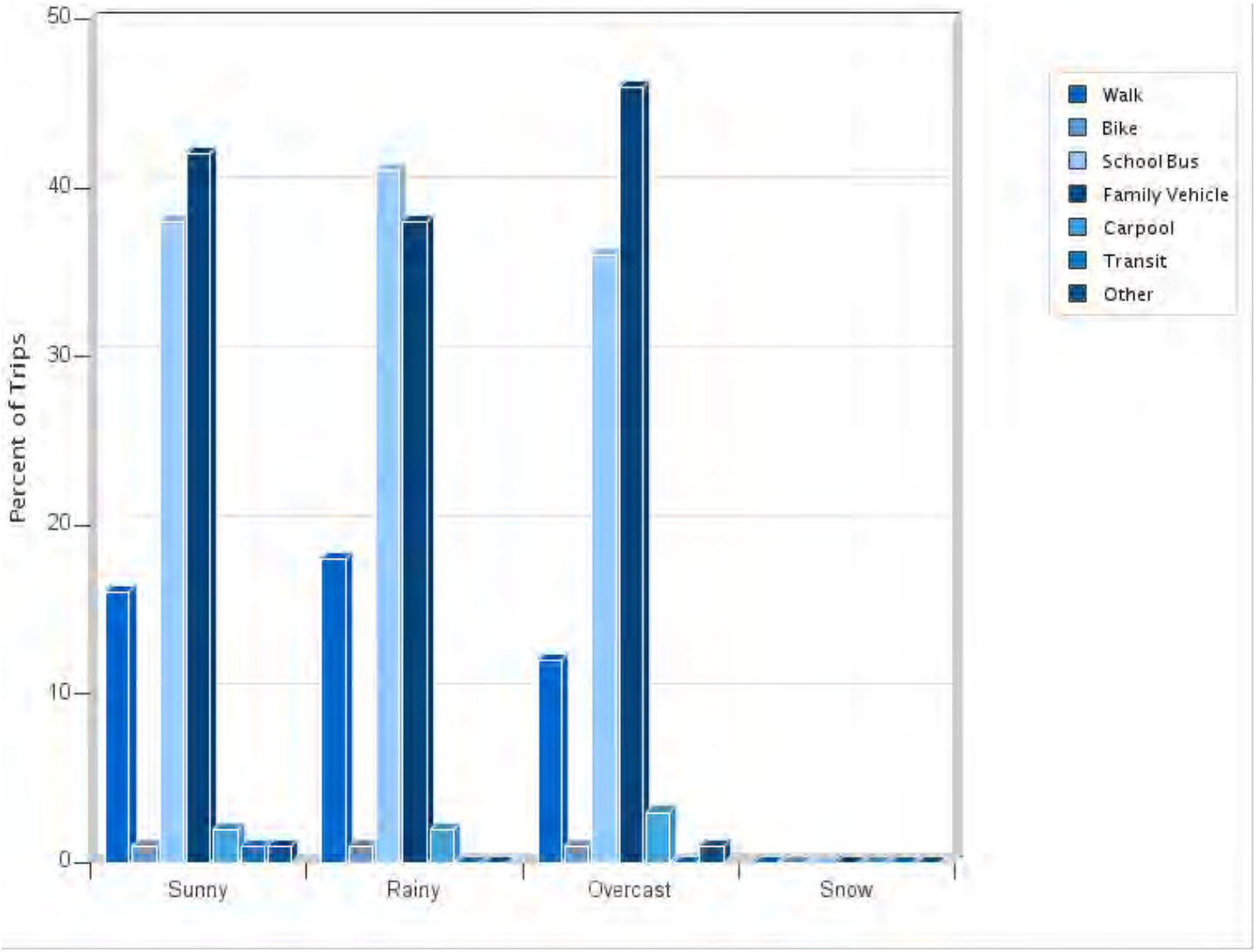



## Morning and Afternoon Travel Mode Comparison by Day

| | Number of Trips | Walk | Bike | School Bus | Family Vehicle | Carpool | Transit | Other |
|---|---|---|---|---|---|---|---|---|
| Tuesday AM | 354 | 11% | 1% | 38% | 46% | 2% | 0.3% | 1% |
| Tuesday PM | 334 | 16% | 1% | 38% | 40% | 3% | 0.6% | 0.9% |
| Wednesday AM | 351 | 11% | 0.9% | 36% | 48% | 3% | 0.3% | 2% |
| Wednesday PM | 324 | 16% | 0.6% | 35% | 46% | 0.9% | 0.3% | 2% |
| Thursday AM | 331 | 12% | 0.3% | 34% | 49% | 3% | 0.3% | 2% |
| Thursday PM | 289 | 16% | 0% | 36% | 45% | 0.7% | 0.3% | 1% |

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 | 387 | 16% | 0.5% | 38% | 42% | 2% | 0.5% | 0.8% |
| Rainy | 102 | 18% | 1.0% | 41% | 38% | 2% | 0% | 0% |
| Overcast | 1081 | 12% | 0.6% | 36% | 46% | 3% | 0.5% | 1% |
| Snow | 0 | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

Percentages may not total 100% due to rounding.

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# Appendix H. Infrastructure Toolbox

This infrastructure toolbox provides an overview of different infrastructure projects. Each infrastructure project includes a pictorial representation, a brief description, and a list of resources for more specific engineering guidelines.

## ADVANCED STOP BAR


### Description

An advanced stop bar is a solid white line painted ahead of crosswalks on multi-lane approaches to alert drivers where to stop to let pedestrians cross. It is recommended that advanced stop bars be placed twenty to fifty feet before a crosswalk. This encourages drivers to stop back far enough for a pedestrian to see if a second motor vehicle is approaching, reducing the risk of a hidden-threat collision. Advanced stop bars can also be used with smaller turning radii to create a larger effective turning radius to accommodate infrequent (but large) vehicles.

### Resources

- Reducing Conflicts Between Motor Vehicles and Pedestrians: The Separate and Combined Effects of Pavement Markings and a Sign Prompt
- FHWA Signalized Intersections: Informational Guide – Pages: 192- 193
- MN MUTCD: Part 3. Markings – Page: 3B-32
- NACTO Urban Street Design Guide – Pages: 109-116, 144

## CROSSING GUARD

### Description

Facilitated crossings are marked crossing locations along student routes where adult crossing guards or trained student patrols are stationed to assist students with safely crossing the street. Facilitated crossings may be located on or off campus. Determining whether a location is more appropriate for an adult crossing guard or student patrol may be based on location including distance from school, visibility, and traffic characteristics. Adult crossing guards and student patrols receive special training, and are equipped with high-visibility traffic vests and flags when on duty.

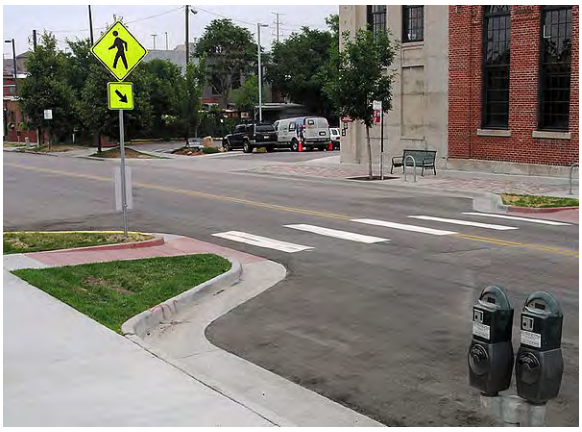
### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 25-26
- MnDOT Minnesota Safe Routes to School: School Crossing Guard Brief Guide
- MN MUTCD: Part 7. Traffic Controls for School Areas – Pages: 7D-1-2

## CURB EXTENSION/BULB OUT

### Description

Curb extensions extend the sidewalk and curb into the motor-vehicle parking lanes at intersection locations. Also called bump-outs, these facilities improve safety and convenience for people crossing the street by shortening the crossing distance and increasing visibility of people walking or biking to those driving.



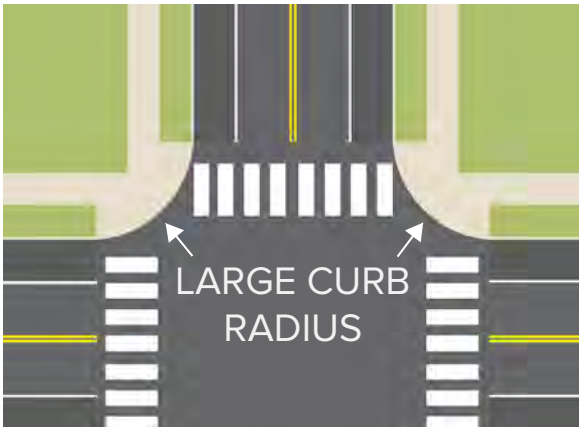
### Resources

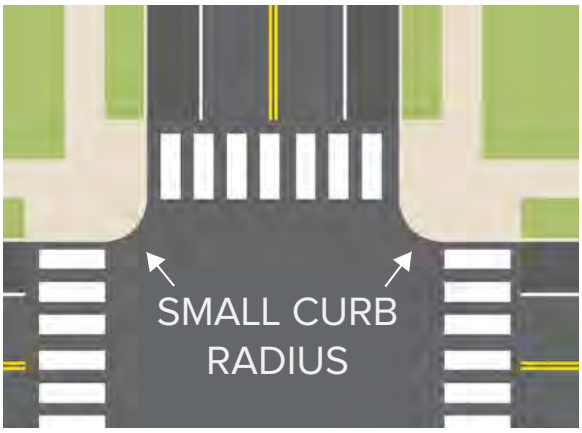
- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 11-12
- FHWA Effects of Traffic Calming Measures on Pedestrian and Motorist Behavior – Pages: 6-11
- FHWA Signalized Intersections: Informational Guide – Pages: 190-192
- NACTO Urban Street Design Guide – Pages: 45-59

## CURB RADIUS REDUCTION

### Description

Curb radii designs are determined based on the design vehicle of the roadway. In general, vehicles are able to take turns more quickly around corners with larger curb radii. Minimizing curb radii forces drivers to take turns at slower speeds, making it easier and safer for people walking or biking to cross the street. An actual curb radius of five to ten feet should be used wherever possible, while appropriate effective turning radii range from 15 to 30 feet, depending on the roadway and land use context.




### Resources

- FHWA Signalized Intersections: Informational Guide – Pages: 187-189
- NACTO Urban Street Design Guide – Pages: 117-120, 144-146

## CURB RAMPS

### Description

Curb ramps provide access for people between roadways and sidewalks for people using wheelchairs, strollers, walkers, crutches, bicycles or who have mobility restrictions that make it difficult to step up or down from curbs. Curb ramps must be installed at intersections and mid-block crossings where pedestrian crossings are located, as mandated by federal law. Separate curb ramps should be provided for each direction of travel across the street.

### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 1-2
- FHWA Signalized Intersections: Informational Guide – Pages: 47-50
- United States Access Board Proposed Accessibility Guidelines for Pedestrian Facilities in Public Right-of-Way – Pages: 66-67, 78-83

## HAWK SIGNALS

### Description


The High-Intensity Activated Crosswalk Beacon (HAWK), also referred to as a Pedestrian Hybrid Beacon System by MnDOT, remains dark until activated by pressing the crossing button. Once activated, the signal responds immediately with a flashing yellow pattern which transitions to a solid red light, providing unequivocal 'stop' guidance to motorists. HAWK signals have been shown to elicit high rates of motorist compliance.

### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 13-15
- FHWA Safety Effectiveness of the HAWK Pedestrian Crossing Treatment
- FHWA Evaluation of Pedestrian and Bicycle Engineering Countermeasures: Rectangular Rapid-Flashing Beacons, HAWKs, Sharrows, Crosswalk Markings, and the Development of an Evaluation Methods Report – Pages: 19-28

## HIGH-VISIBILITY CROSSWALK

### Description

High-visibility crosswalks help to create a continuous route network for people walking and biking by alerting motorists to their potential presence at crossings and intersections. Crosswalks should be used at fully controlled intersections where sidewalks or shared-use paths exist.

### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 3-8
- MnDOT Guidance for Installation of Pedestrian Crosswalks on Minnesota State Highways – Page: 3
- MN MUTCD: Part 3. Markings – Pages: 3B-34-38
- MN MUTCD: Part 7. Traffic Controls for School Areas – Pages: 7A-1-3, 7B-5-8, 7C-1
- NACTO Urban Street Design Guide – Pages: 109-116

## LEADING PEDESTRIAN INTERVAL

### Description

A Leading Pedestrian Interval (LPI) provides pedestrians with a three to seven second head start when entering an intersection with a corresponding green signal in the same direction of travel. LPIs enhance the visibility of pedestrians in the crosswalk, and reinforce their right-of-way over turning vehicles. LPIs are most useful in areas where pedestrian travel and turning vehicle volumes are both high.

### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 20-22
- NACTO Urban Street Design Guide – Page: 128

## MEDIAN REFUGE ISLAND

### Description

Median refuge islands (also known as median crossing islands) make crossings safer and easier by dividing them into two stages so that pedestrians and bicyclists only have to cross one direction of traffic at a time. Median refuges can be especially beneficial for slower walkers including children or the elderly. Crossing medians may also provide traffic calming benefits by visually narrowing the roadway.

### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 9-10, 43-44
- FHWA Effects of Traffic Calming Measures on Pedestrian and Motorist Behavior – Pages: 17-20
- FHWA Proven Safety Countermeasures: Medians and Pedestrian Crossing Islands in Urban and Suburban Areas
- MN MUTCD: Part 3. Markings – Page: 3I-2
- NACTO Urban Street Design Guide – Page: 116

## RAISED CROSSWALKS

### Description

Raised crosswalks are wide and gradual speed humps placed at pedestrian and bicyclist crossings. They are typically as high as the curb on either side of the street, eliminating grade changes for people crossing the street. Raised crosswalks help to calm approaching traffic and improve visibility of people crossing.

### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 3-4
- FHWA Effects of Traffic Calming Measures on Pedestrian and Motorist Behavior – Pages: 12-15
- MN MUTCD: Part 3. Markings – Pages: 3B-46-49
- NACTO Urban Street Design Guide – Page: 54

## RECTANGULAR RAPID FLASHING BEACON (RRFB)

### Description

An RRFB uses an irregular stutter flash pattern with bright amber lights (similar to those on emergency vehicles) to alert drivers to yield to people waiting to cross. The RRFB offers a higher level of driver compliance than other flashing yellow beacons, but lower than the HAWK signal.

### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 16-17
- FHWA Effects of Yellow Rectangular Rapid-Flashing Beacon on Yielding at Multi-lane Uncontrolled Crosswalks
- FHWA Evaluation of Pedestrian and Bicycle Engineering Countermeasures: Rectangular Rapid-Flashing Beacons, HAWKs, Sharrows, Crosswalk Markings, and the Development of an Evaluation Methods Report – Pages: 13-18

## ROAD DIET

### Description

A classic road diet converts an existing four-lane roadway to a three-lane cross-section consisting of two through lanes and a center two-way left turn lane. Road diets improve safety by including a protected left-turn lane, calming traffic, reducing conflict points, and reducing crossing distance for pedestrians. In addition, road diets provide an opportunity to allocate excess roadway for alternative uses such as bike facilities, parking, transit lanes, and pedestrian or landscaping improvements.

### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 29-31
- FHWA Road Diet Desk Reference
- FHWA Road Diet Informational Guide
- NACTO Urban Street Design Guide – Page: 14

## SCHOOL SPEED ZONE

### Description

School speed zones reduce speed limits near schools, and alert motorists that they are driving near a school. School speed zones are defined as the section of road adjacent to school grounds, or where an established school crossing with advance school signs is present. Each road authority may establish school speed zone limits on roads under their jurisdiction. In general, school speed limits shall not be more than 30 mph below the established speed limit, and may not be lower than 15 mph. Speed violations within school speed zones are subject to a double fine.


### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 48-51
- MnDOT School Zone Speed Limits
- MN MUTCD: Part 7. Traffic Controls for School Areas – Section: 7E

## SHARED USE PATH

### Description

Shared-use paths provide off-road connections for people walking and biking. Paths are often located along waterways, abandoned or active railroad corridors, limited access highways, or parks and open spaces. Shared-use paths may also be located along high-speed, high-volume roads as an alternative to sidewalks and on-street bikeways; however, intersections with roadways should be minimal. Shared-use paths are generally very comfortable for users of all ages and abilities.

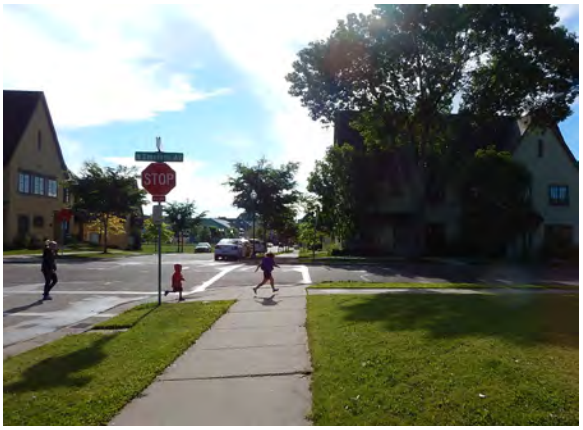
### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Page: 2
- MnDOT Bikeway Facility Design Manual – Pages: 123-168
- AASHTO Guide for the Development of Bicycle Facilities – Chapter 5

## SIDEWALKS

### Description

A well-connected sidewalk network is the foundation of pedestrian mobility and accessibility. Sidewalks provide people walking with space to travel within the public right-of-way that is separated from roadway vehicles. Sidewalks are associated with significant reductions in motor vehicle / pedestrian collisions.




### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 1-2
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities
- NACTO Urban Street Design Guide – Pages: 37-44
- United States Access Board Proposed Guidelines for Pedestrian Facilities in Public Right-of-Way

## TRAFFIC CIRCLES (MINI ROUNDABOUTS)

### Description

Traffic circles are raised circular islands constructed in the center of residential intersections. They may take the place of a signal or four-way stop sign, and calm vehicle traffic speeds by forcing motorists to navigate around them without requiring a complete stop. Signage should be installed with traffic circles directing motorists to proceed around the right side of the circle before passing through or making a left turn.

### Resources

- MnDOT Minnesota's Best Practice for Pedestrian and Bicycle Safety – Pages: 43-44
- FHWA Technical Summary: Mini-Roundabouts
- FHWA Technical Summary: Roundabouts – Page: 7 (mention of school area siting)
- MN MUTCD: Part 3. Markings – Pages: 3C1-15
- NACTO Urban Street Design Guide – Page: 99

# Appendix I. Bike Parking for Schools

Bicycle parking at schools does more than just provide space for storage during the school day. Depending on design, bicycle parking can actually encourage students and staff to choose to ride their bikes to school. Here are some things to think about when planning bicycle parking at school.

## HOW MUCH PARKING SHOULD BE PROVIDED?

The amount of bike parking needed will depend on the capacity of your school, the ages of students, and the number of staff. But remember: be aspirational! Provide parking for the number of students and staff you'd like to see biking! The following are some guidelines:

- 25 percent of the maximum student capacity of the school.
- Additional parking to encourage staff and faculty to bike to school

*For example, if each classroom has a max capacity of 20 students and there are 10 classrooms, space for 50 bicycles should be provided. Don't forget to add some for faculty and staff!*

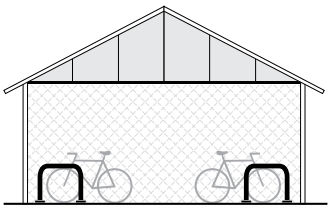
## WHERE SHOULD PARKING BE LOCATED?

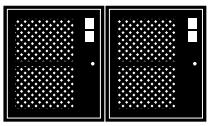
Well-located bike parking will be:

- visible to students, staff, and visitors
- near the primary school entrance/exit
- easily accessed without dismounting
- clear of obstructions which might limit the circulation of users and their bikes
- easily accessed without making a rider cross bus and car circulation
- installed on a hard, stable surface that is unaffected by weather
- often found near kindergarten and daycare entrance, which allows parents to conveniently pick up their children on their bikes

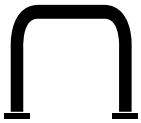
## CAN MY SCHOOL PROVIDE ADDITIONAL AMENITIES?

Bike parking shelters and lockers provide extra comfort and security for those choosing to ride to school. They're also a great project for a shop class. Both can be very simple in construction and go a long way towards making biking attractive and prioritized!





## WHICH RACKS ARE BEST?



INVERTED U

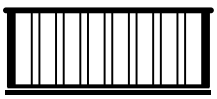
POST & RING

WHEELWELL SECURE

*These racks provide two points of contact with the bicycle, accommodate varying styles of bike, allow for at least one wheel to be U-locked, and are intuitive to use!*

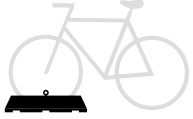
## WHICH RACKS ARE NOT RECOMMENDED?

WAVE



COMB

SPIRAL

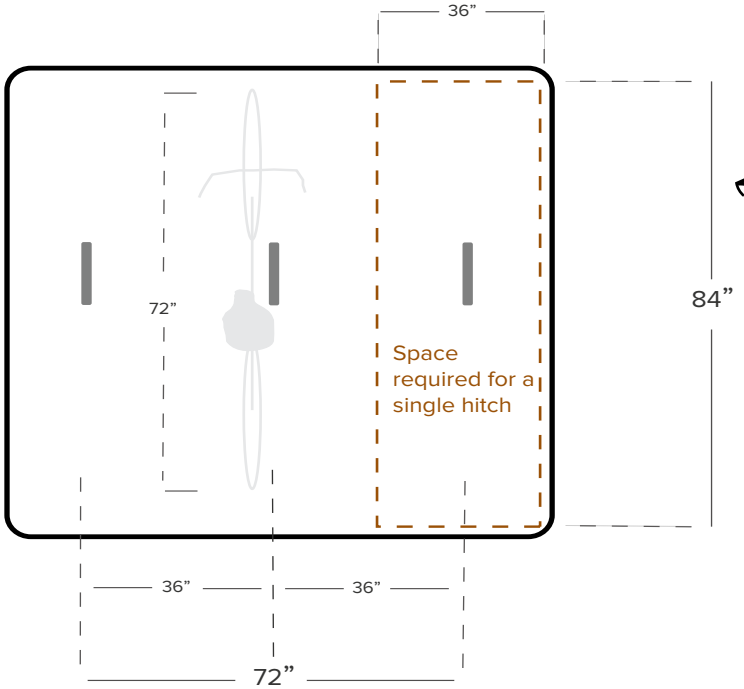


WHEELWELL

*These racks do not provide support at two places on the bike, can damage the wheel, do not provide adequate security, and are not intuitive to use!*

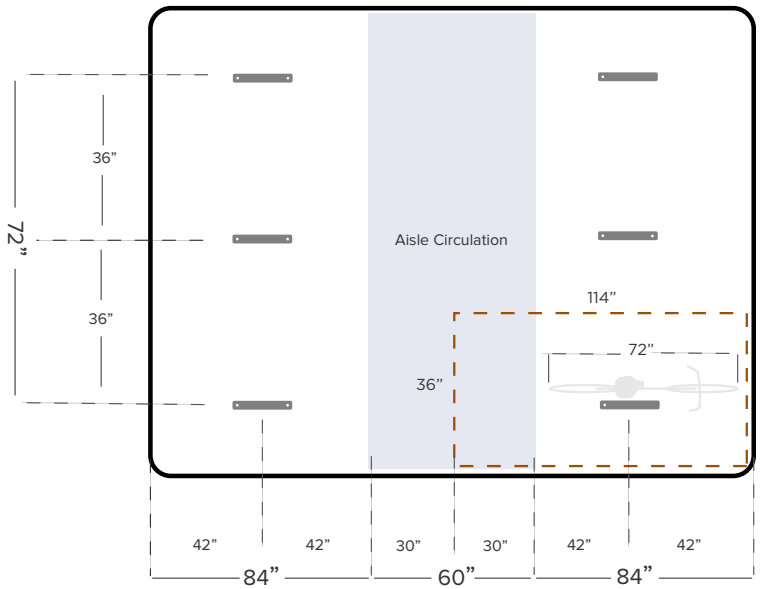
*Graphics courtesy of Association of Pedestrian and Bicycle Professionals Essentials of Bike Parking report (2015).*

## SPACE REQUIREMENTS




The space requirements shown here assume a person parking their bike would have open access forward and from behind.

The space requirements shown here assume the area is confined on either side (left and right). Access is located at the top and bottom of the image, requiring a center aisle for circulation.




Space required for a single hitch

## RESOURCES FOR EQUIPMENT

Dero
Sportworks
Urban Racks

## MORE INFORMATION

APBP Essentials of Bike Parking
Bike Shelter Development Guide -Portland Public Schools

# Appendix J. Maintenance Planning

## ANNUAL MAINTENANCE

School routes and crosswalks should be prioritized for maintenance. To ensure high visibility crosswalks maintain their effectiveness, review all crosswalks within one block of the school each year. If there is notable deterioration, crosswalks should be repainted annually. In addition, crosswalks on key school walk routes should be evaluated annually and repainted every other year or more often as needed.

## SEASONAL PLANNING AND MAINTENANCE

Walking and cycling generally diminish during the cold winter months as poorly maintained infrastructure and unpleasant weather conditions create barriers for pedestrians and bicyclists. However, maintaining infrastructure and planning inviting winterscapes for students can facilitate the convenience of biking and walking as well as provide new opportunities to encourage students to be outside more.

Snow removal and maintenance of school routes should be prioritized. Snow removal is a critical component of pedestrian and bicycle safety. The presence of snow or ice on sidewalks, curb ramps, or bikeways will deter pedestrian and cyclist use of those facilities to a much higher degree than cold temperature alone. Families with children will avoid walking in locations where ice or snow accumulation creates slippery conditions that may cause a fall. Curb ramps that are blocked by ice or snow effectively sever access to pedestrian facilities. Additionally, inadequately maintained facilities may force pedestrians and bicyclists into the street. Identified routes to school should be given priority for snow removal and ongoing maintenance.

While it is important to prioritize maintenance, additional planning should be employed to create new opportunities to encourage students to be outside more through design. According to the City of Edmonton's Winter Design Guidelines, the five main design principles for designing cities that are inviting and functional for outdoor public life year-round include blocking wind, capturing sunshine, using color, lighting, and providing infrastructure that supports desired winter activities.

Strategies to block wind in the winter include grading land that blocks cold winds from the north and northwest. Other strategies include planting trees and/or piling snow along the north and west sides of streets, properties, parks, and trails to provide shielding from the wind. Buildings along streets can also use canopies, colonnades, and setbacks to block wind and create more inviting street-level walking conditions.

Another way to create an inviting pedestrian and bicycle environment is to employ strategies that maximize limited winter sunshine. Deciduous trees that drop their leaves in winter allow sunshine to filter down to streets and sidewalks. Building setbacks can also allow more sunshine to reach pedestrian areas in the form of wider sidewalks. Creative public art can also capture and reflect sunlight that also provides fun and engaging elements on walks and bicycle trips for students to enjoy their travel.

Using warm colors and warm building materials can also contribute to a sense of warmth for the winter pedestrian or bicyclist. When people feel warmer, their attitude improves and they have a greater resilience for being outside in temperatures that they may not normally consider as comfortable. For students with creative imaginations or who need extra stimuli to engage their interest in biking or walking, colorful building facades, public art elements, and wayfinding may encourage them to walk or bike not only in the winter, but year-round.

Lighting is also an element that is important year-round, but becomes increasingly important in the winter for creating more inviting winterscapes for pedestrians and bicyclists. Lighting can contribute to inducing a sense of warmth and safety, as well as be used for wayfinding and as passive public art displays.

Lastly, providing infrastructure that supports desired winter activities can also encourage more active transportation. Some particularly encouraging strategies beyond providing ice skating rinks that have been employed in Edmonton, Canada include harnessing plowed snow piles and stored snow to create new play opportunities for students. These snow piles can be strategically placed in parks along walking routes and mounded into winter slides. Other practices have included regularly compacting snow to make it malleable enough for students to construct their own snow house structures, with maintenance crews compacting the snow every few days to prevent it from forming into denser ice.

### Resources

Winter Design Guidelines: Transforming Edmonton into a Great Winter City
https://www.edmonton.ca/city_government/documents/PDF/WinterCityDesignGuidelines_draft.pdf

# Appendix K. Equity in SRTS Planning

When planning and implementing your SRTS programming, it is important to design events and activities that are inclusive of students of all backgrounds and abilities. The population of the City of Fridley is approximately 70% Caucasian with 30% of the population identifying as people of color. Poverty levels are similar to the national rate. This appendix identifies potential obstacles to participation and suggests creative outreach, low-cost solutions, and flexible program implementation to address language barriers, students with disabilities, personal safety concerns, and barriers related to school distance.

## LANGUAGE AND/OR CULTURAL BARRIERS

To encourage families that do not speak English, are learning English, or have recently immigrated to participate in Safe Routes to School programs, it is important to communicate how the program can benefit families and address parental concerns. Hiring a bilingual staff person is the best way to communicate and form relationships with a community.

### Provide Materials in Multiple Languages

Some concepts can lose their meaning and be confusing when translated literally. Also, words may have different meanings depending on the regional dialect.

- Ask families with native speakers to help communicate the message to others.
- Use images to supplement words so that handouts are easy to read and understand.

### Use a Variety of Media

In schools where families speak different languages, it can be a good idea to present information in multiple ways.

- Use a variety of mechanisms to communicate the benefits of walking and bicycling to parents.
- Have students perform to their parents, such as through a school play.
- Encourage youth-produced PSAs to educate parents on why biking and walking are fun and healthy events.
- Provide emails, print materials, etc., in multiple languages.
- Use a phone tree, PTA, or events to reach parents.
- Engage an assistant who speaks multiple languages to reach out to parents at events.
- Employ staff from similar ethnic backgrounds to parents at the school.
- Parents increasingly use texting more than emails. Find out how parents communicate with each other and use their methods.

### Meet People Where They Are

Some families may not feel comfortable coming to your events or participating in formal PTA and organizations.

- Attend established meetings to reach groups who may not participate in school PTAs or other formal meetings.
- State required English Learner Advisory Committees (ELACs) are good partners.
- Conduct outreach or table at school events (such as: Movie nights, family dance nights, Back to School nights, etc.).

Residents are often aware of traffic and personal safety issues in their neighborhoods, but don't know how to address them.

- Provide a safe place for parents to voice concerns to start the conversation about making improvements. Listen to their concerns, help parents prioritize, and connect them with the responsible agency to address the concerns.
- Encourage staff or parent volunteers to host house meetings, in which a small group gathers at the home of someone they know to voice concerns and brainstorm solutions.
- Seek common goals for community improvement that can be addressed through collaborative efforts with all parent groups.
- Consider inviting law enforcement or public works staff to build a better relationship between officers and residents so they feel comfortable voicing future concerns. Note that some groups may have complex relationships of police mistrust, such as among undocumented communities. Again, asking for police representatives who are from the community works best.
- When looking for volunteers, start by looking to friends and neighbors to build your base group.
- Be creative; consider going to community events like Farmer's Markets and neighborhood gathering spots to recruit. Try different ways of engaging with participants; the City as Play Design Workshops have creative ideas

for asking attendees to build their visions.
- Look for small victories: adding a crossing guard, signage and paint gives parents confidence that their issues can be addressed.

### Host Parent Workshops

All parents desire for their children to be successful. Workshops are a good opportunity to articulate how services and programs can reduce barriers to students' success and help them be successful.

- Create simple ways for parents to get involved and help put on events and activities with their children, who can often help navigate the situation.
- Hold a "Parent University," or workshops where parents can voice their concerns.
- Listen to and act on parents' suggestions to build trust in the community and address concerns.
- Include an icebreaker activity to introduce yourself and to make the participants more comfortable sharing their thoughts and opinions.

### Establish Flexible Programs

Create a trusting and welcoming environment by not requiring participants to provide information about themselves, which could be a deterrent to undocumented immigrants.

- Establish a training program for volunteers that does not require background checks or fingerprints since some parents who would like to volunteer may not be able to pass background checks.

Often working parents have limited time to volunteer with their children's schools. The hours and benefits associated with many jobs can make it challenging for parents to be available for school activities and take paid time off.

- Host meetings and events at varying times to accommodate differing work schedules.
- Make specific requests and delegate so no single person has to do the majority of the work.

### Communicate Health Benefits

Families who are less well-connected to the school community may not be as aware of the benefits of SRTS programming.

- Publicize to parents that walking and biking to school is exercise and to children that it is fun, like an additional recess.
- Health fairs can highlight biking and walking to create an association between those commute options and their benefits. Encouragement competitions such as the Golden Sneaker Award and Pollution Punch Card can show how many calories students have burned.

## STUDENTS WITH DISABILITIES

Some students may not be able to walk or bike to school because of physical or mental disabilities, but they can still be included in SRTS programs.

- Invite children with physical disabilities to participate in school infrastructure audits to learn how to improve school access for all.
- Students with mental disabilities may have differing capacities for retaining personal and traffic safety information, but programs like neighborhood cleanups and after-school programs can be fun ways to socialize and participate with other students.
- Involve special education instructors and parents of disabled students in the planning and implementation of these programs to better determine the needs of children with disabilities.
- Create SRTS materials that recognize students with disabilities. Include pictures of students with disabilities in program messaging to highlight that SRTS programs are suitable for all students.

### Additional Resources

- National Center for SRTS's Involving Students with Disabilities http://saferoutesinfo.org/sites/default/files/resources/Involving_students_with_disabilities.pdf
- SRTS National Partnership's: Students with Disabilities http://www.saferoutespartnership.org/sites/default/files/pdf/Serving_Students_with_Disabilities_SRTSNP_11_4_09_FINAL.pdf

## PERSONAL SAFETY CONCERNS

In some communities, personal safety concerns associated with crime activity is a significant barrier to walking

and bicycling. These can include issues of violence, dogs, drug use, and other deterrents that can take precedence over SRTS activities in communities. These neighborhoods may lack sidewalks or other facilities that offer safe access to school, and major roads may be barriers.

## COMMUNITY-BASED PROGRAMS

### Neighborhood Watch Programs

Establishing neighborhood crime watches, parent patrols, and safety zones can involve the community in addressing personal safety concerns as supervision reduces the risk of bullying, crime, and other unsafe behavior.

- Set up parent patrols to roam areas of concern. Safe Passages or Corner Captain programs station parent or community volunteers on designated key street corners to increase adult presence to watch over children as they walk and bicycle to school.
- Issue special hats, vests, or jackets to give the volunteers legitimacy and identify them as patrol leaders.
- Walkie-talkies allow parents to radio for help if they are confronting a situation they have not been able to resolve.
- Work to identify "safe places" like a home along the route where children can go to in the event of an emergency, or create a formal program with mapped safe places all children can go to if a situation feels dangerous.

### SchoolPool with a Group

SchoolPool, or commuting to school with other families and trusted adults, can address personal safety concerns about traveling alone.

- Form Walking School Buses, Bike Trains, or carpools. For information about how to set up a SchoolPool at your school, read the Spare the Air Youth SchoolPool guidebook. http://www.sparetheairyouth.org/schoolpool-guidebook
- SchoolPools are a great way of building community. See resources online at www.sparetheairyouth.org/walkingschool-buses-bike-trains for more information.

### Sponsor Neighborhood Beautification Projects

Clean neighborhoods free of trash and graffiti can create a sense of safety and help reduce crime rates.

- Host neighborhood beautification projects around schools, such as clean-up days, graffiti removal, and tree planting to help make families feel more comfortable and increase safety for walking or biking to school.
- Host a community dialogue about positive and negative uses of public space.

### Education Programs

Teach students and their families about appropriate safety issues. Parents may not want students to walk or bike if they are not confident in their child's abilities.

Safety Information for Students

- Use time at school, such as during recess, PE, or no-cost after school programs, to teach children how to bike and walk safely.
- Utilize either existing curricula or bring in volunteer instructors from local advocacy groups and non-profit organizations.
- Teach children what to do in the event of an emergency and where to report suspicious activity or bullying.
- Provide helmets and bikes during the trainings will allow all students to participate regardless of whether or not they have access to these items.
- Open Streets events such as San Francisco's Sunday Streets, Oakland's Oaklavia, and others are also a great way of creating safe zones to teach new skills in the street.

### Safety Information for Parents

- Provide information about how to get to around safely.
- Develop and distribute suggested routes to school maps that highlight streets with amenities like sidewalks, lighting, low speeds, and less traffic.
- Identify informal shortcuts and cutthroughs that students may take to reduce travel time. Consider whether these routes may put students at risk (for example, by cutting through a fence, across a field, or near railroad

tracks) and work with your city planners to improve the route.
- Provide flyers for parents about how to find other families groups to commute with or what to do in the event of an emergency to educate themselves and their children.
- Offer pedestrian safety training walks. Make these fun and interactive and address parents' safety concerns as well as provide tips for them to teach their children to be safe while walking.

### Resources
- SRTS National Partnership's Implementing Safe Routes to School in Low-Income Schools and Communities http://www.saferoutespartnership.org/sites/default/files/pdf/LowIncomeGuide.pdf

## BARRIERS RELATED TO SCHOOL DISTANCE

Some students simply live too far from school to reasonably walk or bike. However, there are programs that may be implemented to include these students in healthy physical activities, such as walking or biking.

### Remote Drop-off
- Suggest remote drop-offs for parents to drop their children off a couple blocks from the school so they can walk the rest of the way. Volunteers wait at the drop-off and walk with students at a designated time to ensure they arrive to school safely and on time
- Remote drop-off sites can be underutilized parking lots at churches or grocery stores that give permission for their property to be used this way.
- Identify potential park and walk areas on route maps.

### Walk to School Bus Stops
- Incorporate physical activity into students' morning schedule by encouraging them to walk to bus stops.
- Utilize walking school bus programming to organize nearby students to walk in groups to a more centrally located bus stop, which may translate into fewer bus stops because more students will be boarding at each stop.

### Frequent Walker Programs
- Students who still arrive to school by bus and parent vehicle do not have to miss out on the physical benefits provided by walking if programming is implemented
- Implement programs that identify walking opportunities on campus, which can be defined in terms of routes or by amount of time spent walking.

### Additional Resources
- Rural Communities: Making Safe Routes Work
- http://www.saferoutespartnership.org/sites/default/files/pdf/Lib_of_Res/SR2S_Rural_making%20SR%20work_20150331.pdf
- Rural Communities: Best Practices and Promising Approaches for Safe Routes
- http://www.saferoutespartnership.org/sites/default/files/pdf/Lib_of_Res/SR2S_Rural_best%20practices_2015033.pdf
- Rural Communities: A Two Pronged Approach for Improving Walking and Bicycling
- http://www.saferoutespartnership.org/sites/default/files/pdf/Lib_of_Res/SR2S_Rural_2pronged%20approach_20150331.pdf

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# Appendix L. Existing School Maps

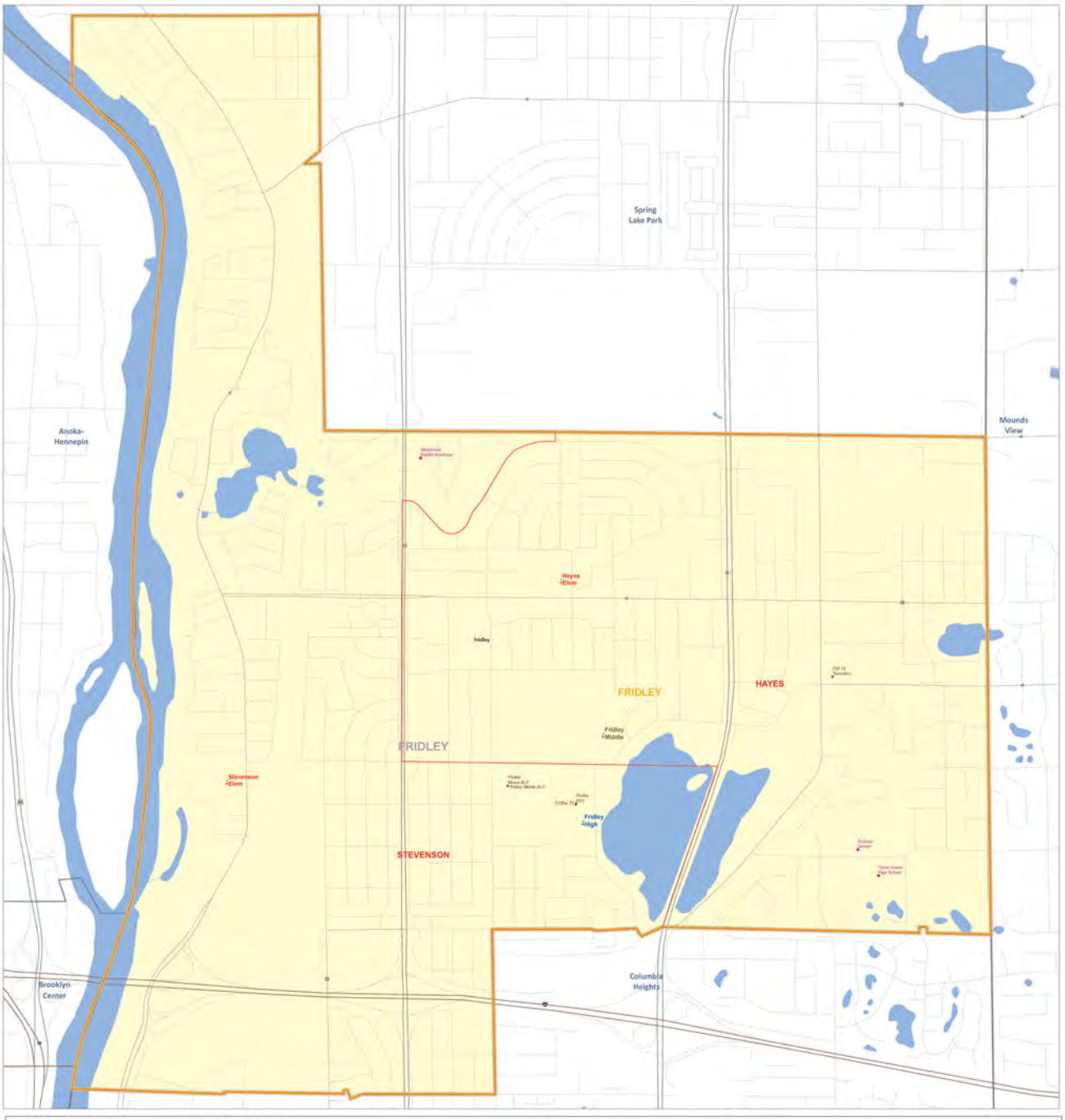
## WALK ZONE MAP

# Public School District Attendance Areas and Educational Facility Locations

SY2013-2014

**Fridley**
**14**

Map 1 of 1




**Public Educational Facilities or Programs**
- Elementary school
- Middle / Junior high school
- High / Secondary school
- School District Office
- Non-Public school
- Public Charter school
- Other School Program (examples):
  - Area Learning Center (ALC)
  - Area Learning Program (ALP)
  - Targeted Services
  - College/University
  - Correctional
  - Secondary Education

**Public School Attendance Areas**
- Elementary School Attendance Area ELEM
- Middle School Attendance Area MIDD
- High School Attendance Area HIGH

**Public School Districts**
- School District
- Adjacent School District
- INSET - SEE MAP 2 OF 2 (if applicable)

**Other Features**
- Interstate Highway
- U.S. Highway
- State Highway
- County Highway
- Road/Street
- Railroad
- Stream
- Lake/Pond
- Minor Civil Division (Cities, Townships and Unorganized areas)
- Public Land Survey Township / Range
- Public Land Survey Section

Data Sources:
1. Minnesota Department of Education, IT Division (2010)
2. Metropolitan Council (2010) Minnesota Department of Transportation (2004)
3. Minnesota Geographic Information Office
4. U.S. Bureau of the Census, Minnesota Legislative GIS Office (modified to include annexations files with Municipal Board through May 2003)
5. Minnesota Department of Natural Resources

Special Note:
The school district boundary appearing on this map (it) will not necessarily represent the legal boundary of the district. It is a generalization of boundaries drawn on maps in the late 1990's by county officials and modified by the U.S. Bureau of the Census, most recently for Census 2000. Since 2003, district boundary's have been modified by the Dept. of Education based on consistent County Parcel information. Please contact your county auditor or assessor to obtain an accurate legal description of the boundary.

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School District Location in Minnesota

Legend
- School District
- County Boundary

1 : 5,850

For further assistance with this map, contact:
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