Austin Elementary, Middle and Intermediate Schools

Safe Routes to School Plan

Austin Public Schools | Austin, Minnesota | August 2014

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Table of Contents

Appendices

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Introduction

What is Safe Routes to School?

Safe Routes to School (SRTS) is a program with a simple goal: helping more children get to school by walking and bicycling. Envision active kids using safe streets, helped by engaged adults (from teachers to parents to police officers), surrounded by responsible drivers.

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

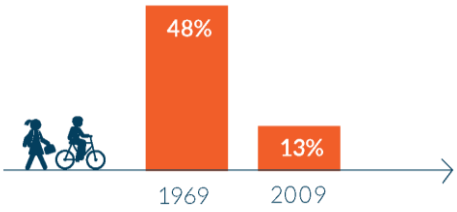
- Education: programs designed to teach children about traffic safety, bicycle and pedestrian skills, and traffic decision-making.
- Encouragement: programs that make it fun for kids to walk and bike. These programs may be challenges, incentive programs, ongoing events (e.g. "Walk and Bike Wednesdays") or classroom activities.
- Engineering: physical projects that are built to improve walking and bicycling conditions.
- Enforcement: law enforcement strategies to improve driver behavior near schools.
- Evaluation: strategies to help understand program effectiveness, identify improvements, and ensure program sustainability.

The Challenge

Although most students in the United States walked or biked to school pre-1980's, the number of students walking or bicycling to school has sharply declined. This decline is due to a number of factors, including urban growth patterns, school siting requirements, increased traffic, busy student schedules, and parental concerns about safety. The situation is self-perpetuating: as more parents drive their children to school, there is increased traffic at the school site, resulting in more parents becoming concerned about traffic and choosing to drive their children to school.

Why Safe Routes to School?

Within the span of one generation, the percentage of children walking or bicycling to school has dropped precipitously.

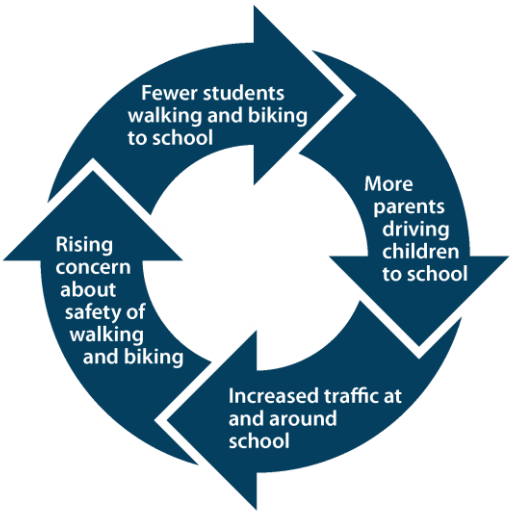


Kids are not getting enough physical activity.

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
- Get most of their recommended daily physical activity during the trip to school
- Are more likely to be a healthy body weight
- Demonstrate improved test scores and better school performance
- Are less likely to suffer from depression and anxiety[1]



The downward cycle of traffic and reduced walking and bicycling

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

Benefits of Walking and Bicycling to School

Safe Routes to Schools programs directly benefit schoolchildren, parents and teachers by creating a safer travel environment near schools and by reducing motor vehicle congestion at school drop-off and pick-up zones. Students that choose to bike or walk to school are rewarded with the health benefits of a more active lifestyle, with the responsibility and independence that comes from being in charge of the way they travel. These students learn at an early age that biking and walking can be safe, enjoyable and good for the environment.

Safe Routes to Schools programs offer ancillary benefits to neighborhoods by helping to slow traffic and by providing infrastructure improvements that facilitate bicycling and walking for everyone. Identifying and improving routes for children to safely walk and bicycle to school is also one of the most cost-effective means of reducing weekday morning traffic congestion and can help reduce auto-related pollution.

In addition to safety and traffic improvements, a SRTS program helps integrate physical activity into the everyday routine of school children. Increasingly, sedentary lifestyles have become the focus of statewide and national efforts to reduce health risks associated with being overweight. Children who bike or walk to school have an overall higher activity level than those who are driven to school. Active kids are healthy kids. Walking or bicycling to school is an easy way to make sure that children get daily physical activity.

SRTS benefits children:

- Increased physical fitness and cardiovascular health
- Increased ability to focus on school
- A sense of independence and confidence about their transportation and their neighborhood

SRTS benefits neighborhoods:

- Improved air quality as fewer children are driven to school
- Decreased crashes and congestion as fewer children are driven to school
- More community involvement as parents, teachers and neighbors get involved and put "eyes on the street"

SRTS benefits schools:

- Fewer discipline problems because children arrive "ready to learn"
- Fewer private cars arriving to drop off and pick up children
- Opportunities to integrate walking, bicycling and transportation topics into curriculum (e.g. "Walk & Bike Across America,")
- Increased efficiency and safety during drop off and pick up times

How to Use this Plan

This plan provides an overview of Safe Routes to School with specific recommendations for a 5 E's approach to improve the safety, health and wellness of students. The specific recommendations in this plan are intended to support infrastructure improvements and programs over the next 5 years.

Parents lead students on walking school bus from a "park and walk" site.

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.

This plan includes recommendations for infrastructure projects both long and short term as well as programmatic recommendations. At the heart of every successful Safe Routes to School comprehensive program is a coordinated effort by parent volunteers, school staff, law enforcement, community advocates and local agency staff, such as, public health. The following paragraphs highlight the unique contributions of key partners in Safe Routes to School.

Parents can use this report to understand the conditions at their children's' school and to become familiar with the ways a SRTS program can work to make walking and biking 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 critical to ongoing success by helping to fundraise for smaller projects and programs that are implementable on behalf of the district or local agency.

Parents waiting in queue for students at pick up play a significant role in student transportation safety.

School district and school administrative 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 auto commutes to school.

District officials are perhaps the most stable of the stakeholders for a Safe Routes to School program and have the responsibility for keeping 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. In Austin, the close proximity of multiple schools lends itself to a coordinated program.

School Administrators have an important role in implementing the recommendations contained within this SRTS Plan. The impetus for change and improvement must be supported by the leadership of the school. School administrators can help make policy and procedural changes to projects that are within school grounds and have the responsibility to distribute informational materials to parents within school publications.

City and County staff can use this report to identify citywide issues and opportunities related to walking and biking 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 will 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.

Enforcement is a key component of successful SRTS programs. Safety officers can become a key ally of students walking and cycling to school.

Police department staff can use this report to understand issues related to walking and biking 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 administration to provide officers and assistance to some of the proposed education and encouragement programs.

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.

Vision

"The Safe Routes to School program will support Vision 2020 by connecting students and their families with year-round walking and bicycling opportunities through education, encouragement, and use of a safe on-street bikeway, sidewalk, and trail network. The Safe Routes to School program will support the entire community by improving access to and knowledge of trails and opportunities for active transportation and recreation."

Planning in Austin

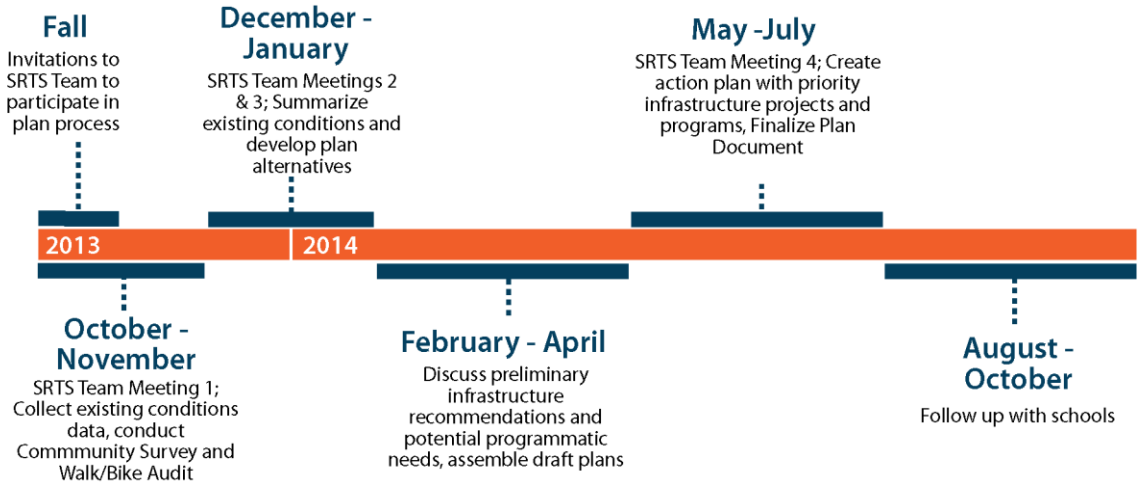
Vision 2020 Austin, a grassroots campaign launched in 2011, has helped to increase community support for bicycle transportation and recreation within Austin. The Vision 2020 Bike-Walk committee supports SRTS efforts, and is committed to implementing and promoting educational programs to encourage active transportation throughout the community, as well as supporting necessary infrastructure improvements to address safety concerns along student routes to school.

The city has been building trails for 15 years. They currently operate with a 5-year plan and funding designated for small trail segments constructed annually. Additionally, there is a partnership between Austin Public Schools and Mayo Clinic Health System to encourage physical activity and healthy choices for students.

A preliminary review of student walking and bicycling routes to school was conducted prior to applying for SRTS funding to support this Plan. The review noted that posted speed limits on all streets within the City of Austin are 30 mph or less. In addition, several intersections of concern were noted for students traveling to each of the six schools covered by the SRTS application.

Planning Process

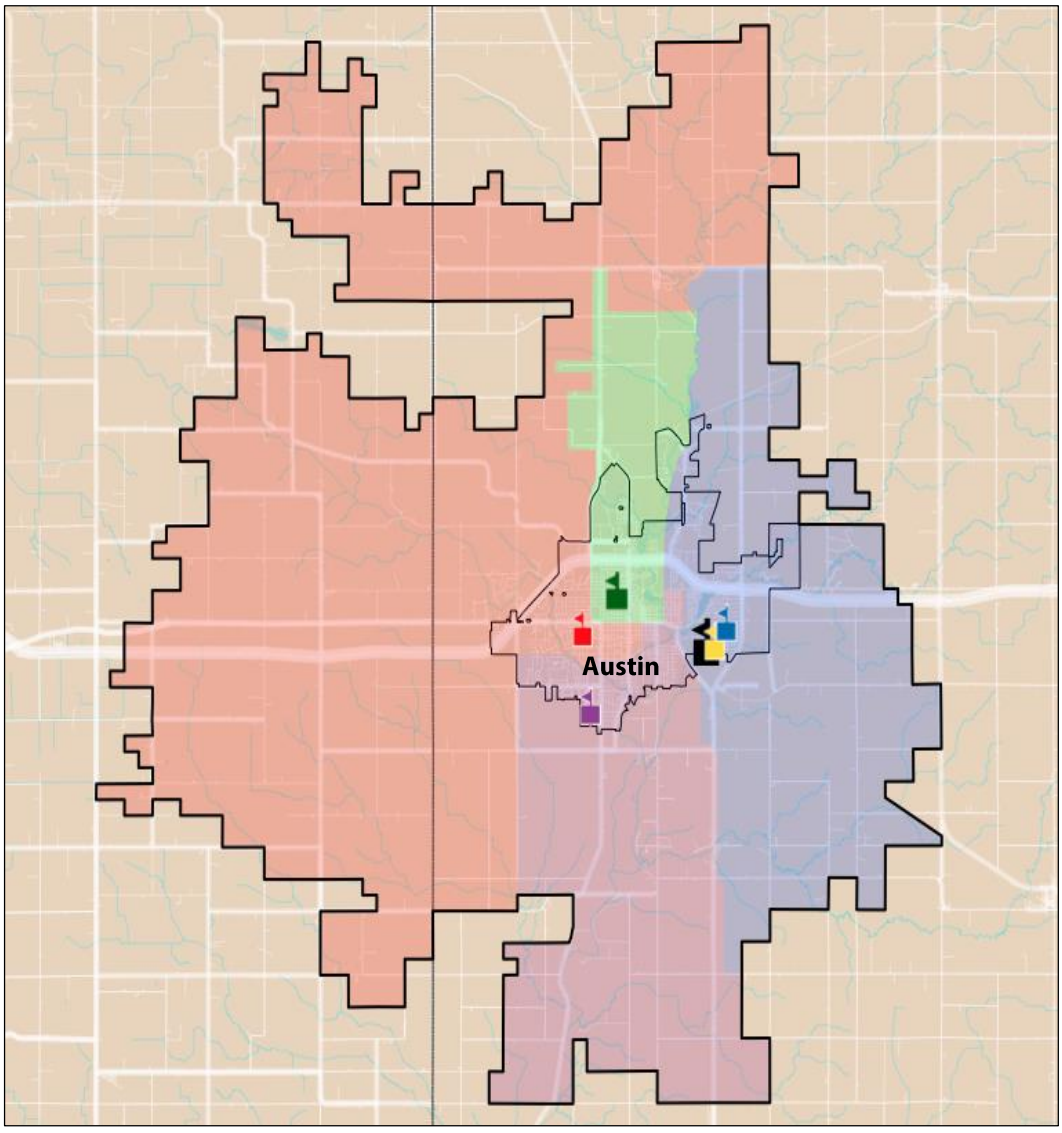
The year-long planning process for this SRTS Plan included building a SRTS team; gathering data and information about existing conditions; developing recommendation for the 5 E's; and developing a written document that sets forth a path for the SRTS program. The graphic below depicts key milestones in the planning process.



Schools

Austin Schools Currently Participating in SRTS Planning

The following map is a depiction of all of the schools in Austin participating in Safe Routes to School Planning work. Each participating school is depicted in a separate color, with the corresponding shaded area representing the enrollment area for that particular school.. The enrollment area for Ellis Middle School and IJ Holton Intermediate School is shown with black outline, which covers the collective enrollment area of all the other schools.



Legend

- City boundary
- Banfield Elementary School
- Ellis Middle School
- IJ Holton Intermediate School
- Neveln Elementary School
- Sumner Elementary School
- Southgate Elementary School

Programs Recommendations for All Schools

The Safe Routes to School movement has been a leader in acknowledging that infrastructure changes are a necessary but insufficient condition for shifting school travel behavior. While engineering improvements like sidewalks, crosswalks, and bikeways are important, equally important are education programs to make sure children and families have 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.

The programs listed below were identified as priority programs for the Austin schools during the SRTS planning process. These programs were selected to meet the interest and needs of the school community in the near term (1 to 5 years).

Please review the **SRTS Programs Guide** for detailed information on each program concept, including the primary intended outcomes, potential lead and partners, resources and sample programs, and a short description. An implementation timeline for each program is proposed later in this plan within the chapter specific to each school.

Type	Program	Banfield	Ellis/ IJ Holton	Neveln	Southgate	Sumner
Encouragement	Walk to School Day in October	■	■	■	■	■
Encouragement	Bike/Walk to School In May	■	■	■	■	■
Education	Safe Routes to Schools Recommended Routes Maps	■	■	■	■	■
Education	School Safety Campaign - Focus on Back to School and again in Spring	■	■	■	■	■
Education	Continue Rodeo – In Spring to Support Bike to School efforts in May	■	■	■	■	■
Education	Classroom Education – Bike Walk Fun	■	■	■	■	■
Education	School Communications - Promote Health and Environmental Benefits		■			
Education	After School Program - Bicycle Mechanic Training		■			
Education	School Assemblies			■		
Encouragement	Walking School Bus and/or Bike Train	■			■	■
Encouragement	Park and Walk	■	■		■	
Encouragement	Classroom Competitions		■		■	
Enforcement	Speed Enforcement - Speed Feedback Signs		■	■		■

Infrastructure Recommendations for All Schools

The table below summarizes infrastructure recommendations for each Austin school. Infrastructure recommendations were developed based on an existing conditions analysis and the needs expressed by stakeholders at each school.

See the Infrastructure Recommendations sections within individual school chapters for detailed descriptions of infrastructure recommendations at each school. Appendix A contains descriptions and visualizations of most recommendations.

	Fill Sidewalk Gaps	Improve Sidewalks	High-Visibility Crosswalks	Curb Extensions	Pedestrian Refuge Islands	ADA Compliant Curb Ramps	Traffic Calming and/or Speed Reduction	Signage or Pavement Marking	Rapid Flash Beacons	Drop-Off/Pick-up Loop improvement	Study New Path Connections	Bike Parking Improvements	Reconstruct Undercrossing
Banfield Elementary	x		x		x	x	x	x	x				
Ellis Middle and IJ Holton Intermediate		x	x	x			x		x	x	x	x	x
Southgate Elementary	x		x			x		x	x	x	x		
Sumner Elementary	x	x	x				x	x	x			x	
Neveln Elementary			x	x	x	x	x	x					

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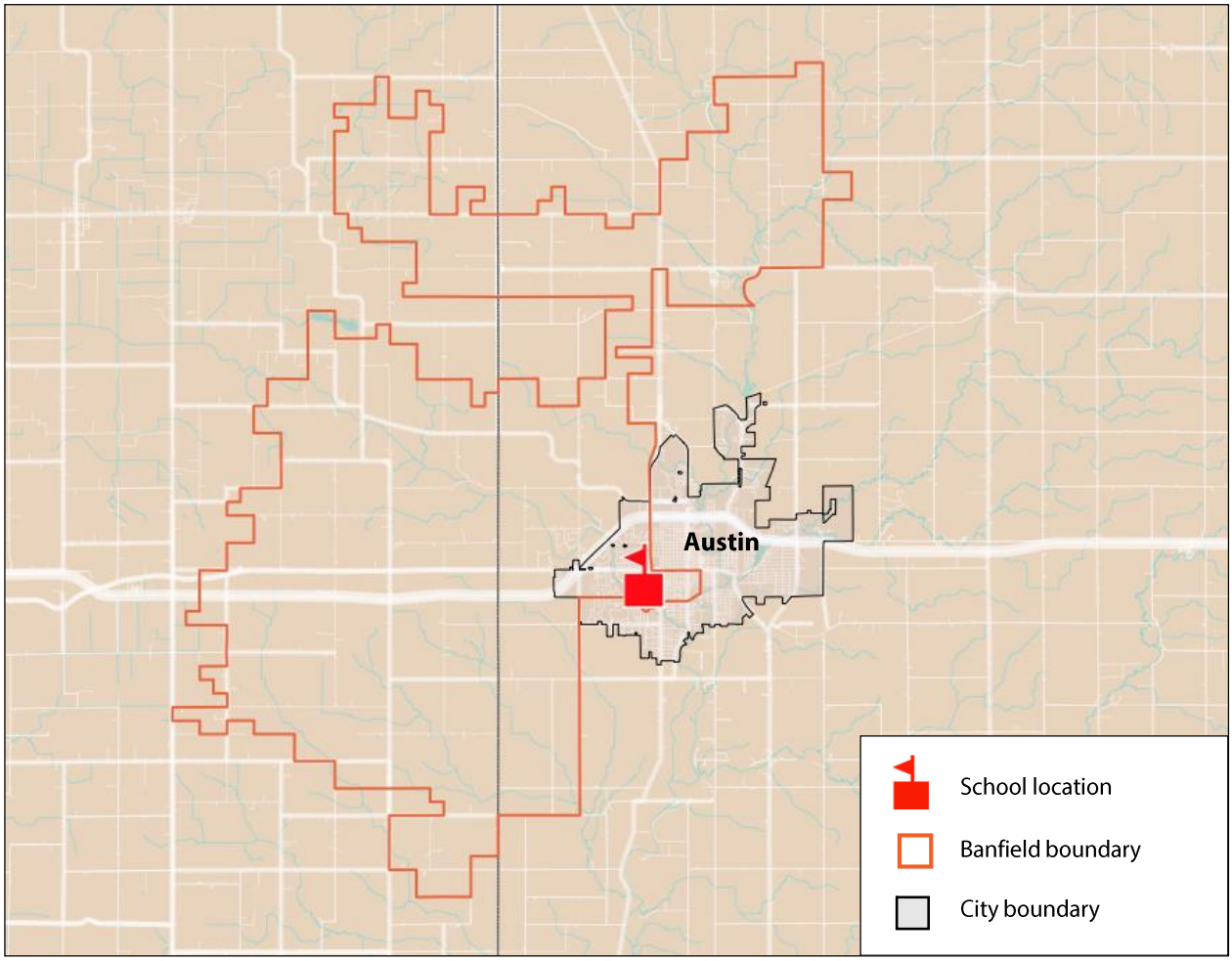
Banfield Elementary School

Existing Conditions

School Context

Banfield Elementary School is located in west-central Austin. The property is bound by 1st Avenue SW on the north, 15th Street SW on the east, 3rd Avenue SW on the south, and 17th Street SW on the west. School enrollment for the 2013-2014 school year was 483 students. The principal of Banfield Elementary is Jeff Roland. Arrival time for students is 8:10am, and dismissal time is 2:40pm.

School Enrollment Boundary



Surrounding Land Use

Banfield Elementary School is located in west-central Austin. Two blocks east of the school, 1st Avenue SW transitions into a major one-way thoroughfare, carrying eastbound traffic into downtown Austin. Westbound traffic is accommodated by West Oakland Avenue one block to the north. Together, they form a couplet through central Austin. A preschool/daycare is located across 17th Street SW from Banfield Elementary School.

W Oakland Avenue and its two frontage roads (Service Drive and 1st Avenue SW) are a barrier for

Most prominently, single-family housing surrounds the school. To the east, the street network is primarily gridded. West of the school, development becomes less dense, and streets more meandering.

Commercial activity begins one block east of the school along West Oakland Avenue, and continues several blocks east. Commercial development includes the Sterling Shopping Center and a Walgreens, as well as several gas stations and fast food restaurants.

High school athletic fields are located two blocks northeast of the school, on the north side of West Oakland Avenue. In addition to hosting high school athletic events, the sports fields are a common recreational destination for youth throughout the Austin area.

Comb Style bicycle parking racks are located on the south side of the school.

In addition, the Austin Fairgrounds are located two blocks south of the school, extending from 16th Street SW to 12th Street SW. The property accounts for roughly six residential blocks.

Student Walking and Biking

Sidewalks are present and in good condition surrounding the school, running along one or both sides of the street, and free of barriers. ADA compliant curb ramps are present at crossings adjacent to the school. Sidewalks end west of 19th Street SW.

Four comb style bicycle racks are available adjacent to a walkway leading to the school's southern entrance. According to student patrols and school staff, most students who walk approach the school from the south.

Four sets of student patrols and two adult crossing guards were observed around the school assisting with student crossings during a fall observation of school arrival.

Adult crossing guards were observed at:

- West Oakland Avenue and 16th Street NW; and

- 12th Street SW and 3rd Avenue SW.

Student safety patrols were observed at:

- 17th Street SW and 2nd Avenue;
- The Southwest corner of the school at 17th Street SW and 3rd Avenue SW;
- Southeast corner of the school at 15th Street SW and 3rd Avenue SW; and
- North of the school at 1st Avenue SW and 16th Street NW.

An adult crossing guard assists with pedestrian crossings at W Oakland Avenue and 16th Street NW; two student patrols guide pedestrians crossing the frontage road at 1st Avenue SW.

Prominent barriers for students walking and bicycling to school include West Oakland Avenue and 12th Street SW. West Oakland Avenue, located directly north of the school, carries one lane of traffic in each direction and is paralleled by two frontage roads: Service Drive to the north, and 1st Avenue SW to the south. The crossing of West Oakland Avenue at 16th Avenue NW is marked with high visibility striping and pedestrian crossing signage. This crossing was in need of re-painting at the time of the audit.

Students gather around the school's east entry after the school bell rings.

12th Street SW is also a barrier to student travel. It is one of the more heavily traveled streets in Austin, and includes intersections of concern at 3rd Avenue SW, and 4th Avenue SW. There are very few stops for drivers heading north-south on 12th Street SW, as most intersections are two-way stops for drivers heading east-west across 12th Street SW. An adult crossing guard was observed at the intersection of 12th Street SW and 3rd Avenue SW to assist with student crossings. This intersection is additionally marked with a painted crosswalk, pedestrian crossing signage, and flashing pedestrian warning beacon. At the time of the site visit, the high-visibility crosswalk was nearly completely faded, and in need of re-painting.

School Layout

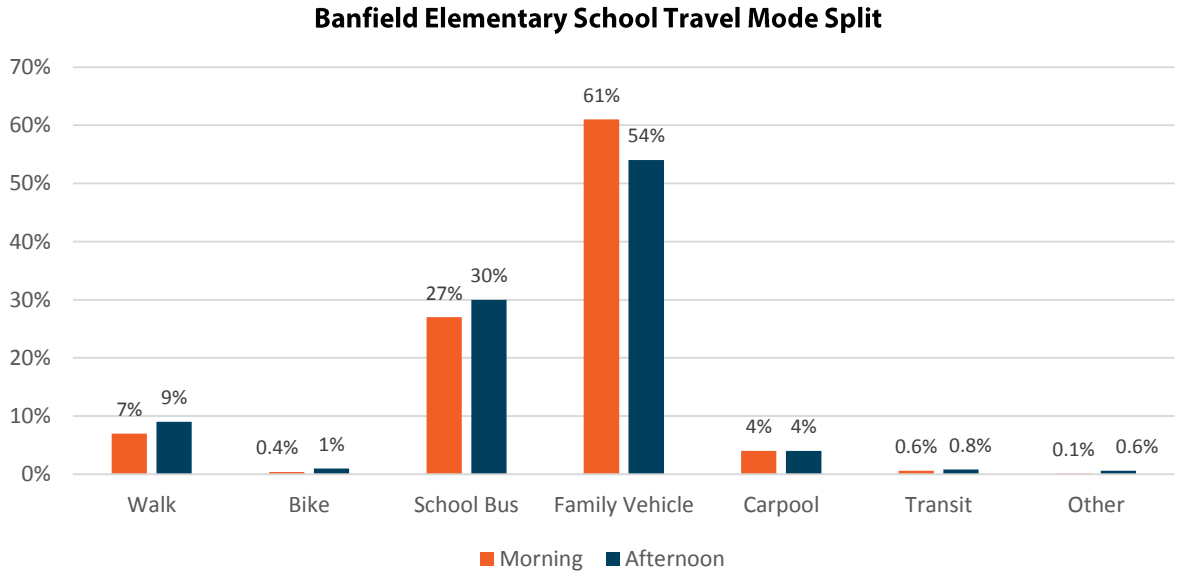
Banfield Elementary School's main entry is located along 17th Street SW. Secondary entryways include an entry on the south side of the school facing the outdoor play area, and two entries facing east that can be accessed from 15th Street SW and the staff parking lot. Bus pick-up and drop-off occurs primarily along the west side of the school, and wraps slightly around to the southern side of the school property. Parent drop-off is concentrated along 15th Street SW to the east, but occurs on the remaining sides of the school as well, to a lesser degree.

School zone signs with a posted speed limit of 20 mph are located south of Banfield along 3rd Avenue SW.

School Travel Patterns

Student Travel Survey Summary

In-classroom tallies of students' arrival and departure travel modes were conducted at Banfield Elementary School over three days (Tuesday, Wednesday, and Thursday) in April 2014. A total of 1,276 trips were tallied in the mornings, and 1,285 were tallied during the afternoons. As shown in the chart, about 8% of students typically walk to school, and less than 1% of students ride a bike to school on an average day. Over half of Banfield students are transported by family vehicle or carpool, and the about a quarter of students arrive via school bus.



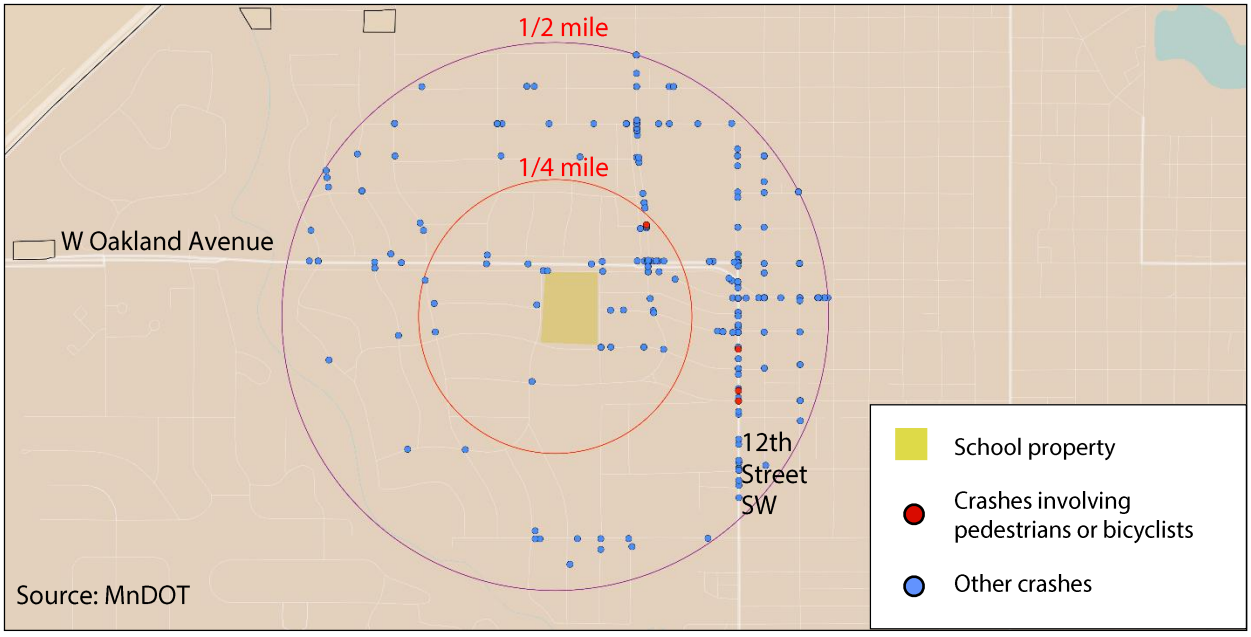
Traffic Conditions and Crash Analysis

West of 12th Street SW, West Oakland Avenue (County Road 105) is a major two-way arterial that carries about 6,600 cars per day. 12th Street SW (also County Road 105) runs north-south three blocks east of the school, with an average annual daily traffic (AADT) of 7,700. Motor-vehicle traffic at the intersection between Oakland Avenue and 14th Street SW, just a few blocks east of the school, is among the highest in Austin (AADT 10,100 motor vehicles).

An assessment of collisions surrounding Banfield Elementary School was completed using Minnesota Department of Transportation (MnDOT) crash data from 2003 - 2013. Primary objectives in analyzing this data are to identify crash patterns and particular locations or corridors that have been unsafe for pedestrian and bicyclists over a period of time.

Data reviewed from 2003 - 2013 reported a total of 345 collisions within 1/2 mile of Banfield Elementary School. Of these collisions, two involved motor vehicles colliding with pedestrians, and two with bicyclists. Three of these four collisions occurred along 12th Street NW to the east of the school. One of these incidents involved a 12-year-old riding a bicycle.

Crash Locations 2003 – 2013



Site Audit

The Banfield site audit took place on October 24, 2013 during arrival between 7:30 AM and 8:10 AM. Three members of the consultant team attended the audit. After observing the student arrival process, participants conducted a brief walking audit focused on pedestrian crossing conditions at West Oakland Avenue and 14th Street SW, an intersection that was identified as an area of concern by the project team. An additional driving audit was conducted to gain an understanding of the presence and quality of surrounding pedestrian and bicycle facilities.

A student patrol assists with a pedestrian crossing at the southeast corner of the school.

Banfield Elementary offers childcare for students from 6:00 AM until school begins, and from dismissal until 6:00 PM. The program, intended to accommodate parents with difficult work schedules, helps to disperse student arrival and departure traffic.

Parent drop-off is concentrated along 15th Street SW, to the east of the school.

Walking and Biking

People walking approached primarily from the southwest of the school, with a few approaching from the north and east. Student safety patrols and adult crossing guards facilitated crossings at several intersections directly adjacent to the school. Students waited to cross the street until instructed to do so. It was observed that drivers traveled along West Oakland Avenue quickly, and generally did not slow or stop when students were waiting to cross the street.

According to two on-duty student patrols, a patrol station was previously located at the intersection 2nd Avenue SW and 15th Street SW. However patrols at this location were discontinued after conditions were deemed too dangerous for unsupervised students.

Comb style bicycle parking was available near the southern entrance of the school. There was only one bicycle at the time of the audit.

Bus

School buses dropped off students along the southwest edges of the school, along 17th Street SW, and on 3rd Avenue SW.

Car

Parent drop-off occurred primarily on the east side of the school along 15th Street SW, and less significantly at the south side of the school along 3rd Avenue SW. Drop-off along 15th Street SW occurred on the western side of the street, with most cars heading south after turning off of W. Oakland Ave. Traffic was steady, but orderly. Students who arrived early were able to play outside under staff supervision until the school bell rang.

Infrastructure Recommendations

The initial field review and subsequent meetings yielded specific recommendations to address the key identified barriers to walking and bicycling at Banfield Elementary School. This plan does not represent a comprehensive list of every project that could improve conditions for walking and bicycling in the neighborhood – but rather the key conflict points and highest priority infrastructure improvements to improve walking and bicycling 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. Short term projects that should be addressed in the 2014-2015 school year are noted as such in Implementation Strategy section of this Plan. Some of the more significant recommendations for changes to streets and intersections may require policy changes, additional discussion and coordination, engineering and significant funding sources.

All engineering recommendations are described on the following page with locations shown on the Recommended Improvements Map. 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.

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 evaluated annually and repainted every other year or more often as needed.

While walking and bicycling diminish during the cold winter months, it is particularly important to prioritize snow removal and maintenance of school routes. 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 bicyclist 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.

Infrastructure Implementation

This strategy identifies programs that can be started in first year of plan implementation and summarizes the estimated timing of infrastructure improvements.

Future Actions

While some recommendations may not be implemented in year one, it is still important to plan and prepare for future infrastructure projects. These future actions are displayed in simplified timeline, illustrating a potential approach to phasing in certain activities.

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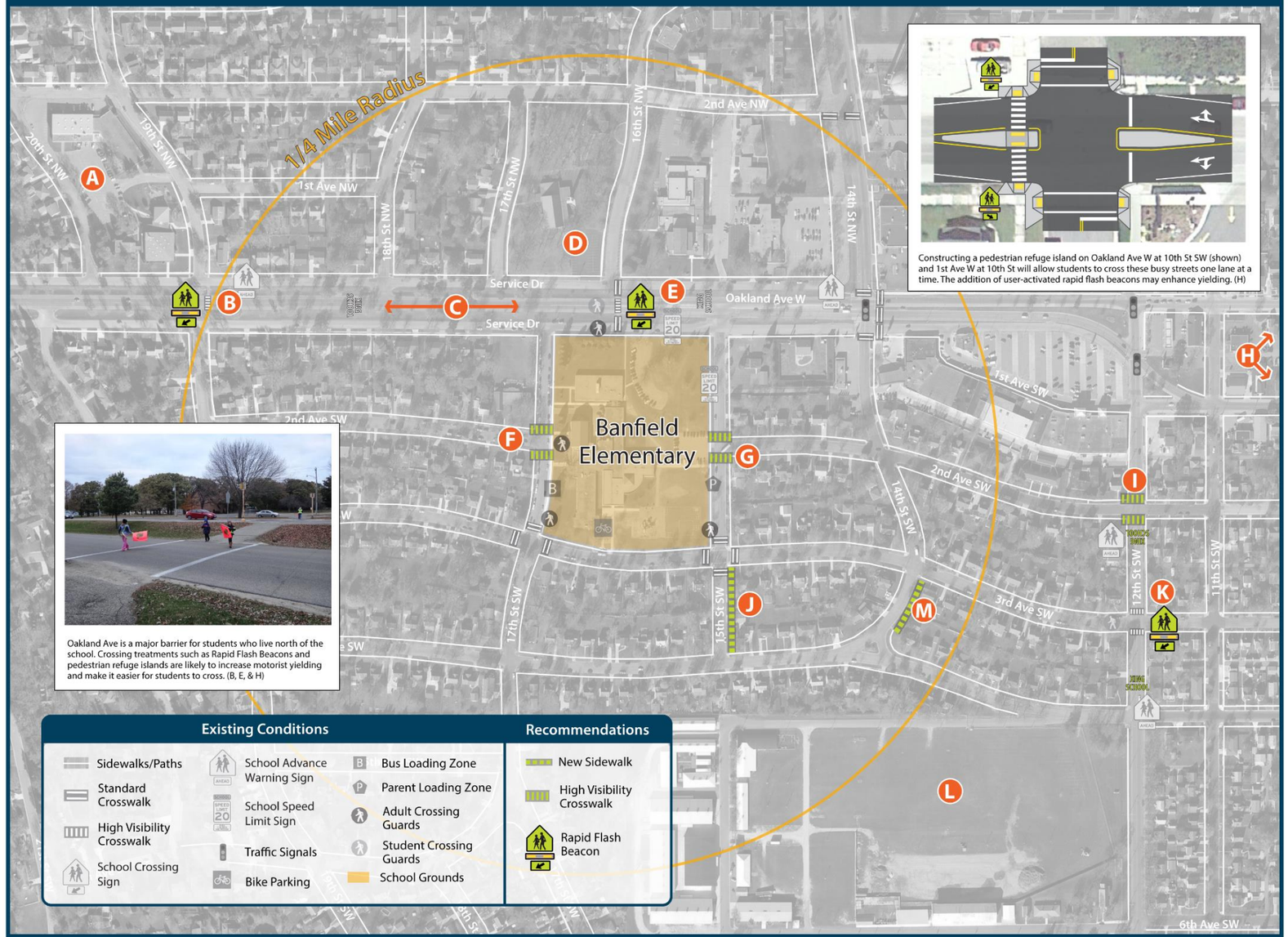
Banfield Elementary Infrastructure Recommendations

Project	Location	Problem/Issue	Solution/Recommendation	Lead Agency	Year 1	Year 2	Year 3	Year 4	Year 5
A	St. Edwards Church - 2000 W Oakland Ave	Congestion around school.	Potential location for special “park and walk” days. Parents can park and allow students to cross with adult crossing guard.	Austin Public Schools/Banfield Elementary	Planning	Implementation			
B	Oakland Ave W at 19th St NW	Difficult crossing.	Consider installing user-activated Rectangular Rapid Flash Beacons.	City of Austin	Planning	Implementation			
C	Oakland Ave W	High motor vehicle volumes and speeds create barrier for students who live on the north side of Oakland Ave W.	Explore strategies to reduce vehicle speeds on Oakland Ave W, including traffic calming features and reduced speed limits.	City of Austin	Planning	Planning	Planning	Planning	Implementation
D	First Baptist Church - 1700 W Oakland Ave	Congestion around school.	Potential “park and walk” site.	Austin Public Schools/Banfield Elementary	Planning	Implementation			
E	Oakland Ave W at 16th St NW	Difficult crossing directly adjacent to the school. Existing beacons are not user-activated. Drivers often fail to yield.	Replace existing flashing beacons with user-activated Rectangular Rapid Flash Beacons (RRFB). Upgrading this location is higher priority than item (B).	City of Austin	Planning	Implementation			
F	2nd Ave SW and 17th St SW	Existing crosswalks are striped with low-visibility markings.	Upgrade existing standard crosswalks to high-visibility crosswalks.	City of Austin	Planning	Implementation			
G	2nd Ave SW and 15th St SW	Existing crosswalks are striped with low-visibility markings.	Upgrade existing standard crosswalks to high-visibility crosswalks.	City of Austin	Planning	Implementation			
H	1st Ave SW and W Oakland Ave at 10th	Difficult crossing. Students crossing Oakland and 1st from northern neighborhoods.	Add pedestrian refuge, realign travel lanes, prohibit on street parking to make room for refuge. Consider adding RRFB.	City of Austin	Planning	Planning	Planning	Planning	Implementation
I	12th St SW at 2nd Ave SW	12th St SW lacks marked crossing opportunities for students. Many students are using the crossing at 2nd.	Stripe high-visibility crosswalk(s) across 12th St SW. North and south legs.	City of Austin	Planning	Implementation			
J	15th St SW from 3rd Ave SW to 4th Ave SW	Gap in the sidewalk network.	Fill sidewalk gap.	City of Austin	Planning	Planning	Planning	Planning	Implementation
K	12th St SW at 3rd Ave SW	Difficult crossing. Existing flashing beacons are not user-activated. Drivers often fail to yield.	Replace existing flashing beacons with user-activated Rectangular Rapid Flash Beacons or all-way stop. Install "School Xing" pavement markings to complement existing Advance School Warning Signs.	City of Austin	Planning	Implementation			
L	Soccer fields near 12th St SW and 4th Ave SW	Congestion at school site.	Potential “park and walk” site.	Austin Public Schools/Banfield Elementary	Planning	Implementation			
M	East side of 14th Street SW from 3rd Ave. to 4th Ave.	Sidewalk gaps.	Complete missing sidewalk link on east side of 14th Street SW from 3rd Ave. to 4th Ave.	City of Austin	Planning	Implementation			

Banfield Elementary School



Constructing a pedestrian refuge island on Oakland Ave W at 10th St SW (shown) and 1st Ave W at 10th St will allow students to cross these busy streets one lane at a time. The addition of user-activated rapid flash beacons may enhance yielding. (H)

Oakland Ave is a major barrier for students who live north of the school. Crossing treatments such as Rapid Flash Beacons and pedestrian refuge islands are likely to increase motorist yielding and make it easier for students to cross. (B, E, & H)

Recommended Improvements

- **A** Potential location for special "park and walk" days. Parents can park and allow students to cross with adult crossing guard.
- **B** Consider installing user-activated Rectangular Rapid Flash Beacons.
- **C** Explore strategies to reduce vehicle speeds on Oakland Ave W, including traffic calming features and reduced speed limits.
- **D** Potential "park and walk" site.
- **E** Replace existing flashing beacons with user-activated Rectangular Rapid Flash Beacons.
- **F** Upgrade existing transverse crosswalks to high-visibility crosswalks.
- **G** Upgrade existing transverse crosswalks to high-visibility crosswalks.
- **H** Add pedestrian refuge, realign travel lanes, do not allow on street parking to make room for refuge. Consider adding RRFB.
- **I** Stripe high-visibility crosswalks across 12th St SW.
- **J** Fill sidewalk gap.
- **K** Replace existing flashing beacons with user-activated Rectangular Rapid Flash Beacons or all-way stop. Install "SCHOOL XING" pavement markings to complement existing Advance School Warning signage.
- **L** Potential "park and walk" site.
- **M** Complete missing sidewalk link on east side of 14th Street SW from 3rd Ave. to 4th Ave.

Programs Recommendations

The Safe Routes to School movement has been a leader in acknowledging that infrastructure changes are a necessary but insufficient condition for shifting school travel behavior. While engineering improvements like sidewalks, crosswalks, and bikeways are important, equally important are education programs to make sure children and families have basic safety skills, encouragement programs to highlight walking and biking to school as fun and normal, enforcement against unsafe and illegal motorist behavior, and evaluation of the impact of investments and non-infrastructure efforts.

The programs listed to the right were identified as priority programs for your school during the SRTS planning process. These programs were selected to meet the interest and needs of the school community in the near term (1 to 5 years).

Recommended Programs for Banfield Elementary School

- Walk to School Day in October
- Bike/Walk to School In May
- Safe Routes to Schools Recommended Routes Maps
- School Safety Campaign – focus on back to school and again in spring
- Continue Rodeo – in spring to support bike to school with bike month
- Classroom education – Bike Walk Fun
- Walking School Bus and/or Bike Train
- Park and Walk

Please review the **SRTS Programs Guide** for detailed information on each program concept, including the primary intended outcomes, potential lead and partners, a recommended timeframe for implementation, resources and sample programs, and a short description.

Implementation

The programs identified for year one implementation will require the leading organization to take some immediate actions to make progress and follow this timeline.

Year one programs were selected based on existing capacity and interest identified during the planning process. Most education, encouragement and enforcement programs will be ongoing and once started can be integrated into school programs year after year.

Future Actions

While some recommendations may not be implemented in year one, it is still important to plan and prepare for future programmatic projects. These future actions are displayed in simplified timeline, illustrating a potential approach to phasing in certain activities.

Planning → Implementation

Banfield Elementary Programs Recommendations

Type	Program	Potential Lead	Key Partner	Year 1	Year 2	Year 3	Year 4	Year 5
Encouragement	**Walk to School Day in October**	City of Austin/Vision 2020	Austin Public Schools	→	→	→	→	→
Walk and Bike to School Day is an international event that attracts millions of participants in over 30 countries each October. The event encourages students and their families to try walking or bicycling to school.								
Encouragement	**Bike/Walk to School In May**	City of Austin/Vision 2020	Austin Public Schools	→	→	→	→	→
An additional walk and bike to school day in May continues to encourage students to walk or bicycle to school. Hosting additional events depends on organizational capacity, the level of support, and school interest.								
Education	**SRTS Recommended Routes Maps**	City of Austin/ Vision 2020	Austin Public Schools		→	→	→	→
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 bicycle to school.								
Education	**School Safety Campaign - focus on back to school and in spring**	Austin Public Schools	City of Austin Police Department			→	→	→
A safety campaign is an effective way to build awareness around students walking and biking to school and to encourage safe driving behavior among parents and people passing by.								
Education	**Continue Rodeo – in spring to support bike to school with bike month**	Lions	City of Austin Police Department	→	→	→	→	→
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.).								
Education	**Classroom Education – Bike Walk Fun**	District Physical Education Teachers	Austin Public Schools		→	→	→	→
Safe Routes to School classroom lessons address walking and/or bicycling and other related topics while also meeting state or district curriculum standards.								
Encouragement	**Walking School Bus and/or Bike Train**	Parents	School Administrator		→	→	→	→
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.								
Encouragement	**Park and Walk**	School Administrator	Austin Public Schools		→	→	→	→
This program is designed to encourage families to park several blocks from school and walk the rest of the way to school. Not all students are able to walk or bicycle the whole distance to school; but they can still participate in walk to school activities.								

Ellis Middle School & IJ Holton Intermediate School

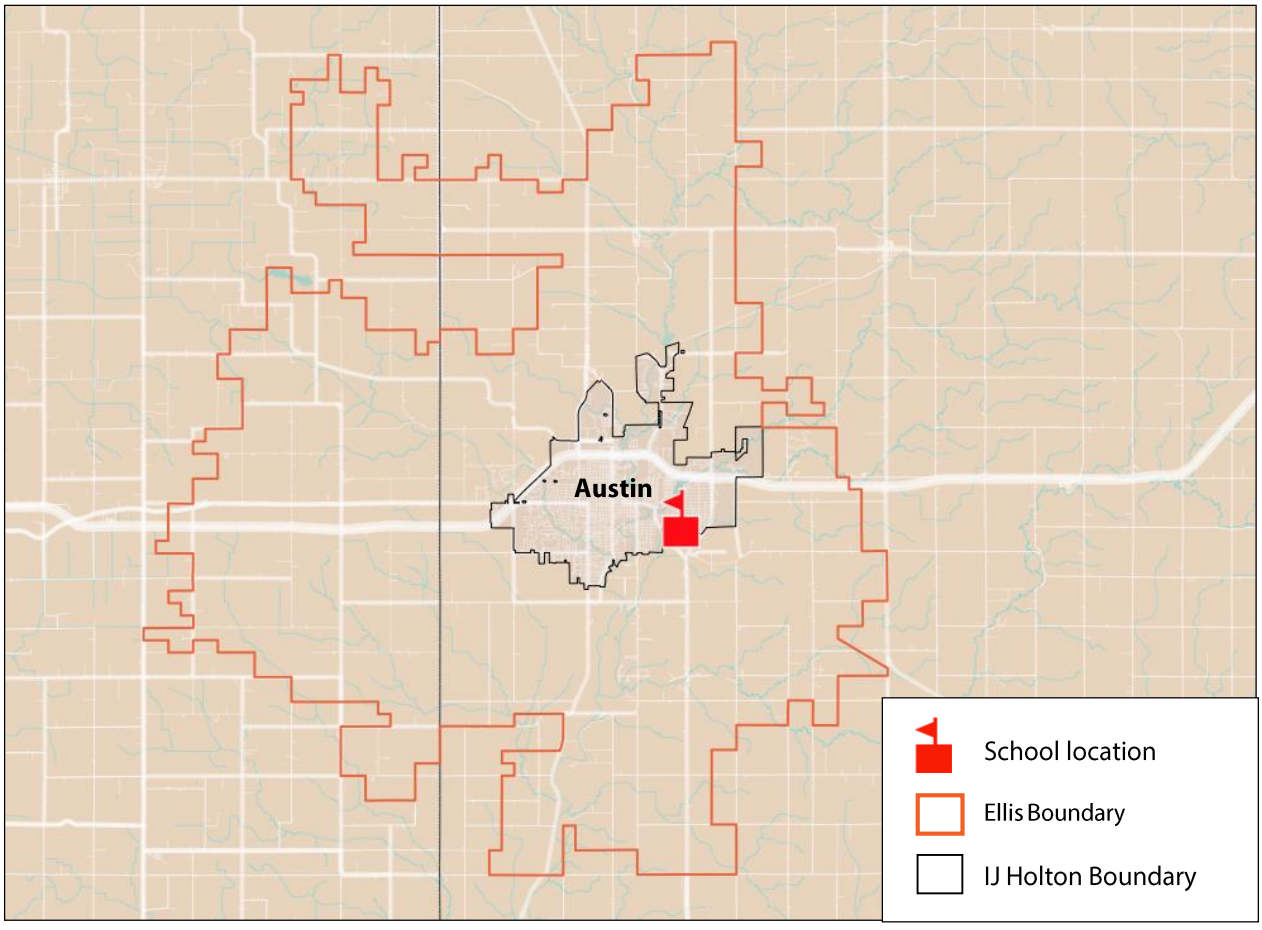
Existing Conditions

School Context

Ellis Middle School is located immediately west of IJ Holton Intermediate, and four blocks southwest of Neveln Elementary School. School enrollment for the 2013-2014 school year was 716 students. The principal of Ellis Middle School is Jason Senne. Arrival time for students is 8:00am, and dismissal time is 3:00pm.

IJ Holton Intermediate School is directly east of Ellis Middle School, and three blocks southwest of Neveln Elementary School. School enrollment for the 2013-2014 school year was 734 students. The principal of IJ Holton Intermediate School is Jean McDermott. Arrival time for students is 8:00am, and dismissal time is 3:00pm.

School Enrollment Boundaries



Surrounding Land Use

Ellis Middle School and IJ Holton Intermediate School are located on the eastern side of Austin, between residential and agricultural land uses. 4th Avenue SE runs along the north side of the schools, and is the only major street directly adjacent to school property. 4th Avenue SE is one of two (the other being Oakland Ave East) main arterial roads that connect Highway 218 to central Austin, and serves as the primary access road to and from the school.

North of 4th Avenue SE is a residential area. There are also residential uses to the east, accessible by a pedestrian walkway along the rear of the schools. Highway 218 is located approximately half a mile east of the schools, and divides residential uses from agricultural uses to the east. Agricultural uses also exist south of the schools. Actively used railroad tracks are located just under a half mile west of Ellis and IJ Holton . According to school faculty, train times routinely overlap with school arrival and dismissal, when many students cross the tracks. This was confirmed during the site visit.

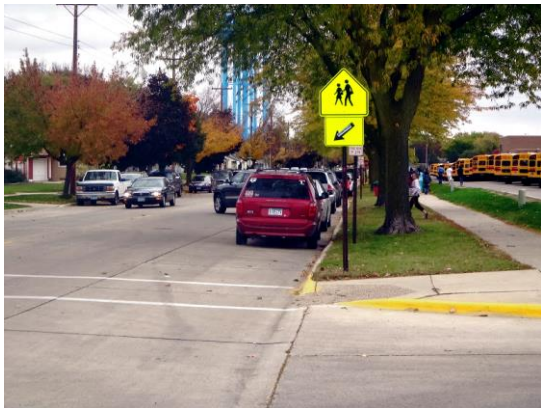
Student Walking and Biking

Sidewalks are present in most, but not all cases in the area surrounding Ellis and IJ Holton. There are some critical links missing from the sidewalk network. For example, the sidewalk on the south side of 4th Avenue SE ends while approaching the railroad tracks from the east. 1st Place SE also lacks sidewalks.

To reach bicycle racks, Ellis students must cross the teacher parking lot driveway, a loop that many parents also use to pick up their students.

Very few sidewalk ramps are ADA compliant. ADA compliant ramps are present along 4th Avenue NE adjacent to the newly constructed bus loop and IJ Holton Intermediate School. Aside from the new construction, sidewalks are sometimes very narrow, crumbling or uneven, misaligned at corners, or obstructed by utility posts or street signs. This makes it difficult for groups of children or individuals with physical impairments to easily navigate the pedestrian network.

School zone signs with posted speed limits of 20 mph are located west of Ellis and east of IJ Holton for drivers approaching along 4th Avenue SE. In addition, pedestrian crossing signs are located at school crossings at 4th Avenue SE and 16th Street SE. Crosswalks at this intersection are painted with standard striping, and are not very visible. Many students traveled east or west along the south side of 4th Avenue SE before attempting to cross at 15th Street SE to the west or 18th Street SE to the east. Neither intersection is marked for pedestrian crossings.



This pedestrian crossing at 4th Avenue SE and 16th Street SE is marked with pedestrian signage, and standard striping.

Bicycle parking is provided along 4th Avenue SE to the west of the school. Bicycle racks are comb styles, which allow only the front wheel to be locked. There is room for improvement both in rack style and placement to make bicycle parking more convenient and secure for students.

There are currently no marked on-road bicycle facilities near the school zone. A short multi-use trail extends from the south side of the school into a small residential neighborhood to the east of the school, but does not connect directly into the larger residential areas to the north.

4th Avenue SE becomes 5th Place SE as it crosses the railroad tracks to the west of the schools. Trains travel through the area regularly, including during school dismissal times. The sidewalk on the south side of 4th Avenue SE ends as it approaches the tracks from the east. An at-grade sidewalk is present on the north side of the crossing. There is very little signage alerting to the railroad crossing, and no signage relating specifically to pedestrians or bicyclists. There is a gate that raises and lowers at the railroad crossing, but it is located between the sidewalk and the driving lane, and does not block pedestrian traffic.

Ellis students head to the bus loop, one of the few places with ADA compliant curb ramps.

School Layout

Ellis Middle School

Ellis Middle is located directly adjacent and to the west of IJ Holton Intermediate School. It is accessible from 4th Avenue SE to the north of the school. A teacher and guest parking lot is located along the west side of the school. The lot is long and narrow, with room for one row of angle-in parking. Some parents use this lot for pick-up and drop-off in the mornings and afternoons, which requires driving the full length of the lot and making a U-Turn at the south end before picking up students on the way out.

Ellis students cross 4th Ave SE mid-block just west of the teacher parking lot driveway.

Parents also pick up along 4th Avenue SE, and from the neighboring church parking lot that is unused during the day. Bus pick-up and drop-off takes place in a bus circulation lot along the north side of the school. This lot is shared with students from IJ Holton Intermediate School. Students taking the bus or walking are released from the north entrance facing the bus loop. Students being picked up by parents are released from the school's main entrance on the west.

6th Avenue NE runs south of the school, but is blocked off to eliminate through traffic. A pedestrian path runs behind Ellis and neighboring IJ Holton Intermediate, leading east towards 18th Street SE. Four sets of bicycle racks are located near 4th Avenue SE along the west side teacher/visitor parking lot driveway.

IJ Holton Intermediate

IJ Holton Intermediate is located directly adjacent and to the east of Ellis Middle. IJ Holton's main entrance is on the east side of the building, facing the staff/visitor parking lot. Parents picking up and dropping off circulate through this parking lot. A curbside lane for pick-up and drop-off is located adjacent to the main entrance, and a bypass lane allows through traffic to access parking and move through the lot to the exit.

Parents are instructed to only turn right on 4th Avenue SE out of the exit to help with traffic flow, but this request is not always followed.

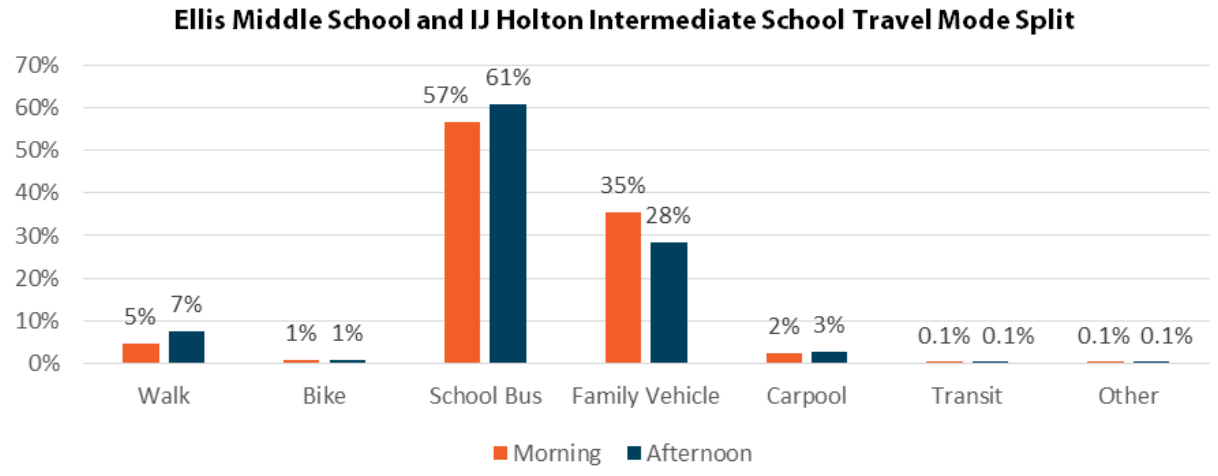
Two comb style bicycle parking racks are located on the southwest corner of the parking lot, south of IJ Holton's main entrance. Moving the rack north of the entrance would improve convenience for students approaching IJ Holton from 4th Avenue SE. The rack, while new, is a comb style rack, which only allows students to lock the front tire of their bicycles.

Twenty buses serve the schools from a central bus loop during the regular dismissal, and three more pick up students after extracurricular programs let out at 4:00 PM. To reach the bus loop, which is shared with Ellis Middle, students exit from a secondary entrance on the northwest side of the building. Students are connected to the bus loop, located directly north of Ellis and northwest of the school, by a sidewalk.

School Travel Patterns

Student Travel Survey Summary

In-classroom tallies of students' arrival and departure travel modes were conducted at Ellis Middle School and IJ Holton Intermediate School over three days (Tuesday, Wednesday, and Thursday) in April 2014. Travel mode results were similar between both schools, and are presented below in a combined format. A total of 2,979 trips were tallied in the mornings, and 2,836 were tallied during the afternoons. As shown in the chart, about 6% of students typically walk to school, and only about 1% of students ride a bicycle to school on an average day. More than half of Ellis and IJ Holton students are transported by school bus, and about a third of students arrive via family vehicle or carpool.



Traffic Conditions and Crash Analysis

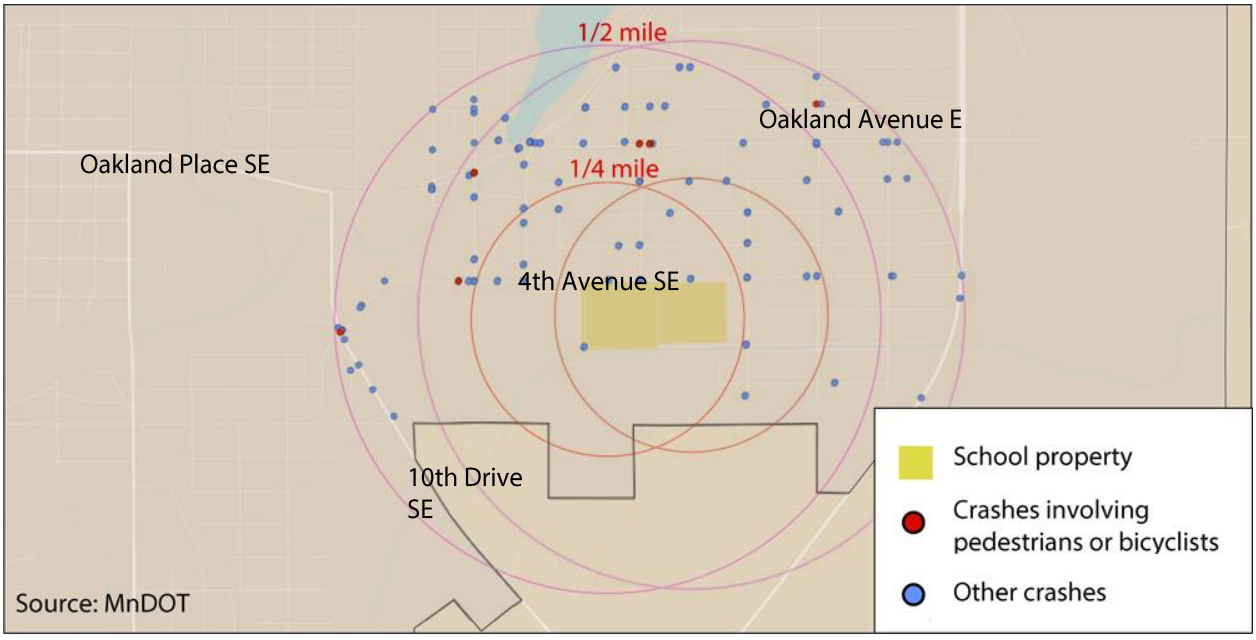
Arrival and dismissal traffic that results from parent drop-off and pick-up causes traffic safety concerns in the surrounding area. Almost all Ellis and IJ Holton students must travel along or across 4th Avenue SE during arrival or dismissal, either on a walk or bike ride home, or to meet parents waiting in parked cars. In 2012, 4th Avenue SE had an annual average daily traffic (AADT) count of 2,250 motor vehicles. Neighborhood through streets including 16th Street SE (AADT of 1,100 motor vehicles) and 19th Street SE (AADT of 1,300 motor vehicles) are also busier than others in Austin. Located west of the schools and the railroad tracks, 10th Drive SE (AADT of 2,200 motor vehicles south of 5th Place SE, and 3,600 north of 5th Place SE) was identified as a corridor of concern. The 5th Place SE crossing of the railroad tracks has an AADT of 2,450.

An assessment of collisions surrounding the campus of Ellis Middle School and IJ Holton Intermediate School was completed using Minnesota Department of Transportation (MnDOT) crash data from 2003 - 2013. Primary objectives in analyzing this data are to identify crash patterns and particular locations or corridors that have been unsafe for pedestrian and bicyclists over a period of time.

Data from 2003 - 2013 reported over 150 collisions within 1/2 mile of Ellis and IJ Holton. Of these collisions, two involved motor vehicles colliding with a pedestrian, and four with bicyclists.

Two collisions occurred near the intersection of Oakland Avenue E and 16th Street SE, two at the intersection of 12th Street SE and Oakland Place SE, one on 4th Avenue SE west of the school, and one at the intersection of 5th Place SE and 10th Drive SE/County 45. The pedestrians involved in the incidents were ages four and six, and the bicyclists included those ages 11 and 12.

Crash Locations 2003 – 2013



Site Audit

The sidewalk on the south side of 4th Ave SE ends as it approaches the railroad crossing.

The audit for both schools took place in the afternoon on October 23, 2013, directly after the Austin SRTS kick-off meeting. Four individuals participated in the Ellis audit, including two members of the consultant team, a MnDOT representative, and a parent representative of the Austin SRTS Team. Five individuals participated in the IJ Holton audit, including two members of the consultant team, two MnDOT representatives, and a parent representative of the Austin SRTS Team. A walking audit focused along 4th Avenue SE followed the dismissal observation. On October 24, an additional visit was made to observe student travel across the active railroad tracks west of the schools.

Walking and Biking

Ellis

There is currently no student safety patrol program or adult crossing guard to assist with pedestrian crossings. Some students approached the railroad tracks on the north side of the street, where a sidewalk is present. Students traveling on the south side (where the sidewalk stops short) had to choose between crossing the street mid-block at an unmarked location or continuing westward in the street. During observations of the railroad crossing, there was construction in the north lane of 4th Avenue SE after it crossed the tracks. As a result, the only sidewalk was roped off and covered with dirt. Students then crossed back to the south side of the street (where there is no sidewalk) as they continued towards 10th Drive SE.

The bicycle racks at Ellis provided to students only allow users to lock the front wheels of their bicycles.

Ellis staff are concerned about students running between busses to reach the sidewalk.

Most students walked in groups of 4-5 students, whereas groups of bicyclists were uncommon. Three students were observed walking along the pedestrian path at the rear of the school.

Toaster and comb style bike racks are located to the west of the school, adjacent to 4th Avenue SE and across the driveway from the school. To access the bike racks, students must cross the teacher parking lot driveway. During dismissal, parents use the parking lot as a pick-up loop, so students mix with traffic on the way to retrieve their bikes.

IJ Holton Intermediate School

An estimated 40 students walked home, many of them in large groups. A group of three girls, as well as two students walking on their own, used the pedestrian path along the south of the parking lot to walk towards homes to the southeast of the school. Most students headed towards 4th Avenue SE.

At the time of the audit, there were eight bicycles and one scooter parked in the bicycle rack, about half of which were locked. Students who picked up their bikes noted that when the weather was nicer, the rack was often full. Students with bicycles walked their bikes out of the parking lot, and then rode them on the sidewalk along 4th Avenue SE. Bicyclists heading west towards the train tracks were observed riding in the roadway (both with and against the flow of traffic) once they were outside of the parent pick-up area. Students were observed crossing the train tracks after dismissal on October 24. Approximately 20-25 students walked or biked across the tracks, but it could not be determined whether these students were coming from IJ Holton Intermediate or Ellis Middle School.

Bus

IJ Holton and Ellis share school buses. Bus drivers expressed that they are pleased with existing conditions, and that things have improved since the bus bay was refurbished.

Students occasionally walked between buses. This is a concern for school staff because students cannot easily be seen. In the winter, piles of snow also make it difficult to see students walking.

Car

Ellis Middle School

During drop off and pick up, parents use the neighboring church, 4th Avenue SE, and the west side driveway (after pulling to the end and turning around). In order to reach parents waiting on the north side of 4th Avenue SE or in the church parking lot, students often run across the staff parking lot (also used for pickup), or across 4th at the parking lot driveway where there is no marked crossing.

This intersection one block west of Ellis lacks curb ramps on the south side of 4th Avenue SE, painted crosswalks, and pedestrian signage.

IJ Holton Intermediate School

Parents using the pick-up loop enter the school parking lot from the west driveway and exit from the east driveway, where a sign instructs them to make a one way turn right on 4th Avenue SE. Parents began arriving in the waiting zone approximately 10 minutes before dismissal. Occasionally parents parked their cars in the waiting zone, and left them empty to enter the school building. School staff expressed concerns of parents who mistook pedestrian crossings in the parking lot as travel lanes or parking spaces, and used them as such, blocking pedestrian movement.

Parents often blocked the sidewalk on 4th Avenue SE by pulling into the driveway to wait for students. Additional concerns involved students running across 4th Avenue SE mid-block to meet parents waiting on the opposite side.

Infrastructure Recommendations

The initial field review and subsequent meetings yielded specific recommendations to address the key identified barriers to walking and biking at Ellis and IJ Holton. This plan does not represent a comprehensive list of every project that could improve conditions for walking and bicycling in the neighborhood – but rather the key conflict points and highest priority infrastructure improvements to improve walking and bicycling 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. Short term projects that should be addressed in the 2014-2015 school year are noted as such in Implementation Strategy section of this Plan. Some of the more significant recommendations for changes to streets and intersections may require policy changes, additional discussion and coordination, engineering and significant funding sources.

All engineering recommendations are described on the following page with locations shown on the Recommended Improvements Map. 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.

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 evaluated annually and repainted every other year or more often as needed.

While walking and bicycling diminish during the cold winter months, it is particularly important to prioritize snow removal and maintenance of school routes. 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 bicyclist 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.

Infrastructure Implementation

This strategy identifies programs that can be started in first year of plan implementation and summarizes the estimated timing of infrastructure improvements.

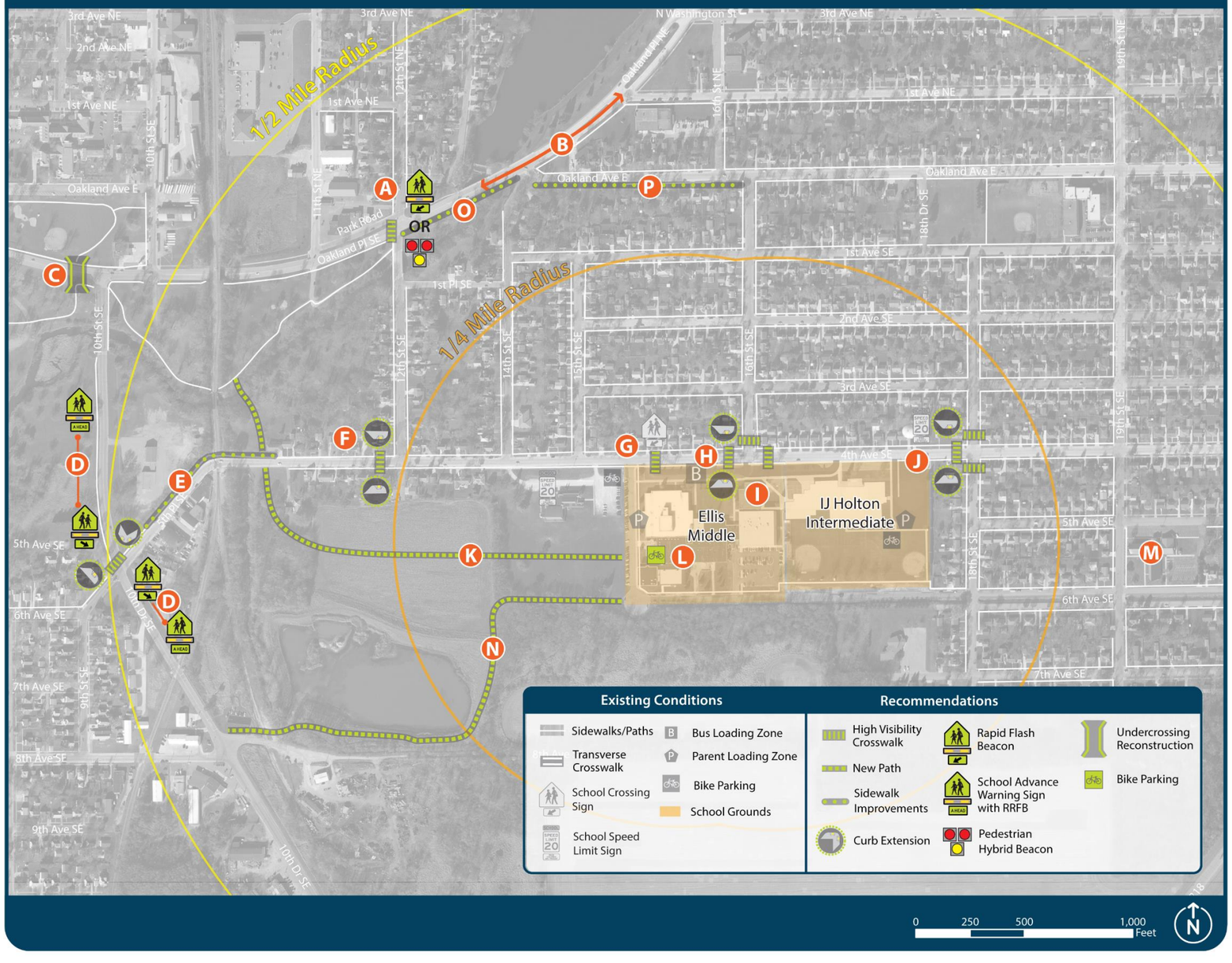
Future Actions

While some recommendations may not be implemented in year one, it is still important to plan and prepare for future infrastructure projects. These future actions are displayed in simplified timeline, illustrating a potential approach to phasing in certain activities.

Ellis Middle School and IJ Holton Intermediate School Infrastructure Recommendations

#	Location	Problem/Issue	Solution/Recommendation	Lead Agency	Year 1	Year 2	Year 3	Year 4	Year 5
A	Oakland Pl SE and 12th St SE	Challenging crossing due to high motor vehicle volumes and speeds along Oakland Pl SE.	Install Pedestrian Hybrid Beacon or Rectangular Rapid Flash Beacon. Restripe existing transverse crosswalk as a high visibility crosswalk.	City of Austin					
B	Oakland Pl SE	High motor vehicle volumes and speeds create barrier for students who live on the north side of Oakland Pl SE.	Explore strategies to reduce vehicle speeds on Oakland Pl SE, including traffic calming features.	City of Austin					
C	Oakland Pl SE undercrossing, just west of 10th St SE	Narrow, uncomfortable tunnel connected to steep ramps creates safety and comfort issues.	Reconstruct undercrossing using a wide, inviting design with adequate lighting.	City of Austin					
D	5th Pl SE and 10th St SE	Skewed intersection alignment creates long pedestrian crossings. Grade and curve create sight line issues. Intersection lacks marked crosswalks.	Construct curb extensions to reduce crossing distance at skewed intersection. Install Rectangular Rapid Flash Beacon with Advance Warning Rapid Flash Beacon for north and south approaches. Stripe high visibility crosswalk at northwest leg of intersection.	City of Austin					
E	5th Pl SE from 10th St SE to beginning of developed residential land use on 4th Ave SE	Existing sidewalk is narrow and is not maintained during winter months.	Widen sidewalk and maintain during winter months.	City of Austin					
F	4th Ave SE at 12th St SE	12th St SE is the most direct route to neighborhoods north of Oakland Pl SE. Once pedestrian beacon is added, this intersection will become the logical place for students to cross 5th Pl SE.	Construct curb extensions and stripe high visibility crosswalk at west leg of intersection.	City of Austin					
G	4th Ave SE, midblock between 15thSt SE and 16th St SE	Existing standard crosswalk markings are low-visibility.	Upgrade existing standard crosswalks to high-visibility crosswalks.	City of Austin					
H	4th Ave SE at 16th St SE	Difficult crossing; Students crossing through buses to get out to sidewalk from many areas.	Construct curb extensions and stripe all crosswalks with high-visibility markings.	City of Austin/Austin Public Schools					
I	Bus loading adjacent to 4th Ave	Students crossing through busses to get out to sidewalk from many areas. Not visible coming out between buses.	Consider creating wide marked pathway through the bus loading area from the school exit to the sidewalk at 4th Ave SE.	City of Austin/Austin Public Schools					
J	4th Ave SE at 18th St SE	Key intersection adjacent to school lacks marked crosswalks. Difficult crossing.	Stripe high-visibility crosswalks on the north, south, and west legs of this intersection. Construct curb extensions across 4th Ave SE.	City of Austin					
K	Open space between school and existing path NW of 4th Ave SE and 12th St SE	Opportunity for new path connection.	Conduct feasibility study to explore new path connection.	City of Austin					
L	Existing bike parking	Current location is inconvenient and creates theft/security concerns.	Relocate bicycle parking to front of school.	Austin Public Schools					
M	Grace Lutheran Church (5th Ave SE and 19th St SE)	Congestion at school site during drop-off and pick-up.	Potential remote drop-off site.	School Administrators					
N	Open space between school 10th Dr SE at 8th Ave SE	Opportunity for new path connection.	Conduct feasibility study to explore new path connection.	City of Austin					
O	Oakland Place SE from 12th St. to 14th St.	Lack of sidewalk connection on south side.	Complete missing sidewalk link on the south side of Oakland Place SE from 12th St. to 14th St.	City of Austin					
P	Oakland Avenue East from 14th St. to 16th St.	Sidewalk gaps on south side.	Complete missing sidewalk link on south side of Oakland Avenue East from 14th St. to 16th St.	City of Austin					

Ellis Middle School and IJ Holton Intermediate School



Recommended Improvements

- **A** Install Pedestrian Hybrid Beacon or Rectangular Rapid Flash Beacon. Restripe existing transverse crosswalk as a high visibility crosswalk.
- **B** Explore strategies to reduce vehicle speeds on Oakland Pl SE, including traffic calming features.
- **C** Reconstruct undercrossing using a wide, inviting design with adequate lighting.
- **D** Construct curb extensions to reduce crossing distance at skewed intersection. Install Rectangular Rapid Flash Beacon with Advance Warning Rapid Flash Beacon on north and south approaches. Stripe high visibility crosswalk at northwest leg of intersection.
- **E** Widen sidewalk and maintain during winter months.
- **F** Construct curb extensions and stripe high visibility crosswalk at west leg of intersection.
- **G** Upgrade existing standard crosswalks to high-visibility crosswalks.
- **H** Construct curb extensions and stripe all crosswalks with high-visibility markings.
- **I** Consider creating wide marked pathway through the bus loading area from the school exit to the sidewalk at 4th Ave SE.
- **J** Stripe high-visibility crosswalks on the north, south, and west legs of this intersection. Construct curb extensions across 4th Ave SE.
- **K** Conduct feasibility study to explore new path connection.
- **L** Relocate bicycle parking to front of school. Potential remote drop-off site.
- **M** Potential remote drop-off site.
- **N** Conduct feasibility study to explore new path connection.
- **O** Complete missing sidewalk link on the south side of Oakland Place SE from 12th St. to 14th St.
- **P** Complete missing sidewalk link on south side of Oakland Avenue East from 14th St. to 16th St.

Programs Recommendations

The Safe Routes to School movement has been a leader in acknowledging that infrastructure changes are a necessary but insufficient condition for shifting school travel behavior. While engineering improvements like sidewalks, crosswalks, and bikeways are important, equally important are education programs to make sure children and families have basic safety skills, encouragement programs to highlight walking and biking to school as fun and normal, enforcement against unsafe and illegal motorist behavior, and evaluation of the impact of investments and non-infrastructure efforts.

The following programs were identified as priority programs for Ellis and IJ Holton Schools during the SRTS planning process. These programs were selected to meet the interest and needs of the school community in the near term (1 to 5 years).

Recommended Programs for Ellis Middle School and IJ Holton Intermediate School

- Walk to School Day in October
- Bike/Walk to School In May
- Safe Routes to Schools Recommended Routes Maps
- School Safety Campaign - focus on back to school and again in spring
- Continue Rodeo – in spring to support bike to school with bike month
- Classroom education – Bike Walk Fun
- School Assemblies
- Speed Enforcement - Speed Feedback Signs

Please review the **SRTS Programs Guide** for detailed information on each program concept, including the primary intended outcomes, potential lead and partners, a recommended timeframe for implementation, resources and sample programs, and a short description.

Implementation

The programs identified for year one implementation will require the leading organization to take some immediate actions to make progress and follow this timeline.

Year one programs were selected based on existing capacity and interest identified during the planning process. Most education, encouragement and enforcement programs will be ongoing and once started can be integrated into school programs year after year.

Future Actions

While some recommendations may not be implemented in year one, it is still important to plan and prepare for future programmatic projects. These future actions are displayed in simplified timeline, illustrating a potential approach to phasing in certain activities.

Planning → Implementation

Ellis Middle School and IJ Holton Intermediate School Programs Recommendations

Type	Program	Potential Lead	Key Partner	Year 1	Year 2	Year 3	Year 4	Year 5
Encouragement	**Walk to School Day in October**	City of Austin/Vision 2020	Austin Public Schools	→	→	→	→	→
Walk and Bike to School Day is an international event that attracts millions of participants in over 30 countries each October. The event encourages students and their families to try walking or bicycling to school.								
Encouragement	**Bike/Walk to School In May**	City of Austin/Vision 2020	Austin Public Schools	→	→	→	→	→
An additional walk and bike to school day in May continues to encourage students to walk or bicycle to school. Hosting additional events depends on organizational capacity, the level of support, and school interest.								
Education	**Safe Routes to Schools Recommended Routes Maps**	City of Austin/Vision 2020	Austin Public Schools		→	→	→	→
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 bicycle to school.								
Education	**School Safety Campaign - focus on back to school and again in spring**	Austin Public Schools	City of Austin Police Department			→	→	→
A safety campaign is an effective way to build awareness around students walking and biking to school and to encourage safe driving behavior among parents and people passing by.								
Education	**Continue Rodeo – in spring to support bike to school with bike month**	Lions	City of Austin Police Department	→	→	→	→	→
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.).								

Education	**Classroom Education – Bike Walk Fun**	District Physical Education Teachers	Austin Public Schools	
Safe Routes to School classroom lessons address walking and/or bicycling and other related topics while also meeting state or district curriculum standards.				
Education	**School Assemblies**	School Administrator	SHIP - Public Health	
Assemblies grab students' attention through fun, interactive activities, such as games, skits, or demonstrations. Safe Routes to School assemblies often cover pedestrian and/or bicycle safety but can also address bicycling skills, the environment, health, and other topics.				
Enforcement	**Speed Enforcement - Speed Feedback Signs**	City of Austin Police Department	Austin Public Schools	
Some types of enforcement do not require the presence of a law enforcement officer and are automated. Photo detection, radar trailers, or speed feedback signs are examples of automated enforcement.				

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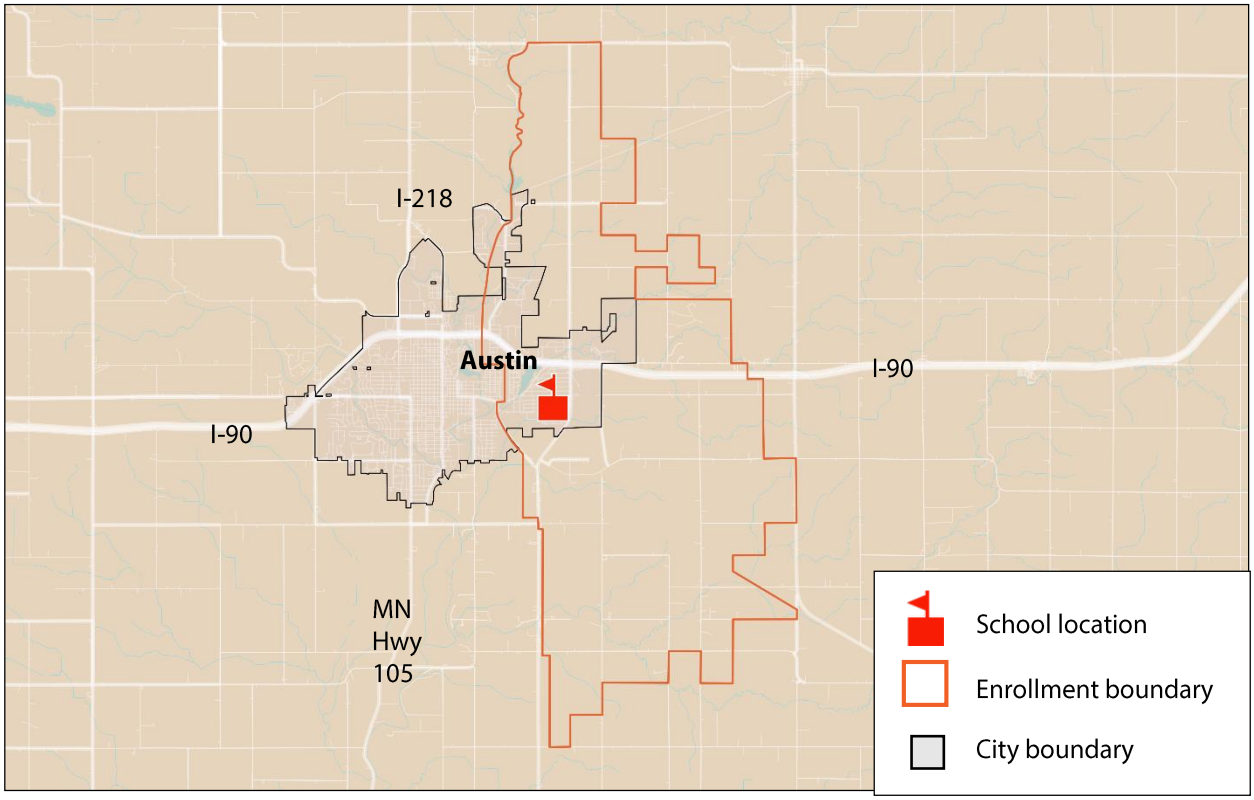
Neveln Elementary School

Existing Conditions

School Context

Neveln Elementary School is located in east Austin, and is bound by Oakland Avenue East on the north and 19th Street NE on the east. School enrollment for the 2013-2014 school year was 347 students. The principal of Neveln Elementary is Dewey Schara. Arrival time for students is 8:10am, and dismissal time is 2:40pm.

School Enrollment Boundary



Surrounding Land Use

Neveln Elementary School is located in east Austin. Ellis Middle School and IJ Holton Intermediate School are located three blocks southwest of Neveln. The school is immediately surrounded by residential uses. Neveln Park is located directly to the west of the school, and is used as an outdoor play space by students during the day.

Students released from the rear exit walk past the bicycle racks to meet buses and parents, or to start their walk home.

Oakland Place NE runs southwest to northeast two blocks east of Neveln. It carries two lanes of traffic in each direction, and connects downtown Austin to Interstate 90 at the northeast edge of Austin. East Side Lake and East Side Lake Park are located directly west of Oakland Place NE. State Highway 218 is located two blocks to the east of Neveln, separating residential development on the west from a municipal airport and agricultural uses on the east.

Oakland Avenue East, directly north of Neveln, connects Oakland Place NE to Highway 218 to the east. Agricultural uses are also present starting five blocks south of Neveln. I-90 runs east to west seven blocks north of the school. North of I-90 residential development is sparse; agriculture is the predominant land use.

Student Walking and Biking

Residential blocks surrounding Neveln are organized in a grid, with sidewalks present in most cases. Sidewalks are not present along 18th Drive SE, which runs along the west side of the school property. Though generally well connected, sidewalks are in need of repair in some places, in particular on the school property. Concrete is crumbling and uneven approaching the rear entrance on the west side of the building. ADA compliant curb ramps are present on sidewalks directly adjacent to the school property. Student safety patrols were observed at the corners of Oakland Avenue E and 19th Street SE, and at 1st Avenue SE and 19th Street SE during an observation of school dismissal in the fall.

Standard crosswalk striping and pedestrian signage marks a crossing at Oakland Avenue E and 18th Drive SE. Despite the markings, vehicles travel quickly through this intersection.

On-road bicycle facilities are not present in the surrounding area, although Oakland Avenue East is wide enough to easily accommodate bike lanes.

School Layout

Neveln Elementary School's main entrance faces 19th Street NE. There is a small staff parking lot on the south end of the building, but not a parent pick-up/drop-off loop, or bus loop. Buses drop off and pick up curbside along Oakland Avenue East to the north of the school. Parent traffic is concentrated along the south side of the school on 1st Avenue SE. Parents were observed picking up along 19th Street NE and on both sides of Oakland Avenue East as well.

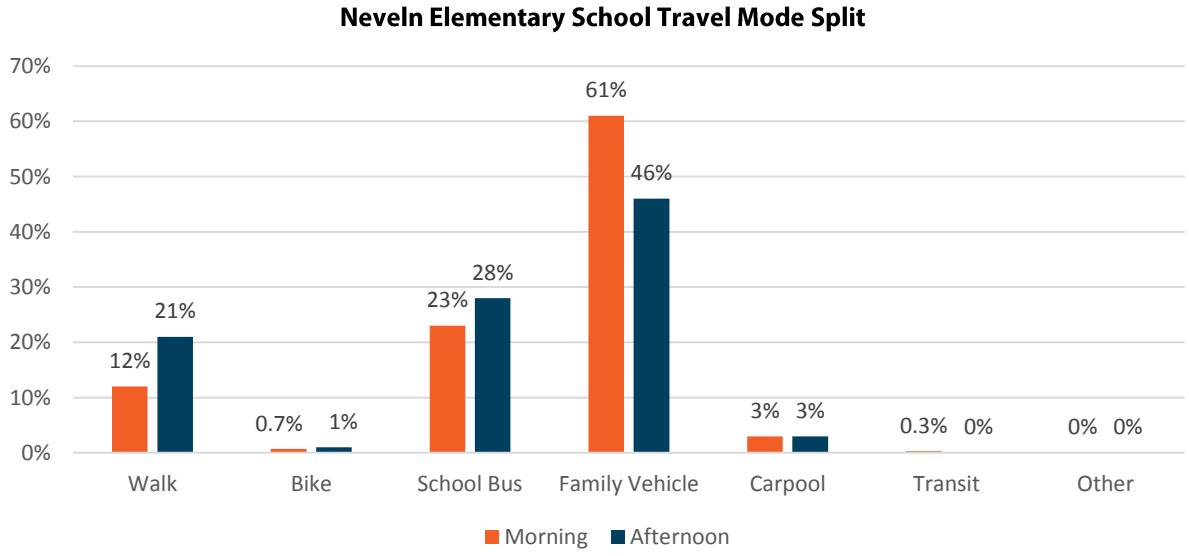
Toaster style bicycle racks are located on the north side of the school, along a sidewalk approaching the west entrance of the school and adjacent to the school's outdoor recreation area.

Motor vehicle traffic moves quickly along Oakland Avenue E, which runs along the north side of Neveln. Traffic calming measures may want to be investigated along this corridor to improve safety.

School Travel Patterns

Student Travel Survey Summary

In-classroom tallies of students' arrival and departure travel modes were conducted at Neveln Elementary School over three days (Tuesday, Wednesday, and Thursday) in April 2014. A total of 1,101 trips were tallied in the mornings, and 944 were tallied during the afternoons. As shown in the chart, about 16% of students typically walk to school, and only about 1% of students ride a bike to school on an average day. Over half of Neveln students are transported by family vehicle or carpool, and the about a quarter of students arrive via school bus



Traffic Conditions and Crash Analysis

Oakland Avenue East was identified as a corridor of concern during the site visit. The road has an annual average daily traffic (AADT) count of 1,550, and connects motor vehicle traffic between Oakland Place NE to the west and Highway 218 to the east, both of which have higher volumes and speeds of traffic.

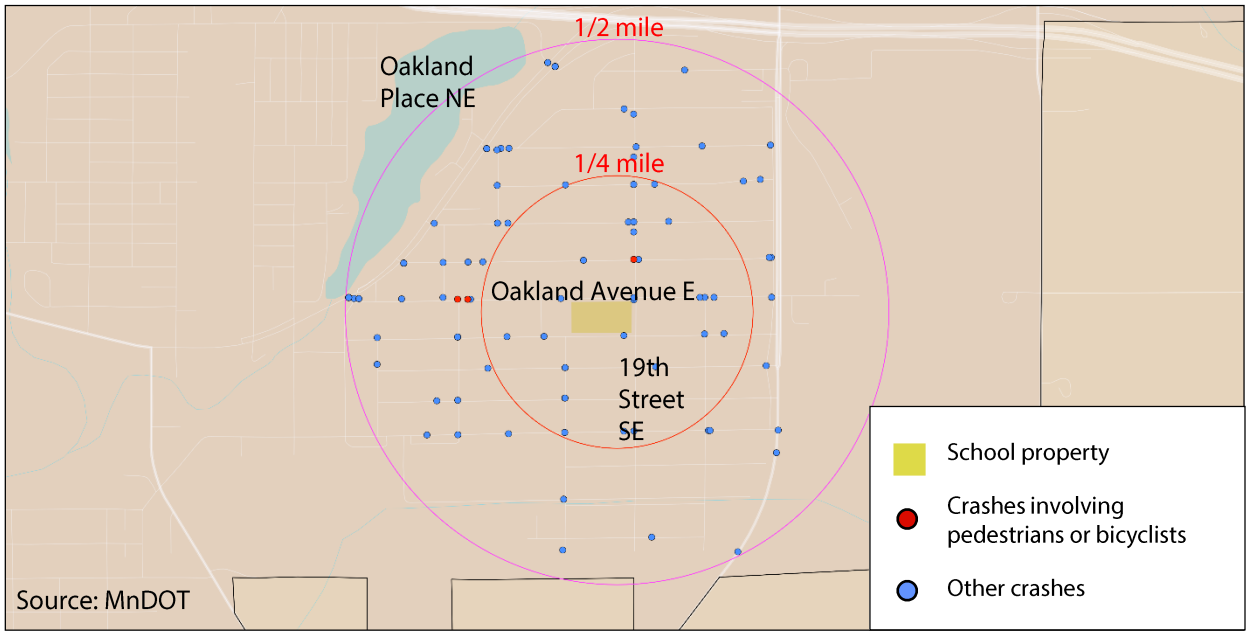
In addition, Oakland Avenue E has wide lanes and fast moving traffic. A 4-way stop is located at Oakland Avenue E and 19th Street SE at the northeast corner of the school property. The school's main entrance fronts 19th Street NE, which has an AADT of 1,300 two blocks south of Neveln, and 910 AADT one block north. Other nearby corridors include Oakland Place NE with an AADT of 7,000 motor vehicles where it intersects 12th Street SE, 16th Street SE two blocks to the west (AADT of 1,100), and 4th Avenue SE three blocks to the south (AADT of 2,250 just east of the 16th Street SE intersection).

An assessment of collisions surrounding Neveln Elementary School was completed using Minnesota Department of Transportation (MnDOT) crash data from 2003 - 2013. Primary objectives in analyzing this data are to identify crash patterns and particular locations or corridors that have been unsafe for pedestrian and bicyclists over a period of time.

Data from 2003 - 2013 reported a total of 133 collisions within 1/2 mile of Neveln Elementary School. Of these collisions, one involved motor vehicles colliding with a pedestrian, and two with bicyclists.

One of the collisions occurred at 19th Street NE and 1st Avenue NE, and two occurred on Oakland Avenue E near 16th Street SE. One of the incidents on Oakland Avenue E involved a six-year-old pedestrian.

Crash Locations 2003 -2013



Site Audit

The audit took place during dismissal on October 24, 2013, and was conducted by two members of the project team. A walking audit of the surrounding neighborhood was conducted on October 23, 2013, in combination with the existing conditions audit for Ellis Middle School and IJ Holton Intermediate School, which are located three blocks southwest of Neveln.

Student patrols at Oakland Avenue E and 19th Street SE assist with pedestrian crossings at the busy 4-way stop.

Walking and Biking

Student patrols were present at the northeast corner of the school to assist students crossing Oakland Place and 19th Street SE as well as the south of school to assist with mid-block crossing. An estimated 50-60 students walked to the east of the school. It is unknown how many walked west.

Students also cross Oakland Avenue East at 18th Drive SE. According to school staff, this intersection feels too far away and too vulnerable to send student patrols, so there are not currently patrols at the intersection. Student patrols used to continue year round, but now stop when the weather is too cold because there are too few patrols to organize shifts.

Two toaster style bike racks are available near an entrance that is used during the morning and afternoon. There have been no problems so far with theft. Bicycle training courses are conducted for each grade in the school every October. The concrete of some sidewalks adjacent to the school was observed to be deteriorating.

Buses line up along the south side of Oakland Avenue E to pick up students.

Bus

Bus loading occurs along the sidewalk to the north of the school. There is sometimes conflict when parents park in the bus loading area while waiting for students. Some issues with bullying were expressed. Bullying most often occurs on the school bus, and during walks home due to unstructured time. Bullying is one reason that parents are concerned about their students riding the bus, along with concerns about transferring at the high school. According to the principal, 25-50% of discipline issues at the school occur on the bus.

Car

There is no parent parking lot or loop at Neveln. Parent pick- up and drop off takes place to the north, east, and south of the building along the sidewalk.

Parent pick-up along Oakland Avenue East was observed to cause slight distance conflicts, as it either interferes with bus pick-up on the south side of the street, or prompts students to run across Oakland Avenue East to meet waiting parents on the north side.

Infrastructure Recommendations

The initial field review and subsequent meetings yielded specific recommendations to address the key identified barriers to walking and biking at Neveln Elementary School. 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 bicycling 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. Short term projects that should be addressed in the 2014-2015 school year are noted as such in Implementation Strategy section of this Plan. Some of the more significant recommendations for changes to streets and intersections may require policy changes, additional discussion and coordination, engineering and significant funding sources.

All engineering recommendations are described on the following page with locations shown on the Recommended Improvements Map. 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.

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 evaluated annually and repainted every other year or more often as needed.

While walking and bicycling diminish during the cold winter months, it is particularly important to prioritize snow removal and maintenance of school routes. 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 bicyclist 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.

Infrastructure Implementation

This strategy identifies programs that can be started in first year of plan implementation and summarizes the estimated timing of infrastructure improvements.

Future Actions

While some recommendations may not be implemented in year one, it is still important to plan and prepare for future infrastructure projects. These future actions are displayed in simplified timeline, illustrating a potential approach to phasing in certain activities.

Neveln Elementary Infrastructure Recommendations

Project	Location	Problem/Issue	Solution/Recommendation	Lead Agency	Year 1	Year 2	Year 3	Year 4	Year 5
A	Oakland Ave E	Speeding creates safety issue.	Explore strategies to reduce vehicle speeds on Oakland Ave, including traffic calming features. Consider removable speed humps or snow plow compatible sinusoidal speed humps.	City of Austin					
B	18th Dr SE at Oakland Ave E	Current conditions not up to ADA standards. Intersection lacks marked crosswalk.	Construct a curb ramp on the west side of the crossing of 18th Dr SE. Stripe high-visibility crosswalk across 18th Dr SE.	City of Austin					
C	Oakland Ave E at 18th	Difficult crossing. Speeding along Oakland Ave E creates safety issue.	Construct a center median with pedestrian refuge to assist in crossing Oakland Ave. Stripe high-visibility crosswalks across Oakland Ave E.	City of Austin					
D	Oakland Ave E and 19th St NE	Perception that drivers are not complying with stop signs.	Consider community-created creative placemaking projects such as a “street mural” to influence driver awareness of this intersection.	Vision 2020 Austin					
E	18th Dr SE at 1st Ave SE	Current crosswalk striping is low-visibility.	Upgrade existing standard crosswalks to high-visibility crosswalks.	City of Austin					
F	1st Ave SE at 18th St SE	Current crosswalk striping is low-visibility.	Upgrade existing standard crosswalks to high-visibility crosswalks.	City of Austin					
G	1st Ave SE and 19th St SE	Wide street makes for long crossing distances. Current crosswalk striping is low-visibility.	Mark with high-visibility crosswalks.	City of Austin					

Neveln Elementary School

Oakland avenue is wide and traffic travels quickly. Recommended traffic calming and crossing improvements will help improve safety for those crossing.

Recommended Improvements

- **A** Explore strategies to reduce vehicle speeds on Oakland Ave, including traffic calming features. Consider removable speed humps or snow plow compatible sinusoidal speed humps.
- **B** Construct a curb ramp on the west side of the crossing of 18th Dr SE. Stripe high-visibility crosswalk across 18th Dr SE.
- **C** Construct a center median with pedestrian refuge to assist in crossing Oakland Ave. Stripe high-visibility crosswalks across Oakland Ave E.
- **D** Consider community-created creative placemaking projects such as a "street mural" to influence driver awareness of this intersection.
- **E** Upgrade existing standard crosswalks to high-visibility crosswalks.
- **F** Upgrade existing standard crosswalks to high-visibility crosswalks.
- **G** Mark with high visibility crosswalks.

Programs Recommendations

The Safe Routes to School movement has been a leader in acknowledging that infrastructure changes are a necessary but insufficient condition for shifting school travel behavior. While engineering improvements like sidewalks, crosswalks, and bikeways are important, equally important are education programs to make sure children and families have basic safety skills, encouragement programs to highlight walking and biking to school as fun and normal, enforcement against unsafe and illegal motorist behavior, and evaluation of the impact of investments and non-infrastructure efforts.

The programs listed to the right were identified as priority programs for your school during the SRTS planning process. These programs were selected to meet the interest and needs of the school community in the near term (1 to 5 years).

Recommended Programs for Neveln Elementary School

- Walk to School Day in October
- Bike/Walk to School In May
- Safe Routes to Schools Recommended Routes Maps
- School Safety Campaign – focus on back to school and again in spring
- Continue Rodeo – in spring to support bike to school with bike month
- Classroom education – Bike Walk Fun
- School Assemblies
- Speed Enforcement - Speed Feedback Signs

Please review the **SRTS Programs Guide** for detailed information on each program concept, including the primary intended outcomes, potential lead and partners, a recommended timeframe for implementation, resources and sample programs, and a short description.

Implementation

The programs identified for year one implementation will require the leading organization to take some immediate actions to make progress and follow this timeline.

Year one programs were selected based on existing capacity and interest identified during the planning process. Most education, encouragement and enforcement programs will be ongoing and once started can be integrated into school programs year after year.

Future Actions

While some recommendations may not be implemented in year one, it is still important to plan and prepare for future programmatic projects. These future actions are displayed in simplified timeline, illustrating a potential approach to phasing in certain activities.

Planning → Implementation

Neveln Elementary Programs Recommendations

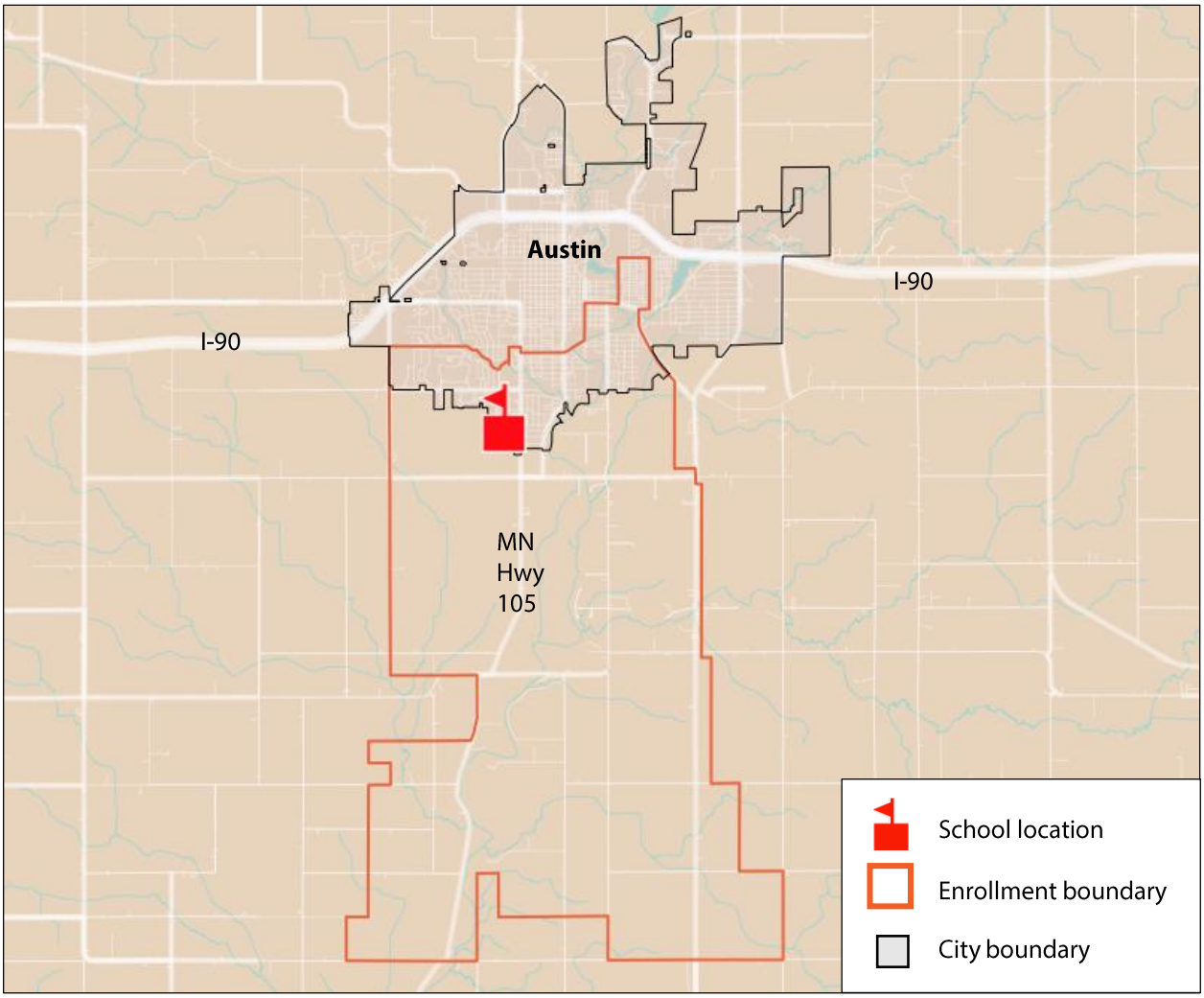
Type	Program	Potential Lead	Key Partner	Year 1	Year 2	Year 3	Year 4	Year 5
Encouragement	**Walk to School Day in October**	City of Austin/Vision 2020	Austin Public Schools	→	→	→	→	→
Walk and Bike to School Day is an international event that attracts millions of participants in over 30 countries each October. The event encourages students and their families to try walking or bicycling to school.								
Encouragement	**Bike/Walk to School In May**	City of Austin/Vision 2020	Austin Public Schools	→	→	→	→	→
An additional walk and bike to school day in May continues to encourage students to walk or bicycle to school. Hosting additional events depends on organizational capacity, the level of support, and school interest.								
Education	**Safe Routes to Schools Recommended Routes Maps**	City of Austin/Vision 2020	Austin Public Schools		→	→	→	→
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.								
Education	**School Safety Campaign - focus on back to school and again in spring**	Austin Public Schools	City of Austin Police Department			→	→	→
A safety campaign is an effective way to build awareness around students walking and bicycling to school and to encourage safe driving behavior among parents and people passing by.								
Education	**Continue Rodeo – in spring to support bike to school with bike month**	Lions	City of Austin Police Department	→	→	→	→	→
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.).								
Education	**Classroom education – Bike Walk Fun**	District Physical Education Teachers	Austin Public Schools		→	→	→	→
Safe Routes to School classroom lessons address walking and/or bicycling and other related topics while also meeting state or district curriculum standards.								
Education	**School Assemblies**	School Administrator	SHIP - Public Health		→	→	→	→
Assemblies grab students' attention through fun, interactive activities, such as games, skits, or demonstrations. Safe Routes to School assemblies often cover pedestrian and/or bicycle safety but can also address bicycling skills, the environment, health, and other topics.								
Enforcement	**Speed Enforcement - Speed Feedback Signs**	City of Austin Police Department	Austin Public Schools		→	→	→	→
Some types of enforcement do not require the presence of a law enforcement officer and are automated. Photo detection, radar trailers, or speed feedback signs are examples of automated enforcement.								

Southgate Elementary School

School Context

Southgate Elementary School is located in southwest Austin. School enrollment for the 2013-2014 school year was 449 students. The principal of Southgate Elementary is Edwina Harder. Arrival time for students is 8:10am, and dismissal time is 2:40pm.

School Enrollment Boundary



Surrounding Land Use

Southgate Elementary School is located in southwest Austin. Land-uses directly to the south and west of the school are primarily agricultural. A small development of gridded low-density housing extends to the east of the school, and is bound on the east by more agricultural uses. Low density housing also exists to the north and northwest. Roads are meandering and sidewalks are generally not provided in the area that surrounds the school.

Comb style bicycle racks are provided. Alternative rack styles allow improved bicycle security.

Main roads include 12th Street SW to the east of the school, and 16th Avenue SW to the north. A frontage road to the east of 12th Street SW runs from 17th Avenue SW (north of the school) to 21st Avenue SW (south of the school). Sidewalks are present on the west side of 12th Street. There are two marked crossings on 12th: midway between 16th Avenue SW and 19th Avenue SW, and where 19th Avenue SW tees into 12th Street SW.

Student Walking and Biking

Sidewalk connections in the surrounding area are limited, with isolated occurrences connecting a stretch of houses or lining a portion of one block face. Sidewalks are present along the west side of 12th Street SW, and along the east side of the frontage road. Sidewalks are only present along the north side of 16th Avenue SW, and do not extend north or south onto residential streets. Sidewalks are not provided for students heading directly north from the school along SW 16th Street or 14th Street SW.

Students walk along one of the sidewalks in the area towards student patrolled crossing.

Student patrols were observed at pedestrian crossings on the northwest and northeast corners of the school property during a fall observation of dismissal. Standard crosswalks are painted at the northwest location, but are difficult to see and in need of repainting. An adult crossing guard was observed at 19th Avenue SW and 12th Street SW. This crossing is marked with a high visibility painted crosswalk, pedestrian signage, and flashing pedestrian beacon. Visibility of this crosswalk would be improved with fresh paint.

Student patrols assist with crossings near Southgate.

North along 12th Street SW, in front of the Faith Evangelical Church, is another high-visibility painted crosswalk. An additional pedestrian crossing is located north of Southgate at the intersection of 16th Street SW and 16th Avenue SW. Crossings here are marked with standard painted striping

(in need of repainting), and pedestrian signage. Footpaths are worn into the grass near the intersection where sidewalks are not provided.

Comb style bicycle racks are provided near the main entrance of the school. On-road bicycle facilities are not provided in the surrounding area.

School Layout

Southgate Elementary School's main entrance faces north to 19th Avenue SW. A parent pick-up and drop-off loop is located in front of the main entrance, and connects to a small parking lot at the east end of the loop. An additional parking lot for staff is located on the south end of the building. Some parents also pick up students along the west side of SW 16th Street.

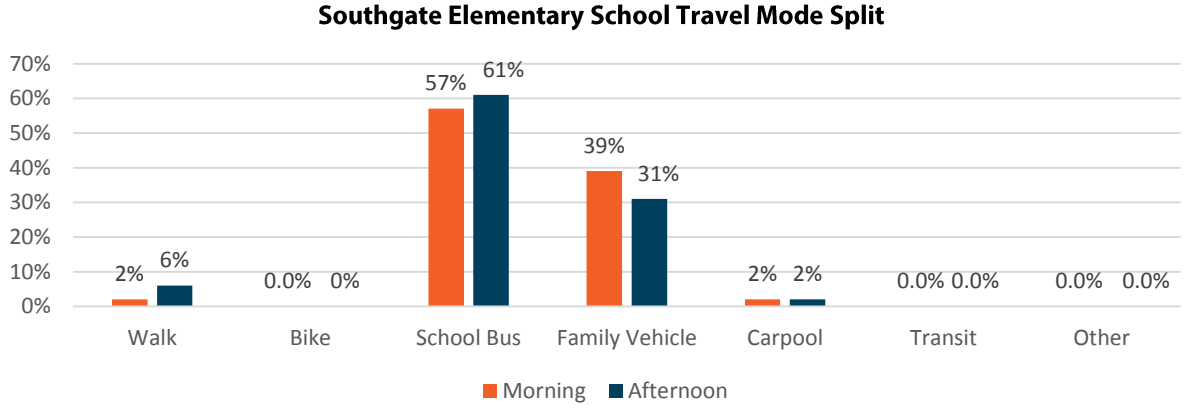
Buses pick up along the east side of SW 16th Street. Students walking home or being picked up by parents are released from the main entry on the north side of the school and students taking the bus are released from the west side of the building, towards the buses. There is a sidewalk along the west and north sides of the property, but not along the south or east sides.

A sidewalk ends at the edge of the Southgate Elementary School property.

School Travel Patterns

Student Travel Survey Summary

In-classroom tallies of students' arrival and departure travel modes were conducted at Southgate Elementary School over three days (Tuesday, Wednesday, and Thursday) in April 2014. A total of 1,243 trips were tallied in the mornings, and 1,230 were tallied during the afternoons. As shown in the chart, about 4% of students typically walk to school, and no students ride a bike to school on an average day. Over half of Southgate students are transported by school bus, and the remaining students arrive via family vehicle or carpool.



Traffic Conditions and Crash Analysis

Two corridors separate Southgate Elementary School from the bulk of nearby residential development. 16th Avenue SW to the north has an annual average daily traffic (AADT) of 3,300 motor vehicles. 12th Street SW has an AADT of 3,150 vehicles south of 16th Avenue SW intersection, and 6,200 north of the intersection. Both have painted crosswalks and pedestrian signage to mark student crossings, however an adult crossing guard is only present to assist with crossings of 12th Street SW. A frontage road runs along the east side of 12th Street SW between 21st Avenue SW and 17th Avenue SW.

Sidewalks are only sometimes present in the neighborhood surrounding Southgate.

An assessment of collisions surrounding Southgate Elementary School was completed using Minnesota Department of Transportation (MnDOT) crash data from 2003 - 2013. Primary objectives in analyzing this data are to identify crash patterns and particular locations or corridors that have been unsafe for pedestrian and bicyclists over a period of time.

Data reviewed from 2003 - 2013 reported a total of 38 collisions within 1/2 mile of Southgate Elementary School. Of these collisions, none involved pedestrians or bicyclists.

Site Audit

The audit took place on October 24, 2013 during dismissal, and was conducted by two members of the consultant team. A walking audit followed, including an observation of the pedestrian crossing at 16th Avenue SW and 16th Street SW, and the adult patrolled crossing at 19th Avenue SW and 12th Street SW. A driving audit was additionally conducted in the surrounding neighborhood to observe pedestrian conditions including sidewalk connectivity.

A student bikes on the sidewalk along 19th Avenue SW.

Walking and Biking

Walkers exited from the north side of the building where student safety patrols are located to assist with pedestrian crossings. In addition, an adult crossing guard employed by the city is located on 12th Street to assist with crossings at this street. The adult crossing guard said he usually helps 10-12 walkers and 2-3 bikers cross 12th Street SW each morning and afternoon. 16th Avenue to the north of the school was challenging to cross as a pedestrian during the neighborhood audit. There is a residential cul-de-sac located to the northwest of the school. A direct connection between the cul-de-sac and 16th Street SW would provide a much easier connection for students walking or bicycling towards the northwest.

Buses line up along SW 16th Street to pick up students.

There are three bicycle racks located just east of the school's main entrance. However they include one grid style rack and two toaster style racks, both of which allow only the front tire of bikes to be properly secured. Students riding bikes may ride on sidewalks. However due to the limited presence of sidewalks, students likely ride in the roadway or along the road in grass.

Bus

10 school buses pick up on SW 16th Street on the west side of the school.

Car

Parents picking up students in the circulation loop traveled on the right, closest to the building. There were some small circulation signs posted along the circulation loop informing parents when they are permitted to use the loop for pick-up and drop-off, but they are not noticeable. Parents also lined up along 19th Avenue SW and across the street from the school on SW 16th Street.

Infrastructure Recommendations

The initial field review and subsequent meetings yielded specific recommendations to address the key identified barriers to walking and bicycling at Southgate Elementary School. This plan does not represent a comprehensive list of every project that could improve conditions for walking and bicycling 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. Short term projects that should be addressed in the 2014-2015 school year are noted as such in Implementation Strategy section of this Plan. Some of the more significant recommendations for changes to streets and intersections may require policy changes, additional discussion and coordination, engineering and significant funding sources.

All engineering recommendations are described on the following page with locations shown on the Recommended Improvements Map. 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.

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 evaluated annually and repainted every other year or more often as needed.

While walking and cycling diminish during the cold winter months, it is particularly important to prioritize snow removal and maintenance of school routes. 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 bicyclist 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.

Infrastructure Implementation

This strategy identifies programs that can be started in first year of plan implementation and summarizes the estimated timing of infrastructure improvements.

Future Actions

While some recommendations may not be implemented in year one, it is still important to plan and prepare for future infrastructure projects. These future actions are displayed in simplified timeline, illustrating a potential approach to phasing in certain activities.

Southgate Elementary Infrastructure Recommendations

Project	Location	Problem/Issue	Solution/Recommendation	Lead Agency	Year 1	Year 2	Year 3	Year 4	Year 5
A	16th Ave SW from 18th St SW to 16th St SW	Gap in the sidewalk network.	Fill sidewalk gap along 16th Ave SW from 18th St SW to 16th St SW. (Alternatively, construct project F to provide the connection)	City of Austin					
B	16th Ave SW and 16th St SW	Intersection lacks the features that would create a safe, convenient crossing environment.	Upgrade the crosswalk across 16th Ave SW to high visibility. Install a RRFB. Construct dual curb ramps on SE corner. Extend sidewalk and install curb ramp on the NE corner to assist in crossing 16th St.	City of Austin					
C	16th St SW from 16th Ave SW to 19th Ave SW	Gap in the sidewalk network.	Fill sidewalk gap along 16th St SW from 16th Ave SW to 19th Ave SW.	City of Austin					
D	Faith Evangelical Free Church: 1800 12th St SW	Congestion in front of school during pick up and drop off.	Potential drop and walk location.	Austin Public Schools					
E	Open space NW of the school	Indirect connection from neighborhoods NW of school to the school.	Construct path through open space that connects 18th Ave SW to 16th St SW. (Alternatively, construct project A to provide the connection)	City of Austin					
F	Parent drop-off/pick-up loop	Congestion in the parent drop-off/pick-up loop. Traffic backs up onto 16th St SW	Restripe the driveway to encourage better circulation and increased drop-off capacity.	Austin Public Schools					
G	14th St SW	Small gap in the sidewalk network.	Fill sidewalk gap along 14th St SW just south of 19th Ave SW.	City of Austin					
H	12th St SW at 19th Ave SW	Difficult crossing. Lower than desired rates of yielding despite existing flashing beacon.	Upgrade the existing flashing beacon to a user-activated Rectangular Rapid Flash Beacon (RRFB).	City of Austin					
I	East side of the school grounds between 14th St SW and playground	Lack of pedestrian connection between 14th St SW and the playground.	Introduce a trail on the east side of the school grounds to connect the sidewalk to the playground.	Austin Public Schools					
J	Southern edge of school grounds.	Gap in the path/sidewalk network.	Add a trail along the south side of the school grounds.	Austin Public Schools					
K	12th St SW between 21st Ave SW and 22nd Ave SW	Gap in the sidewalk network.	Fill sidewalk gap.	City of Austin					

Southgate Elementary School

The intersection of 16th Ave and 16th St will be upgraded with completed curb ramps and sidewalk connections, a high visibility crosswalk and Rectangular Rapid Flash Beacons.

Driveway restriping will promote improved circulation and increase drop-off/pick-up capacity (G).

Recommended Improvements

- **A** Fill sidewalk gap along 16th Ave SW from 18th St SW to 16th St SW. (Alternatively, construct project F to provide the connection)
- **B** Upgrade the crosswalk across 16th Ave SW to high visibility. Install a RRFB. Construct dual curb ramps on SE corner. Extend sidewalk and install curb ramp on the NE corner to assist in crossing 16th St.
- **C** Fill sidewalk gap along 16th St SW from 16th Ave SW to 19th Ave SW.
- **D** Potential drop and walk location.
- **E** Construct path through open space that connects 18th Ave SW to 16th St SW. (Alternatively, construct project A to provide the connection)
- **F** Restripe the driveway to encourage better circulation and increased drop-off capacity.
- **G** Fill sidewalk gap along 14th St SW just south of 19th Ave SW.
- **H** Upgrade the existing flashing beacon to a user-activated Rectangular Rapid Flash Beacon (RRFB).
- **I** Introduce a trail on the east side of the school grounds to connect the sidewalk to the playground.
- **J** Add a trail along the south side of the school grounds.
- **K** Fill sidewalk gap.

Programs Recommendations

The Safe Routes to School movement has been a leader in acknowledging that infrastructure changes are a necessary but insufficient condition for shifting school travel behavior. While engineering improvements like sidewalks, crosswalks, and bikeways are important, equally important are education programs to make sure children and families have basic safety skills, encouragement programs to highlight walking and biking to school as fun and normal, enforcement against unsafe and illegal motorist behavior, and evaluation of the impact of investments and non-infrastructure efforts.

The programs listed to the right were identified as priority programs for your school during the SRTS planning process. These programs were selected to meet the interest and needs of the school community in the near term (1 to 5 years).

Recommended Programs for Southgate Elementary School

- Walk to School Day in October
- Bike/Walk to School In May
- Safe Routes to Schools Recommended Routes Maps
- School Safety Campaign - focus on back to school and again in spring
- Continue Rodeo – in spring to support bike to school with bike month
- Classroom education – Bike Walk Fun
- Walking School Bus and/or Bike Train
- Park and Walk
- Classroom Competitions

Please review the **SRTS Programs Guide** for detailed information on each program concept, including the primary intended outcomes, potential lead and partners, a recommended timeframe for implementation, resources and sample programs, and a short description.

Implementation

The programs identified for year one implementation will require the leading organization to take some immediate actions to make progress and follow this timeline.

Year one programs were selected based on existing capacity and interest identified during the planning process. Most education, encouragement and enforcement programs will be ongoing and once started can be integrated into school programs year after year.

Future Actions

While some recommendations may not be implemented in year one, it is still important to plan and prepare for future programmatic projects. These future actions are displayed in simplified timeline, illustrating a potential approach to phasing in certain activities.

Planning → Implementation

Southgate Elementary Programs Recommendations

Type	Program	Potential Lead	Key Partner	Year 1	Year 2	Year 3	Year 4	Year 5
Encouragement	**Walk to School Day in October**	City of Austin/Vision 2020	Austin Public Schools	→	→	→	→	→
Walk and Bike to School Day is an international event that attracts millions of participants in over 30 countries each October. The event encourages students and their families to try walking or bicycling to school.								
Encouragement	**Bike/Walk to School In May**	City of Austin/Vision 2020	Austin Public Schools	→	→	→	→	→
An additional walk and bike to school day in May continues to encourage students to walk or bicycle to school. Hosting additional events depends on organizational capacity, the level of support, and school interest.								
Education	**Safe Routes to Schools Recommended Routes Maps**	City of Austin/Vision 2020	Austin Public Schools		→	→	→	→
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.								
Education	**School Safety Campaign - focus on back to school and again in spring**	Austin Public Schools	City of Austin Police Department			→	→	→
A safety campaign is an effective way to build awareness around students walking and bicycling to school and to encourage safe driving behavior among parents and passersby.								
Education	**Continue Rodeo – in spring to support bike to school with bike month**	Lions	City of Austin Police Department	→	→	→	→	→
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.).								
Education	**Classroom education – Bike Walk Fun**	District Physical Education Teachers	Austin Public Schools			→	→	→
Safe Routes to School classroom lessons address walking and/or bicycling and other related topics while also meeting state or district curriculum standards.								
Encouragement	**Walking School Bus and/or Bike Train**	Parents	School Administrator		→	→	→	→
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 time								

Encouragement	**Park and Walk**	School Administrator	Austin Public Schools	

This program is designed to encourage families to park several blocks from school and walk the rest of the way to school. Not all students are able to walk or bike the whole distance to school; but they can still participate in walking to school activities.

Encouragement	**Classroom Competitions**	Teachers	Parent volunteers	

Competitions and contests reward students by tracking the number of times they walk, bike, carpool or take transit to school. Contests can be individual, classroom competitions, school wide, or between schools.

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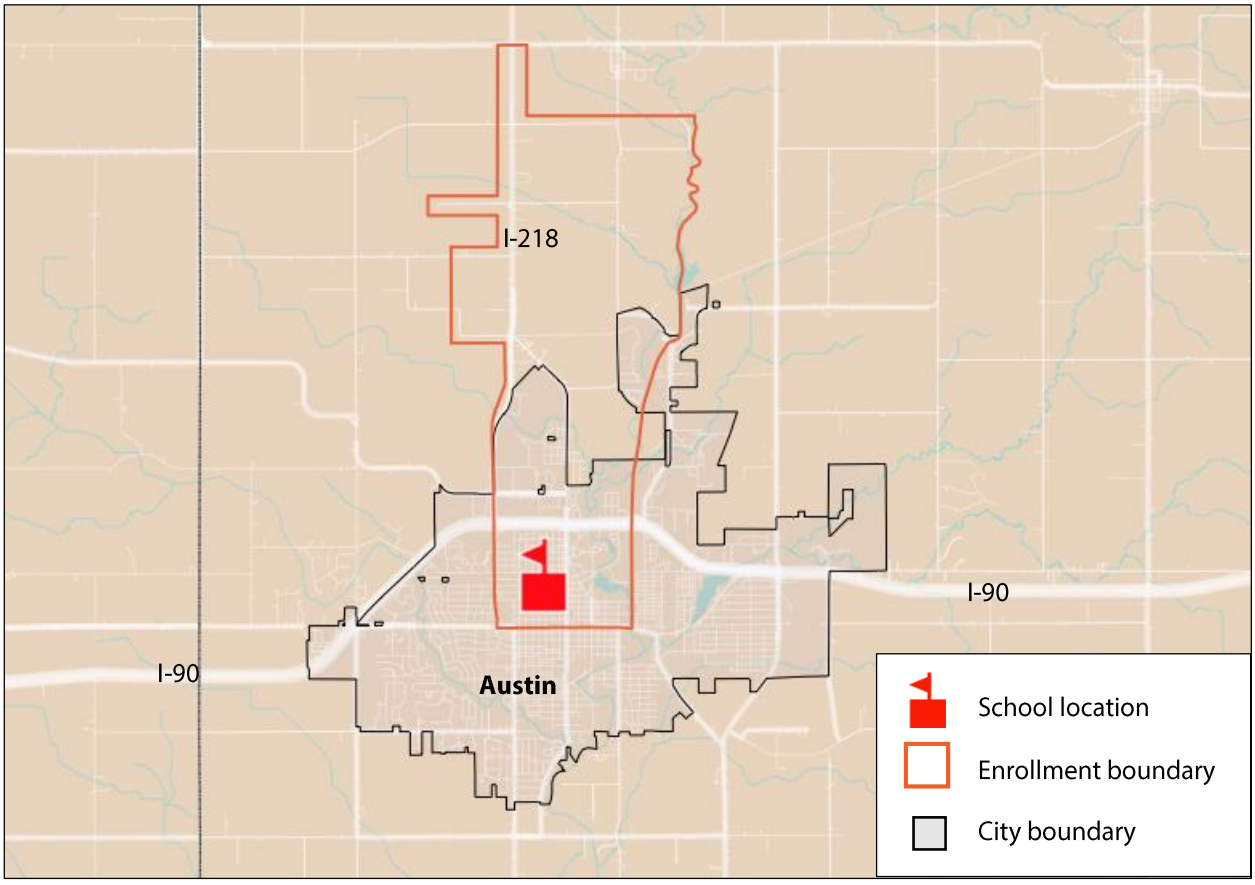
Sumner Elementary School

Existing Conditions

School Context

Sumner Elementary School is a year-round school located in a residential neighborhood with a consistent street grid and short blocks. The school is located in the north-central part of Austin. School enrollment for the 2013-2014 school year was 205 students. The principal of Sumner Elementary is Sheila Berger. Arrival time for students is 8:50am, and dismissal time is 3:30pm.

School Enrollment Boundary



Surrounding Land Use

Sumner Elementary School is bordered by 8th Avenue NW to the north, 7th Avenue NW to the south, 8th Street NW to the west, and 7th Street NW to the east. 8th Avenue NW has higher traffic volumes than other surrounding roads, serving as a connector between busy 4th Street NW to the east, and 14th Street NW to the west. The property has a small blacktop area, but does not have a large outdoor field or parking lot.

Some high-density housing is located northeast of the school on the edge of the bus radius, but in an area that is difficult for walking. Students that live beyond half a mile from school are eligible for busing.

There is a blacktop play area to the southeast of the school building.

Student Walking and Biking

Sidewalks are present on both sides of the four streets that bound the Sumner Elementary School site: 8th Avenue NW, 7th Avenue NW, 8th Street NW, and 7th Street NW. Four-way stops exist at the northwest corner of the school at 8th Street NW and 8th Avenue NW, as well as the southeast corner at 7th Street NW and 7th Avenue NW. Intersections at the northeast and southwest corners are not four way stops and, as a result, are intersections of higher concern for students walking and biking to school.

School zone signs are present on 8th Avenue NW near the school.

Student patrols are present on the southeast, southwest, and northwest corners of the school block during school arrival, with two at each intersection. Student patrols are 4th graders, and are monitored by adult staff at each intersection. An adult crossing guard that is employed by the city assists with crossing at 7th Avenue NW and 4th Street NW/Broadway, east of the school. A flashing beacon is present at this crossing as well.

A moveable pedestrian crossing sign is placed in the crosswalk across 8th Avenue NW at the northeast corner of the school during arrival and dismissal. Sidewalks are generally well maintained surrounding the school, and connected throughout the neighborhood grid.

A flashing beacon is located at the intersection of Broadway (4th Street NW) and 7th Avenue NW.

Bicycle racks are present on the southwest corner of the school. The rack contained 10-20 bicycles at the time of observation. It was reported that bicycles not being locked is a problem. Students are allowed to bring skateboards and scooters inside during the day. The bike racks are not visible from inside the school and therefore are vulnerable to theft and graffiti.

School Layout

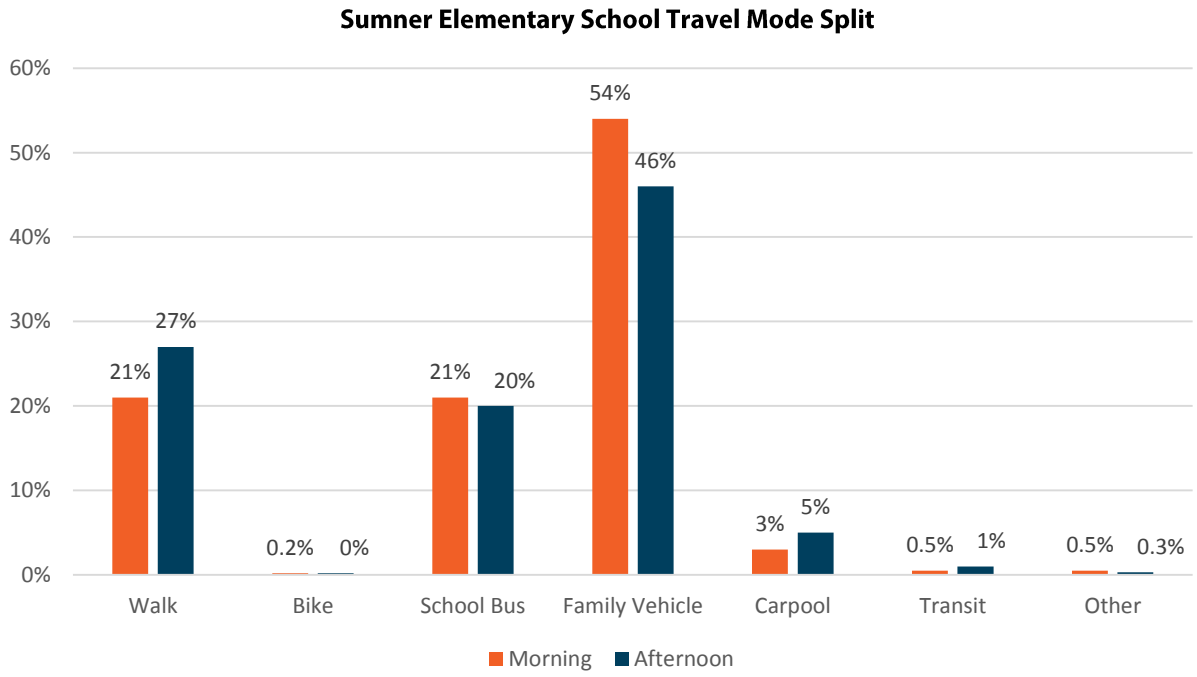
Sumner Elementary School is located on 8th Avenue NW in Austin. The primary school entrance is off of 8th Avenue NW, and there is an alternate entrance in the rear for students who are dropped off on 7th Avenue NW or otherwise come from the south. Diagonal parking stalls line most of the west side of the building, and open play areas of blacktop surround the school on the south and east sides.

Bikers and walkers enter through the main door (facing 8th Avenue NW) in the morning, and exit from the rear door (facing 7th Avenue NW) during dismissal. Parents drop off students along the curb on to the south and north of the school (8th Avenue and 7th Avenue), as well as along 7th Street on the east side of the building. School buses drop off along the north side of the school on 8th Avenue NW.

School Travel Patterns

Student Travel Survey Summary

In-classroom tallies of students' arrival and departure travel modes were conducted at Sumner Elementary School over three days (Tuesday, Wednesday, and Thursday) in April 2014. A total of 563 trips were tallied in the mornings, and 573 were tallied during the afternoons. As shown in the chart, about 25% of students typically walk to school, and less than 1% of students ride a bike to school on an average day. About half of Sumner students are transported by family vehicle or carpool, and the about 20% of students arrive via school bus.



Traffic Conditions and Crash Analysis

Located a few blocks from the school, 4th Street NW/Broadway has an AADT of 9,600 motor vehicles at 6th Avenue NW. 8th Avenue NW has an AADT of 1,500 motor vehicles just east of the school.

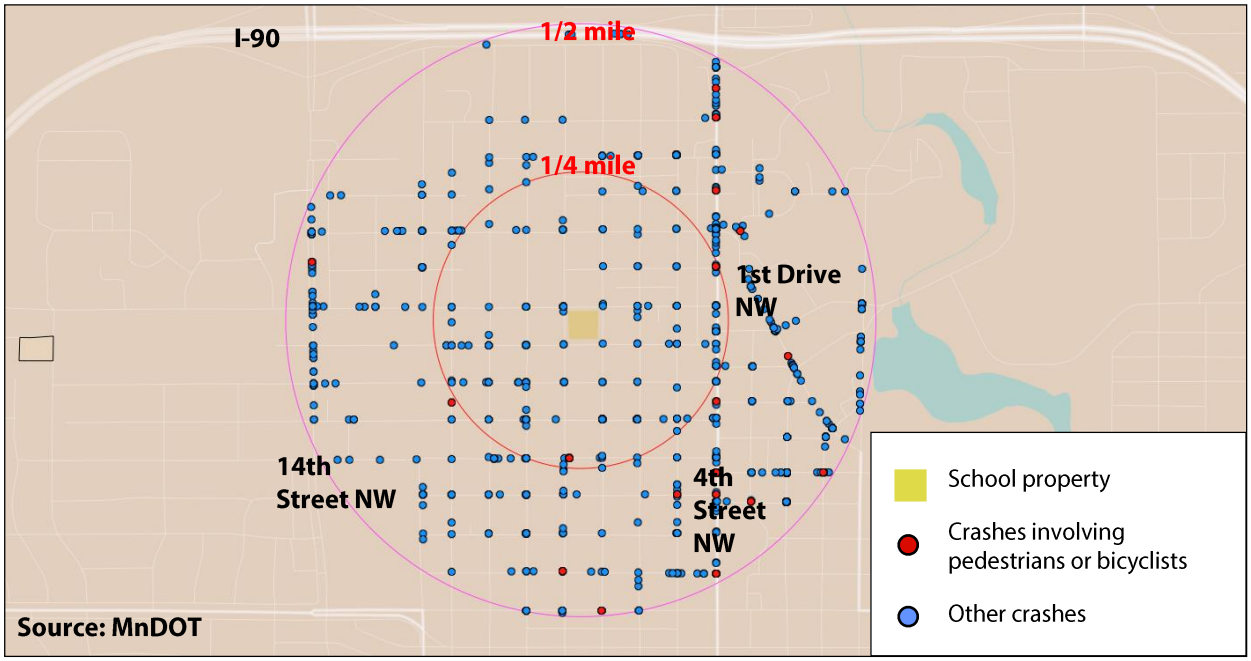
Bicycle racks are present on the south side of the school site.

An assessment of collisions surrounding Sumner Elementary School was completed using Minnesota Department of Transportation (MnDOT) crash data from 2003 - 2013. Primary objectives in analyzing this data are to identify crash patterns and particular locations or corridors that have been unsafe for pedestrian and bicyclists over a period of time.

Data reviewed from 2003 - 2013 reported a total of 836 collisions within 1/2 mile of Sumner Elementary School. Of these collisions, five involved motor vehicles colliding with pedestrians, and 14 with bicyclists.

Nine of the 19 collisions occurred on 4th Street NW to the east of the school. Six of the 19 collisions involved individuals ranging from age eight to age fifteen (five were on bike, and one was a pedestrian).

Crash Locations 2003 - 2013



Site Audit

The audit took place in the morning of October 24, 2013. A total of four individuals attended the audit, including representatives from Sumner Elementary, the consulting team and the general public. After observing the school arrival process, participants conducted a thorough walking tour of the area surrounding the school, with special attention being given to conditions for pedestrians and bicyclists along 8th Avenue NW and Broadway.

Students approach the front door along 8th Avenue NW.

Walking and Biking

Bikers and walkers enter through the main door (facing 8th Avenue NW) in the morning, and exit from the rear door (facing 7th Avenue NW) during dismissal. In the afternoon, an estimated 160 students exit through the rear door, including walkers, bikers, and students being picked up by parents. There are an estimated 10-20 bikes parked on the bicycle rack on any given day, but there have been problems with bicycle theft, partially because bikes are not properly locked. Moving the rack to a more visible location may also discourage theft. There was graffiti surrounding the racks at the time of the audit.

Bus

The drop off process was observed to be orderly and efficient. Bussed students arrived before many of the other students arrived by bike, foot, or motor vehicle.

Car

Parents drop off students along the curbs of 8th Avenue NW to the south, 7th Avenue NW to the north and 7th Street to the east of the building. During observation, parent drop-off occurred at a steady rate and was never too crowded. The school principal reports that there is a larger traffic concern in the afternoon. During dismissal, parents are instructed to enter the building to pick up their students.

Infrastructure Recommendations

The initial field review and subsequent meetings yielded specific recommendations to address the key identified barriers to walking and biking at Sumner Elementary. This plan does not represent a comprehensive list of every project that could improve conditions for walking and bicycling in the neighborhood – but rather the key conflict points and highest priority infrastructure improvements to improve walking and bicycling 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. Short term projects that should be addressed in the 2014-2015 school year are noted as such in Implementation Strategy section of this Plan. Some of the more significant recommendations for changes to streets and intersections may require policy changes, additional discussion and coordination, engineering and significant funding sources.

All engineering recommendations are described on the following page with locations shown on the Recommended Improvements Map. 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.

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 evaluated annually and repainted every other year or more often as needed.

While walking and bicycling diminish during the cold winter months, it is particularly important to prioritize snow removal and maintenance of school routes. 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.

Infrastructure Implementation

This strategy identifies programs that can be started in first year of plan implementation and summarizes the estimated timing of infrastructure improvements.

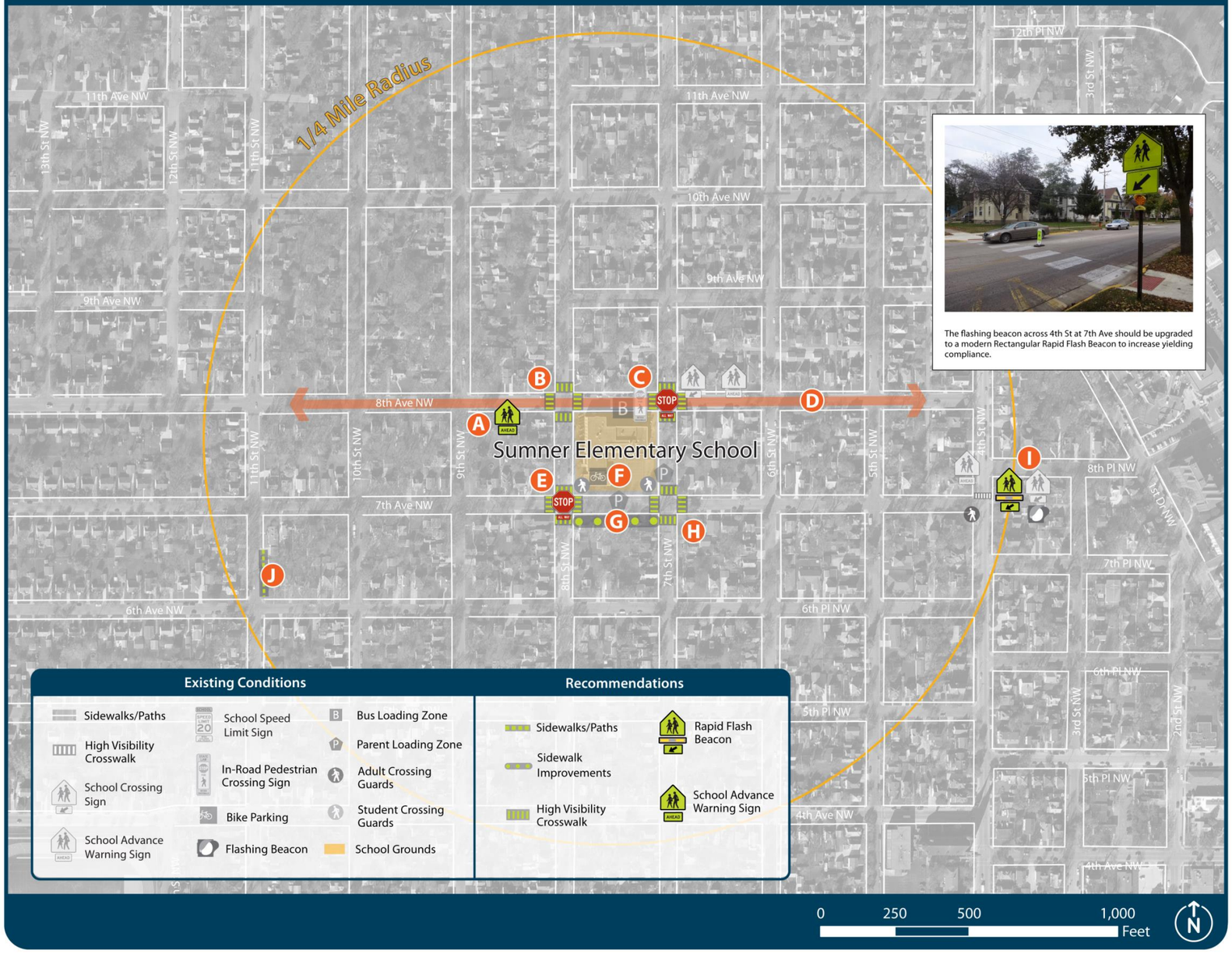
Future Actions

While some recommendations may not be implemented in year one, it is still important to plan and prepare for future infrastructure projects. These future actions are displayed in simplified timeline, illustrating a potential approach to phasing in certain activities.

Sumner Elementary Infrastructure Recommendations

Project	Location	Problem/Issue	Solution/Recommendation	Lead Agency	Year 1	Year 2	Year 3	Year 4	Year 5
A	8th Ave NW between 8th St NW and 9th St NW	Existing signage is non-standard.	Add MUTCD standard W16-9P plaque to existing School Area sign.	City of Austin	→				
B	8th Ave NW and 8th St NW	Existing crosswalk striping is low-visibility.	Upgrade crosswalk striping to high-visibility markings.	City of Austin	→				
C	8th Ave NW and 7th St NW	2-way stop control creates difficult crossing conditions for students at intersection directly adjacent to school entrance. Existing crosswalk striping is low-visibility.	Convert to 4-way stop control. Upgrade crosswalk markings to high-visibility.	City of Austin	→				
D	8th Ave NW	Concern about cut-through traffic and speeding near the school.	Study motor vehicle patterns; consider implementing speed and volume management techniques such as traffic calming and traffic diversion.	City of Austin	→	→	→		
E	7th Ave NW and 7th St NW	2-way stop control creates difficult crossing conditions for students at intersection directly adjacent to school exit. Existing crosswalk striping is low-visibility.	Convert to 4-way stop control. Upgrade crosswalk markings to high-visibility.	City of Austin	→				
F	Bike parking on school campus	Security issues with existing bike parking.	Erect fence around bike parking with lockable gate. Upgrade existing racks to a design that provides two points of contact with bicycle frames. Consider constructing an overhang or freestanding roof that provides rain and snow protection.	Austin Public Schools	→	→			
G	7th Ave NW from 8th St NW to 7th St NW	Cracks in the sidewalk create uneven surfaces.	Reconstruct cracked sections of sidewalk.	City of Austin	→	→	→	→	
H	7th Ave NW and 7th St NW	Existing crosswalk striping is low-visibility.	Upgrade crosswalk striping to high-visibility markings.	City of Austin	→				
I	7th Ave NW and 4th St NW	Existing flashing beacon is not producing desired yielding rates.	Upgrade to modern user-activated Rectangular Rapid Flash Beacon.	City of Austin	→	→			
J	11th St NW between 7th Ave NW and 6th Ave NW	Missing sidewalk near bus drop off.	Fill gap in the sidewalk network near bus drop off.	City of Austin	→	→			

Sumner Elementary School



The flashing beacon across 4th St at 7th Ave should be upgraded to a modern Rectangular Rapid Flash Beacon to increase yielding compliance.

Existing Conditions

- Sidewalks/Paths
- High Visibility Crosswalk
- School Crossing Sign
- School Advance Warning Sign
- School Speed Limit Sign
- In-Road Pedestrian Crossing Sign
- Bike Parking
- Flashing Beacon
- Bus Loading Zone
- Parent Loading Zone
- Adult Crossing Guards
- Student Crossing Guards
- School Grounds

Recommendations

- Sidewalks/Paths
- Sidewalk Improvements
- High Visibility Crosswalk
- Rapid Flash Beacon
- School Advance Warning Sign

Recommended Improvements

- **A** Add MUTCD standard W16-9P plaque to existing School Area sign.
- **B** Upgrade crosswalk striping to high-visibility markings.
- **C** Convert to 4-way stop control. Upgrade crosswalk markings to high-visibility.
- **D** Study motor vehicle patterns; consider implementing speed and volume management techniques such as traffic calming and traffic diversion.
- **E** Convert to 4-way stop control. Upgrade crosswalk markings to high-visibility.
- **F** Erect fence around bike parking with lockable gate. Upgrade existing racks to a design that provides two points of contact with bicycle frames. Consider constructing an overhang or freestanding roof that provides rain and snow protection.
- **G** Reconstruct cracked sections of the sidewalk.
- **H** Upgrade crosswalk striping to high-visibility markings.
- **I** Upgrade to modern user-activated Rectangular Rapid Flash Beacon.
- **J** Fill gap in the sidewalk network near bus drop off.

Programs Recommendations

The Safe Routes to School movement has been a leader in acknowledging that infrastructure changes are a necessary but insufficient condition for shifting school travel behavior. While engineering improvements like sidewalks, crosswalks, and bikeways are important, equally important are education programs to make sure children and families have basic safety skills, encouragement programs to highlight walking and biking to school as fun and normal, enforcement against unsafe and illegal motorist behavior, and evaluation of the impact of investments and non-infrastructure efforts.

The programs listed to the right were identified as priority programs for your school during the SRTS planning process. These programs were selected to meet the interest and needs of the school community in the near term (1 to 5 years).

Recommended Programs for Sumner Elementary School

- Walk to School Day in October
- Bike/Walk to School In May
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- School Safety Campaign - focus on back to school and again in spring
- Continue Rodeo – in spring to support bike to school with bike month
- Classroom education – Bike Walk Fun
- Walking School Bus and/or Bike Train
- School Communications - Promote Health and Environmental Benefits

Please review the **SRTS Programs Guide** for detailed information on each program concept, including the primary intended outcomes, potential lead and partners, a recommended timeframe for implementation, resources and sample programs, and a short description.

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The programs identified for year one implementation will require the leading organization to take some immediate actions to make progress and follow this timeline.

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Planning → Implementation

Sumner Elementary School Programs Recommendations

Type	Program	Potential Lead	Key Partner	Year 1	Year 2	Year 3	Year 4	Year 5
Encouragement	**Walk to School Day in October**	City of Austin/Vision 2020	Austin Public Schools	→	→	→	→	→
Walk and Bike to School Day is an international event that attracts millions of participants in over 30 countries each October. The event encourages students and their families to try walking or bicycling to school.								
Encouragement	**Bike/Walk to School In May**	City of Austin/Vision 2020	Austin Public Schools	→	→	→	→	→
An additional walk and bike to school day in May continues to encourage students to walk or bicycle to school. Hosting additional events depends on organizational capacity, the level of support, and school interest.								
Education	**Safe Routes to Schools Recommended Routes Maps**	City of Austin/Vision 2020	Austin Public Schools	→	→	→	→	→
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.								
Education	**School Safety Campaign - focus on back to school and again in spring**	Austin Public Schools	City of Austin Police Department	→	→	→	→	→
A safety campaign is an effective way to build awareness around students walking and biking to school and to encourage safe driving behavior among parents and passersby.								
Education	**Continue Rodeo – in spring to support bike to school with bike month**	Lions	City of Austin Police Department	→	→	→	→	→
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.).								
Education	**Classroom education – Bike Walk Fun**	District Physical Education Teachers	Austin Public Schools	→	→	→	→	→
Safe Routes to School classroom lessons address walking and/or bicycling and other related topics while also meeting state or district curriculum standards.								
Encouragement	**Walking School Bus and/or Bike Train**	Parents	School Adminstrator	→	→	→	→	→
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 time								

Education	**School Communications - Promote Health and Environmental Benefits**	School Administrator	SHIP - Public Health	→

Communications withing school newsleters and other take-home information can provide targetted information about health and environmental benefits to parents and students.

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Funded through a MnDOT federal
Safe Routes to School Planning Assistance Grant

Safe Routes to School Plan

Appendix: SRTS Infrastructure Glossary

June 2014

alta PLANNING + DESIGN

community design group

MINNESOTA DEPARTMENT OF TRANSPORTATION

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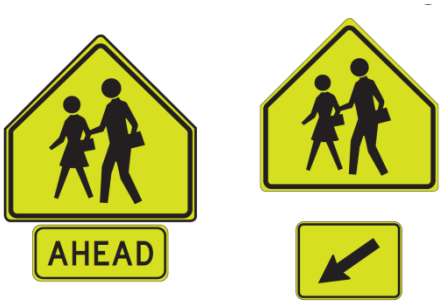
Appendix A:
Safe Routes to School Infrastructure Glossary

This glossary is intended to provide an introduction to the specific infrastructure improvements commonly used for Safe Routes to School. It is included as an appendix to the plan in effort to make it an easily available reference point for all parties using the Safe Routes to School Plan. Not all treatments are appropriate at every school location. In all cases engineering judgement should be exercised when determining the best infrastructure solution. The glossary contains information arranged in the following topic areas:

School Area Specific Signing and Marking

School Sign (S1-1)

The School Sign (S1-1) is used to warn drivers that they are approaching a school area, or to identify the beginning of a designated school zone.



School Crossing Assemblies

The School Sign may be combined with small plaques to indicate specific crossing locations. A school sign combined with an AHEAD plaque (W16-9p) creates a *School Advance Crossing Assembly*, used to warn road users that they are approaching a crossing where schoolchildren cross the roadway.

At specific crosswalks or crossing locations, a *School Crossing Assembly* indicates the location of the crossing point where schoolchildren are expected to cross. It includes a School sign (S1-1) and a diagonal downward arrow (W16-7p) must be included.

School Zone Speed Limit Assembly

A School Zone Speed Limit Assembly identifies a speed limit for used in a specific geographic area. Speed limits may apply over limited time frames or conditions as indicated on the sign.

School Crossing Pavement Markings

As a supplement to a marked crosswalk, the SCHOOL word marking may provide additional warning to drivers about the potential presence of school children.

Crossing Treatments

Active Warning Beacon

Active warning beacons are user-actuated flashing lights that supplement warning signs at unsignalized intersections or mid-block crosswalks. Rectangular Rapid Flash Beacons (RRFBs), a type of active warning beacon, use an irregular flash pattern similar to emergency flashers on police vehicles.

Standard Marked Crossings

The simplest form of marked crosswalk is two transverse lines, indicating the crossing area. A marked crosswalk signals to motorists that they must stop for pedestrians and encourages pedestrians to cross at designated locations. Installing crosswalks alone will not necessarily make crossings safer especially on multi-lane roadways.

In-Street Yield to Pedestrian Sign

In-street pedestrian crossing signs reinforce the presence of crosswalks and remind motorists of their legal obligation to yield for pedestrians in marked or unmarked crosswalks. This signage is often placed at high-volume pedestrian crossings that are not signalized. On streets with multiple lanes in each direction, additional treatments such as median islands or active warning beacons may be more appropriate.

High Visibility Marked Crossings

A marked crossing typically consists of a marked crossing area, warning signs and other markings to slow or stop traffic.

When space is available, a median refuge island can improve user safety by providing pedestrians and bicyclists space to perform the safe crossing of one half of the street at a time.

Median Refuge Island

Median refuge islands are protected spaces placed in the center of the street to facilitate bicycle and pedestrian crossings. Crossings of two-way streets are simplified by allowing bicyclists and pedestrians to navigate only one direction of traffic at a time. This may also functions as a Traffic Calming technique when configured to manage access to streets.

Raised Crosswalk

Raised crosswalks are crossings elevated to the same grade as the multi-use trail. Raised crosswalks may be designed as speed tables, and have a slowing effect on crossing traffic.

A raised crossing profile design known as a sinusoidal profile may be selected for compatibility with snow removal equipment.

Pedestrian Hybrid Beacon

Pedestrian hybrid beacon are traffic control signals commonly used to stop traffic along a major street to permit safe crossing by pedestrians or bicyclists. The signals provide very high levels of compliance by using a red signal indication, while offering lower delay to motorized traffic than a conventional signal.

The Minnesota Manual on Traffic Control Devices permits Pedestrian Hybrid Beacon installation at both mid-block and intersection locations. (Section 4F.2) The Minnesota MUTCD says: "If installed at an intersection, appropriate side street traffic control should be considered." This may include STOP or YIELD signs as determined by a traffic engineer.

ADA Compliant Curb Ramps

Curb ramps allow all users to make the transition from the street to the sidewalk. A sidewalk without a curb ramp can be useless to someone in a wheelchair, forcing them back to a driveway and out into the street for access.

Although diagonal curb ramps might save money, they create potential safety and mobility problems for pedestrians, including reduced maneuverability and increased interaction with turning vehicles, particularly in areas with high traffic volumes.

Advance Stop Bar

Advance stop bars increase pedestrian comfort and safety by stopping motor vehicles well in advance of marked crosswalks, allowing vehicle operators a better line of sight of pedestrians and giving inner lane motor vehicle traffic time to stop for pedestrians.

Curb Extensions

Curb extensions are areas of the sidewalk extended into the roadway, most commonly where a parking lane is located. Curb bulbs help position pedestrians closer to the street centerline to reduce crossing distances and improve visibility and encourage motorists to yield at crossings.

Countdown Pedestrian Signal

Countdown pedestrian signals are particularly valuable for pedestrians, as they indicate whether a pedestrian has time to cross the street before the signal phase ends. Countdown signals should be used at all signalized intersections.

Signals should be timed to provide enough time for pedestrians to cross the street. The MUTCD recommends a longer pedestrian clearance time in areas where pedestrians may walk slower than normal, including the elderly and children.

Leading Pedestrian Interval

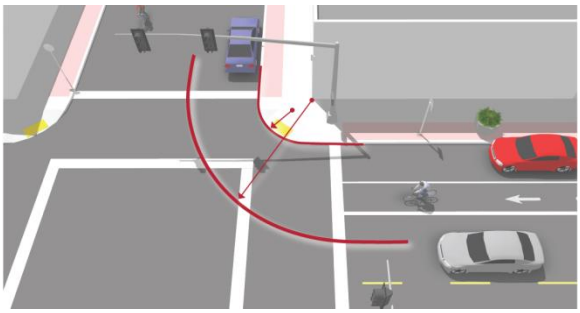
A leading pedestrian interval is a condition where a pedestrian signal displays a WALK signal for pedestrians prior to displaying a green signal for adjacent motor vehicle traffic. This early display gives pedestrians a head start and may increase the percentage of drivers who yield to crossing pedestrians.

Audible Signals

In addition to the visual cues provided by signal heads, audible signals provide guidance for vision-impaired pedestrians. Different audible signals should be used for different crossing directions to inform the pedestrian which intersection leg has a walk signal. Sounds should be activated by the pedestrian push-button.

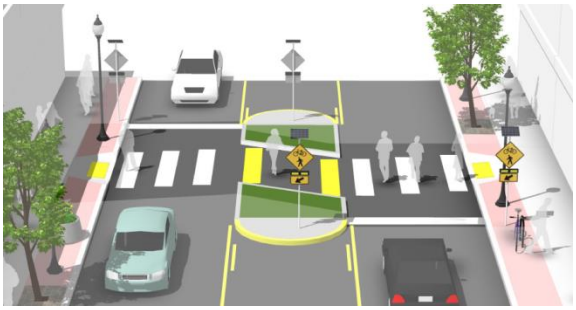
No Turn On Red

No Turn on Red restrictions prevent turns during the red signal indication to reduce motor vehicle conflicts with bicyclists and pedestrians using the crosswalk.



Minimize Corner Radii

The size of a curb's radius can have a significant impact on pedestrian comfort and safety. A smaller curb radius provides more pedestrian area at the corner, allows more flexibility in the placement of curb ramps, results in a shorter crossing distance and requires vehicles to slow more on the intersection approach. During the design phase, the chosen radius should be the smallest possible for the circumstances.



Offset Crosswalk

Offset crosswalks use staggered pavement markings and a median refuge island with a diagonal pathway to direct pedestrians' attention to oncoming traffic before crossing.

Traffic Signal Timing

Traffic lights must assume that pedestrians walk a certain speed to calculate the time needed to cross at a light, often 3.5 feet per second. However, children may require more time to cross an intersection than adults. Re-timing signals to 3.25 or even 2.8 feet per second at crossings used by large numbers of students and seniors can ensure that everyone has time to cross the intersection safely.

Traffic Calming

The term "traffic calming" describes a range of improvements that reduce traffic speeds or traffic volumes intended to improve safety for all road users. Treatments are mostly appropriate for local streets not meant for through traffic. Some traffic calming seeks to slow down through traffic, while other traffic calming seeks to divert through traffic and reduce traffic volumes.

Securing community support before proceeding with a traffic calming project can help to make it more successful. Benefits to local residents may include a safer neighborhood to walk and bicycle in, though sometimes at the cost of driving convenience.

Traffic calming measures in the context of a Safe Routes to School program can help reduce driving speeds near schools, discourage dangerous or illegal driving maneuvers, and encourage the use of appropriate routes when driving to or from school. They should be combined thoughtfully with the other improvements described in this glossary.

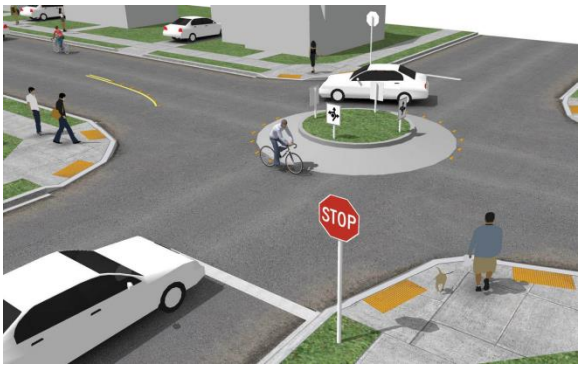
Chicanes

A chicane is a curb extension, usually built in alternating patterns or with intermittent median strips, that creates an S-shaped curve on a street. These minor curves require motorists to proceed with greater caution and slower speeds. They may also provide additional space for landscaping or pedestrians. Some chicanes are concrete curbs, while others are painted on the roadway.

Speed Humps & Speed Tables

Speed humps are rounded vertical traffic calming features common on residential streets, and may be used to control speed along a corridor.

Speed tables are similar mesa-shaped features that may be configured as raised crossings, as shown above. If configured as a raised crossing, the speed table should be elevated so that it is flush with the sidewalk and/or multi-use trail.

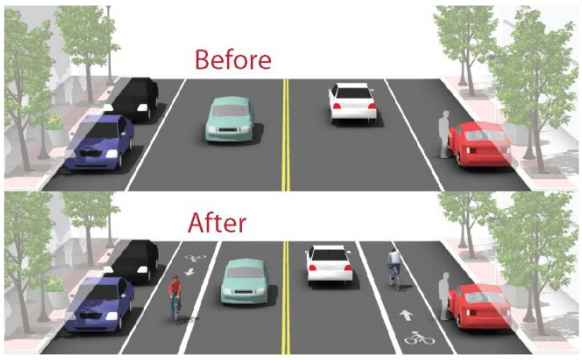


Traffic Circles

Traffic circles are generally used to replace a 4-way-stop intersection. Traffic circles can improve safety as well as travel times and intersection efficiency. Many drivers are not familiar with traffic circles so signage can help them to navigate the intersection. Many traffic circles are built with mountable curbs so that emergency vehicles may quickly and easily proceed through the intersection.

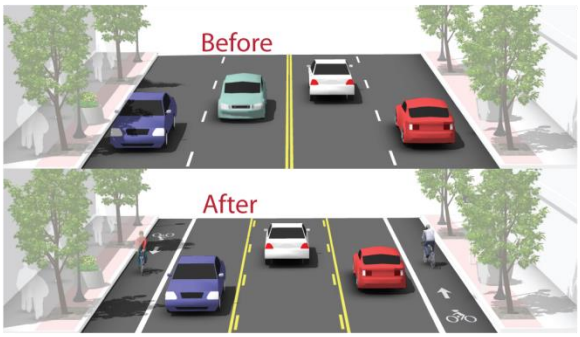
Diverters

A diverter diverts motor vehicle traffic from one street to another while allowing pedestrian and bicycle traffic to proceed normally. They are most common parallel to arterial streets where congestion may lead motorists to seek alternative routes on local streets through a neighborhood. Common on bike routes, diverters are the most intense traffic calming treatment applied and should be implemented only after study and community outreach.



Lane Narrowing

Lane narrowing utilizes roadway space that exceeds minimum standards to provide the needed space for bike lanes. Many roadways have existing travel lanes that are wider than those prescribed in local and national roadway design standards, or which are not marked.

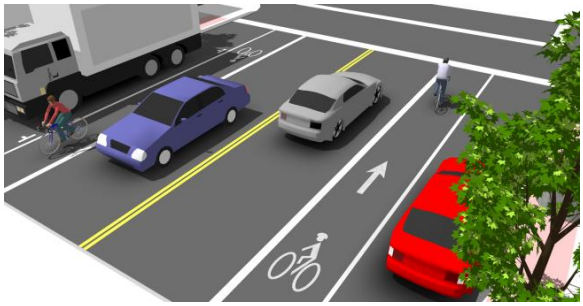


Road Diets

The removal of a single travel lane will generally provide sufficient space for bike lanes on both sides of a street. Streets with excess vehicle capacity provide opportunities for bike lane retrofit projects.

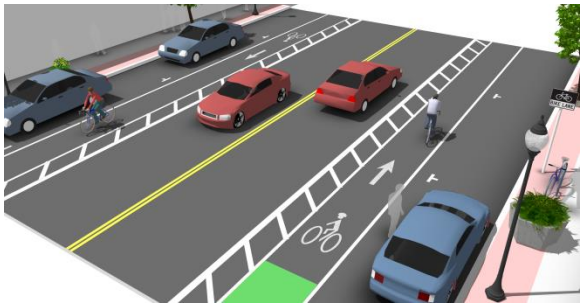
Bicycle Facilities

Bicycle facility selection depends on a variety of factors including motor vehicle speeds and volumes, topography, adjacent land use, available right of way, and expected bicycle user types. Children and their parents/guardians may prefer lower stress bikeways such as bicycle boulevards, buffered bike lanes, cycle tracks, and multi-use paths compared to shared roadways without traffic calming features or conventional bike lanes



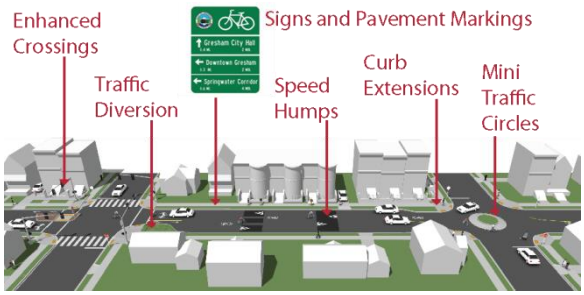
Bike Lanes

Bicycle lanes designate an exclusive space for bicyclists with pavement markings and signage. The bicycle lane is located adjacent to motor vehicle travel lanes and bicyclists ride in the same direction as motor vehicle traffic. Bicycle lanes are typically on the right side of the street (on a two-way street), between the adjacent travel lane and curb, road edge or parking lane.



Buffered Bike Lanes

Buffered bicycle lanes are conventional bicycle lanes paired with a designated buffer space, separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.



Bicycle Boulevard

Bicycle boulevards are low-volume, low-speed streets modified to enhance bicyclist comfort by using treatments such as signage, pavement markings, traffic calming and/or traffic reduction, and intersection modifications. These treatments allow through movements of bicyclists while discouraging similar through-trips by non-local motorized traffic.

Streets should contain a minimum of three traffic calming enhancements if they are to be considered bicycle boulevards.

Additional Tools

Painted Intersections

Painted intersections, sometimes called street murals or "Intersection Repair" are volunteer driven efforts to transform an intersection into a plaza like community space by painting artistic imagery on the street.

Painted intersections generally require permission from the transportation department and majority support from the adjacent neighbors.

Shared Use Paths

Shared Use paths may be used by pedestrians, skaters, wheelchair users, joggers and other non-motorized users. These facilities are frequently found in parks, or as a neighborhood cut-through to shorten connections and offer an alternative to busy streets.

Warning Signs

Warning signs call attention to unexpected conditions on or adjacent to a street or bicycle facility.

Around schools, the School Crossing Assembly is the most common type of warning sign, used to warn drivers to expect and anticipate bicycle crossing activity.

Overpass

Overpasses provide critical non-motorized system links by joining areas separated by barriers such as deep ravines, waterways or major streets or freeways. A Crime Prevention Through Environmental Design (CPTED) lens should be followed when designing the underpass.

Underpass

Underpasses provide critical non-motorized system links by joining areas separated by barriers such as railroads and highway corridors. In most cases, these structures are built in response to user demand for safe crossings where they previously did not exist.

Safe Routes to School Plan

Appendix B: SRTS Programs Glossary

August 2014

alta PLANNING + DESIGN

community design group

MINNESOTA DEPARTMENT OF TRANSPORTATION

Appendix B: Recommended Programs Glossary

The Safe Routes to School movement has been a leader in acknowledging that infrastructure changes are a necessary but insufficient condition for shifting school travel behavior. While engineering improvements like sidewalks, crosswalks, and bikeways are important, equally important are education programs to make sure children and families have basic safety skills, encouragement programs to highlight walking and biking to school as fun and normal, enforcement against unsafe and illegal motorist behavior, and evaluation of the impact of investments and non-infrastructure efforts.

The following programs were identified as priorities for Austin elementary, middle, and intermediate schools during the SRTS planning process. These programs were selected to meet the interest and needs of the school community in the near term (1 to 5 years). Some of the programs are recommended to serve all schools and can be implemented in tandem, while others are geared towards specific issues and needs of the individual campus and school community. The SRTS plan contains information for each school and anticipated timelines for beginning implementation.

Contents:

Middle school students are a great audience for a Safe Routes to School program, because they have more developed cognitive ability than elementary school students, allowing them to judge unsafe conditions and understand why they need to exhibit safe behavior. Children this age are also likely to have a more comprehensive understanding of road rules and have the peripheral vision development to judge the speed of cars. Further, middle school students have an expanded awareness of social, cultural, and environmental issues and are more likely to understand the values of walking and bicycling. Planning educational and encouragement activities for middle school students presents opportunities and challenges. This age group is seeking and gaining more independence, but is vulnerable to self-consciousness and peer pressure. Bicycling and walking are viable options for many children this age and may help provide their sought-after independence, but children may perceive walking and bicycling to school as "uncool" or they may be concerned about gaining peer approval. The success of educational and encouragement programs lies in providing middle school students with opportunities for self-expression, hands-on learning, and playing a role in the implementation of their own Safe Routes to School programs. Students can design and create outreach materials, coordinate logistics for assemblies or publicity campaigns, and use technology and other skills to understand and share their understanding of the value of walking and bicycling.

This programs glossary contains a summary description of the each recommended program. For each program concept, the summary includes the primary intended outcomes, potential lead and partners, a recommended timeframe for implementation, resources and sample programs, and a short description.

Encouragement

International Walk and Bike to School Day

Primary Outcomes	Increased walking and bicycling; youth empowerment
Potential Lead	School Administrators in partnership with Vision 2020 volunteers and Mower County Ship staff
Potential Partners	Austin Public Schools; school parent groups; Austin Police Department; students; local businesses; local celebrities (ex. Mayor)
Recommended Timeframe	Twice a year - Annually on or around International Walk and Bike to School Day in October and in May around Bike to School Day.
Planning Resources	International Walk to School: http://www.iwalktoschool.org/ Walk Bike to School: http://www.walkbiketoschool.org/
Sample Program	Oregon Safe Routes to School: http://www.walknbike.org/schools

Walk and Bike to School Day is an international event that attracts millions of participants in over 30 countries in October. 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 can be held for one or more days.

International Walk to School Day draws large numbers of students and families to walk to school

Walk and Bike to School Day events are often promoted through press releases, backpack/folder/electronic mail, newsletter articles, and posters. Students often earn incentives for participating, such as healthy snacks, buttons, or stickers.

The event planning team can work with local businesses, such as grocery stores, to provide donations to students participating in the events. There can also be a celebration at school following the morning event, such as an awards ceremony, lunch time party, or a raffle. This can require substantial coordination time, as well as time to develop promotional materials and secure donations. Walk and Bike to school can be combined with other programs such as Park and Walk for those students that live too far from school to walk or bike.

Walking School Bus or Bike Train

Primary Outcomes	Improved walking safety behavior; youth empowerment
Potential Lead	Parents or other school volunteers , school parent group
Potential Partners	Principal and Staff, Austin Public Schools; City of Austin; law enforcement ; SHIP staff
Recommended Timeframe	Can be first associated with an event and build to weekly and daily depending on interest and volunteer capacity.
Planning Resources	The Walking School Bus Guide: Combining Safety, Fun, and the Walk to School (SafeRoutesInfo.org) http://guide.saferoutesinfo.org/walking_school_bus/index.cfm
Sample Programs	Portland, Oregon http://www.biketrainpdx.org/ http://www.portlandoregon.gov/transportation/article/232532

A walking school bus involves a group of children walking to school with one or more adults. The "bus" follows the same route every time and picks up children from their homes at designated times. Children like the walking school bus because it gives them active social time before the school day begins (or, as one participating child put it, "it's like recess before school!"). Adults like the walking school bus because they feel more comfortable when there are trained, trustworthy adults escorting their children to school. Teachers and principals like the walking school bus because it helps kids arrive ready to concentrate on school.

A bicycle "train" is very similar to a walking school bus; groups of students accompanied by adults bicycle together on a pre-planned route to school. They may operate daily, weekly or monthly. Bike trains also help address parents' concerns about traffic and personal safety while providing students a chance to socialize, be active, and develop riding skills while under adult supervision.

A bike train can cover longer distances than students walking and they enjoy riding with friends.

Benefits

- Directly addresses two of the most common parental fears regarding walking or bicycling to school: stranger danger and traffic safety
- Highly convenient for parents and fun for students
- Scalable program that can increase in frequency and/or coverage as participation grows
- Helps develop bonds among classmates and neighbors, which can extend beyond the school day

Getting started

A walking school bus can be an informal effort begun by a few parents in one neighborhood. For a school wide program, however, it is important to designate a coordinator. In some cases a dedicated volunteer coordinator can be successful, but schools may want this to be a paid position to ensure consistency and reliability. The walking school bus coordinator can begin by assessing both resources (such as parent volunteers) and interest. A school-wide survey (paper and/or electronic) distributed to parents can help to identify interested households and volunteers.

Timing/Frequency

Ideally, a walking school bus or bike train program should run every day so families can count on it. However, it is possible to start small by selecting one or two days per week, and/or by targeting specific neighborhoods (e.g. a housing development close to the school) as a way to begin developing the program. You might even start with a special one-time walking school bus, such as for International Walk (and Roll) to School day in October. Some programs operate in the morning only, since children have after-school programs or go somewhere other than their home after school, or may not have a parent waiting for them at home.

Designating Routes and Stops

Walking routes should be sited on streets with complete pedestrian facilities, prioritizing safe crossings and lower traffic speeds and volumes, as well as low crime streets.

In many cases, these streets will also provide the best route for bicycle trains, although coordinators should also identify dedicated bicycle facilities that may lead to the school. Stops may either be at each child's house (which is more convenient for parents but may take longer) or at gathering points (e.g. one meeting place per block, as well as gathering spaces at parks). Including at least one "stop" with parking facilities is also a good way to increase participation for families who may live far from the school but can drop off children to join the walk. Finalized routes and stop locations should be mapped out for parent and volunteer reference.

Park and Walk Program

Primary Outcomes	Increase bicycling and walking to school; reduced traffic congestion around schools
Potential Lead	School Administrator and staff or parent volunteers
Potential Partners	Palmer Bus Company, City of Austin, school staff, parent volunteers, local businesses and civic organizations
Recommended Timeframe	To begin, coordinate with walk and bike to school days. As interest grows, As often as capacity allows, preferably on a regular basis and as part of other walk and bike to school activities
Planning Resources	National Center for Safe Routes to School Guide: http://guide.saferoutesinfo.org/encouragement/park_and_walk.cfm Park and Walk Guide (United Kingdom) http://www.buckscc.gov.uk/bcc/transport/park_walk.page The Walking School Bus Guide: Combining Safety, Fun, and the Walk to School (SafeRoutesInfo.org) http://guide.saferoutesinfo.org/walking_school_bus/index.cfm
Sample Program	Arborfield, England: http://guide.saferoutesinfo.org/encouragement/park_and_walk.cfm

This program is designed to encourage families to park several blocks from school and walk the rest of the way. 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. It also helps reduce traffic congestion at the school.

A Park and Walk program engages students who live too far to walk or bike the whole distance to school

This program can also be developed to include students who are typically bussed. School administration can work with local property owners to receive permission to use the parking lots for the park and walk and recruit volunteers/parents to walk with the children. This process may require substantial coordination/recruitment time and a variety of promotional materials to increase participation.

Benefits

- Increases physical activity, which can combat health problems
- Reduces traffic congestion around the school's pick-up and drop-off areas
- Improves air quality
- Alerts parents to potential walking and biking routes available in their area
- Creates a supportive, encouraging environment for kids who do not regularly walk or bike to school

Walking school buses can be used in combination with park and walk programs to allow students to walk to school with their peers if parents are unable to walk with their children and have concerns about them walking to school alone.

Trip/Mileage Tracking Program

Primary Outcomes	Increased walking, bicycling, transit use, and/or carpooling; youth empowerment
Potential Lead	School Administration and teachers
Potential Partners	Austin Public Schools; parents, Vision 2020 volunteers, SHIP staff, local; local businesses
Recommended Timeframe	Annually, possibly in conjunction with International Walk and Bike to School Day or Bike Month
Planning Resources	National Center for Safe Routes to School Guide: http://guide.saferoutesinfo.org/encouragement/mileage_clubs_and_contests.cfm Fire Up Your Feet Minnesota: http://mn.fireupyourfeet.org/about/fire-your-feet-minnesota MnDOT Encouragement Programs: Trip Tracking and Competitions webinar http://www.dot.state.mn.us/saferoutes/toolkit.html
Sample Program	Marin County (CA) Pollution Punchcard: http://www.saferoutestoschools.org/SR2Simages/Pollution-Guide-09-2.pdf

A trip or mileage tracking program can be implemented as an opt-in club, a classroom activity, or a collaborative school-wide event. Students track trips or mileage made by walking, bicycling, transit, and/or carpools with some type of goal or culminating celebration or reward. Students can work towards a certain milestone to earn a prize or raffle entry, or they can track their individual or group progress as miles across their town, the state of Minnesota, or the United States. The program should encourage all students to participate, regardless of where they live; those who live too far to walk can participate in a "park and walk" activity or students can be accommodated in PE class or during recess. Example programs include Pollution Punchcards or Walk Across America.

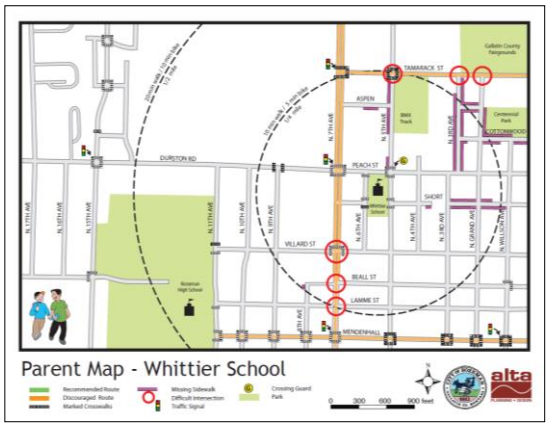
Simple punch cards can be used to track trips

Encouragement

Walk and Bike to School Route Maps

Primary Outcome	Improved walking and bicycling safety, knowledge of supportive infrastructure
Potential Lead	Austin Public Schools, City of Austin
Potential Partners	Individual school administrators; teachers and crossing guards, parents, students
Recommended Timeframe	Distribute when students and families are adjusting to new habits, e.g., back-to-school, following winter/spring break, as weather gets warmer. Revise and redistribute annually, if possible.
Planning Resources	National Center for Safe Routes to School's Map-a-Route Tool: http://maps.walkbiketoschool.org/
Sample Maps	Bozeman, MT: http://www.bozeman.k12.mt.us/schools/safe_routes/ Santa Clarita, CA: http://www.santa-clarita.com/index.aspx?page=177 Rochester, NY: http://www.walkinginfo.org/pedsafe/casestudy.cfm?CS_NUM=33

Walk and Bike to School Maps, sometimes called Suggested Route to School maps, help families choose the best route for walking or biking to school. Maps show stop signs, signals, crosswalks, sidewalks, bikeways, paths/trails, school entrances, bike parking, and/or crossing guard locations around a school. Maps may also show transit routes and stops, school enrollment areas, pick-up/drop-off zones, and important destinations, such as community centers and parks. Some less objective elements to consider include recommended routes, good walking/biking routes, and hazardous locations.



Walk and Bike to School Maps show the safest streets and crossings for getting to school.

In 2014, some initial suggested walking route maps were completed as part of the SRTS Plan Process. These can be used as a starting point for additional updated maps over time. The team leading the mapping effort should decide in advance whether the maps will be distributed electronically or in paper form, as this can inform how the map is produced.

Maps may be produced using mapping or drawing technologies, such as GIS or Adobe Illustrator, but can also be as simple as hand drawn maps or marked up Google maps. Students may also be engaged in the making of maps through classroom or after school activities. The City of Austin can take leadership in developing maps that serve all three schools. Vision 2020 volunteers, parents and school administers should collaborate on development of suggested routes and the addition of information that supports other education and encouragement programs.

School Safety Campaign

Primary Outcomes	Will depend on campaign focus, but may include improved walking/biking safety behavior, improved driving safety behavior, and/or youth empowerment
Potential Lead	City of Austin Police Department; Austin Public Schools
Potential Partners	Teachers/administrators/staff; PTO/parents; City of Austin Public Works; local groups/advocates/volunteers; local businesses
Recommended Timeframe	Annual or semi-annual; when habits, traffic patterns, or seasons change: upon returning to school in the fall, when the weather gets warmer, when daylight saving time ends
Planning Resources	City of Portland: http://www.portlandoregon.gov/transportation/article/272948
Sample Programs	San Jose (CA) Street Smarts Program: http://www.getstreetsmarts.org/ MnDOT Share the Road (broad community focus): http://www.dot.state.mn.us/sharetheroad/

A safety campaign is an effective way to build awareness around students walking and biking to school and to encourage safe driving behavior among parents and passersby. A School Traffic Safety Campaign can use media at or near schools—such as posters, business window stickers, yard signs, and/or street banners—to remind drivers to slow down and use caution in school zones. This type of campaign can also address other specific hazards or behaviors, such as walking or bicycling to school, school bus safety, and/or parent drop-off and pick-up behavior.

A School Traffic Safety Campaign can use media at or near schools to remind drivers use caution in school zones

Campaigns typically have significant costs to produce promotional materials and collateral, though these items can often be covered through grants. Advertising can be an important part of safety campaigns also to inform the community and expand the reach of the messaging. A collaborative effort between the police department, the district and Vision 2020 can pool resources and expand the reach of the campaign.

A campaign that coordinates with all schools in the area can be very effective. The location of the three schools in one area with shared transportation facilities provides a unique opportunity to support mentorship and leadership options for the high school students. School administrators can work together to develop a comprehensive campaign that targets the three age groups, their families and the broader community.

Classroom Lessons (Minnesota Walk! Bike! Fun! Curriculum)

Primary Outcomes	Improved walking and bicycling safety behavior; youth empowerment
Potential Lead	Teacher/administrators
Potential Partners	Austin Public Schools; parent groups; SHIP staff (Public Health), Bicycle Alliance of Minnesota
Recommended Timeframe	Regularly integrated as viable. Safety training and skills elements twice per year.
Planning Resources	Minnesota Walk! Bike! Fun! Curriculum http://www.dot.state.mn.us/saferoutes/ http://www.bikemn.org/education/srts-education-curriculum
Sample Programs	Oregon Safe Routes to School: http://walknbike.org/pedestrian-safety/ National Highway Traffic Safety Administration: http://www.nhtsa.gov/ChildPedestrianSafetyCurriculum

A variety of existing in-classroom lessons and skills training activities are available to help teach students about walking, bicycling, health, and traffic safety.

Benefits

- One of the quickest and easiest ways to ensure all children receive important information on the safety basics and benefits of walking and bicycling
- Flexible activities can accommodate a variety of time/ space constraints and grade levels
- Helps institutionalize pedestrian and bicycle safety as a priority life skill (similar to home economics or driver education)

Pedestrian safety training teaches basic lessons such as, "look left, right, and left again"

In-class lessons introduce the topic of pedestrian and bicycle safety to children, including what types of situations they may encounter on the road, how to follow street signs, and how to interact with drivers. Rhymes, songs, and videos can be used to help children remember how to walk and cross streets safely.

The new **Minnesota Walk! Bike! Fun! Pedestrian and Bicycle Safety Curriculum** is a two-part program designed specifically for Minnesota's schools and is structured to meet Minnesota education standards. The Minnesota Walk! Bike! Fun! Pedestrian and Bicycle Safety Curriculum was developed by the Bicycle Alliance of Minnesota through in collaboration with the Minnesota Department of Transportation the Center for Prevention at Blue Cross and Blue Shield of Minnesota.

The curriculum was designed to help children ages five to thirteen learn traffic rules and regulations, the potential hazards to traveling, and handling skills needed to bike and walk effectively, appropriately and safely through their community. This curriculum is free for anyone to download and use.

Bike Rodeo

Primary Outcomes	Improved bicycling safety behavior; youth empowerment
Potential Lead	YMCA of Austin, City of Austin Police Department,
Potential Partners	Vision 2020 Bike, Walk and Trail Committee; local advocates and volunteers, SHIP staff; local businesses
Recommended Timeframe	This is an existing program in Austin that typically present a rodeo in the spring or early summer. To expand, consider coordinating with other event and providing skills training twice per year.
Planning Resources	Fire Up Your Feet Minnesota: http://mn.fireupyourfeet.org/resources/bike-rodeos Minnesota Safety Council: http://www.minnesotasafetycouncil.org/bicycle/programs/rodeo/intro.cfm
Sample Program	Bicycle Alliance of Minnesota: http://www.bikemn.org/education/courses/kids-classes

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.

Bicycle rodeos help children learn skills because they allow the children to continue practicing until they have mastered the station, in turn instilling a sense of confidence. By providing a hands-on approach to teaching, children are more likely to retain the information because they are engaged in the activity with the instructor, thus more aptly preparing them for riding on the road when they are ready to do so.

If enough instructors are available for the event, children that have demonstrated a mastery of bike handling skills and hazard avoidance drills can participate in an on-street portion to experience real situations. This can take place on low-volume roadways or even a portion of the street that is closed to traffic depending on the surrounding area. Austin has an annual bicycle safety event that includes a rodeo which could be expanded to include an an onroad training portion. The SRTS program can build off this event by looking for opportunties to coordinate with other SRTS efforts such bike to school day in May and expanding to include a rodeo or other skills building event at the beginning of the school year.

Bicycle Rodeos are events that offer bicycle skills and safety stations for children - and sometimes parents

School/Community Communications

Primary Outcomes	This will depend on the communications; however, outcomes may include increased walking, bicycling, transit, and/or carpooling; improved walking, bicycling, and/or driving safety behavior; and health and/or environmental connections.
Potential Lead	Teachers, administrators, and/or staff, parents
Potential Partners	Austin Public Schools; SHIP staff; City of Austin
Recommended Timeframe	Ongoing throughout the school year
Getting Started	• Identify communication methods and where SRTS information can be added • Gather existing SRTS content from various resources and identify needs for Austin or school specific content • Develop preliminary schedule
Planning Resources	National Center for Safe Routes to School http://www.saferoutesinfo.org/
Sample Program	City of Portland, Safe Routes Newsletters http://www.portlandoregon.gov/transportation/45746

The strongest Safe Routes to School efforts are those that, over time, begin to make change to the culture of school transportation by normalizing walking and bicycling. One of the ways to help promote walking and bicycling as normal, everyday activities is to disseminate consistent, ongoing communications to the school community and greater community. The most effective way to reach parents and other community members is through existing communications, through media they already see, hear, and pay attention to. For this reason, it is recommended that each school identify the most used communication methods and take advantage of those existing channels for sharing Safe Routes to School facts, tips, education, and encouragement. Communication channels could include parent emails, backpack mail, newsletters, community papers, websites, blogs, or social media. For example, the school may choose to feature a Safe Routes to School corner or page on their existing website if it is well used by parents and updated often. It may be beneficial for Ellis and IJ Holton to coordinate communication about Safe Routes to School.

After School Program or Club

Primary Outcomes	Increased walking, bicycling, transit use, and/or carpooling; youth empowerment
Potential Lead	Individual school teachers, parents and students
Potential Partners	Austin Public Schools, local groups/advocates/volunteers; local businesses
Recommended Timeframe	Weekly or in time segments depending on interest and capacity
Sample Program	Community Cycling Center in Portland Oregon http://www.communitycyclingcenter.org/index.php/programs-for-youth/bike-club/

An after-school club can take many forms and address many different themes, including bike repair, sport cycling, environmental issues (green teams), and community/civic engagement. After school programs can engage students in developing outreach materials and content for other programs such as walk to school day or a school safety campaign. Older students can mentor and provide support for younger students in bicycle maintenance and skills. SRTS themes can be built into existing program or can be developed as a stand-alone program. After school clubs could also coordinated with the Walk! Bike! Fun! Curriculum or other more formal training and skill building program. Coordinators can look for opportunities to engage local business and other resources to build the capacity of the club or program.

Learning bike repair skills encourages students and families to bicycle to school.

Bike Mechanic Training for Intermediate and Middle School

Learning bike repair skills can help build confidence in bicycling as transportation option for students and families. The knowledge to fix their bicycle empowers students to take charge of their own transportation. A bicycle mechanic training can be made available to students as a one-time "basics" lesson as part of another club or as a multi-session course. This training can be combined with an earn-a-bike program, bike rodeo, or bicycle safety/skills trainings.

The organizing team will need to secure a venue where students can learn skills and practice, such as classrooms not being utilized after school hours or at local bicycle co-ops. Necessary equipment, such as repair tools, can be stored at the location and secured through donations, such as by bicycle shops that have old or unused products. The classes can be taught by a wide range of individuals, ranging from local experts to enthusiastic parents. Depending on the person teaching the class, time to prepare curriculum may be required, in addition to time for marketing and scheduling.

School Assemblies

Primary Outcomes	Improving walking and bicycling skills, increased walking, bicycling, transit use, and/or carpooling; youth empowerment
Potential Lead	School Administrators, Individual school teachers
Potential Partners	Austin Public Schools, local groups/advocates/volunteers; local businesses; Bicycle Alliance of Minnesota, SHIP staff
Recommended Timeframe	Twice per year or more often depending on interest and capacity
Sample Program	Big Tadoo Puppet Crew https://www.facebook.com/BigTadooPuppetCrew

Assemblies grab students' attention through fun, interactive activities, such as games, skits, or demonstrations. Safe Routes to School assemblies often cover pedestrian and/or bicycle safety but can also address bicycling skills, the environment, health, and other topics. A game show covering safety questions makes a good format for a smaller group such as a single classroom.

Assemblies can be a good way to get information to students while limiting classroom disruptions and maximizing reach and resources.

Assemblies provide a unique opportunity for the school community (teachers and students) to get information about walking and biking to school together

Enforcement

Digital Speed Feedback Signs

Primary Outcomes	Improved driving safety behavior
Potential Lead	City of Austin Police Department, City of Austin Public Works
Potential Partners	Austin Public Schools;
Recommended Timeframe	Ongoing, additional enforcement periodically perhaps quarterly, beginning at the start of the school year
Planning Resources	Safe Routes to School Online Guide: http://guide.saferoutesinfo.org/enforcement/index.cfm
Sample Programs	Charles County, MD: http://www.ccso.us/index.php?option=com_content&task=view&id=614 Chicago, IL: http://www.cityofchicago.org/city/en/depts/cdot/provdrs/ped/svcs/crosswalk_enforcementinitiatives.html

Enforcement tools are aimed at ensuring compliance with traffic and parking laws in school zones. Enforcement activities help to reduce common poor driving behavior, such as speeding, failing to yield to pedestrians, turning illegally, parking illegally, and other violations. Law enforcement actions include school zone speeding enforcement, crosswalk stings, and other enforcement activities.

Fast-moving traffic is a major deterrent to children and parents walking and biking to school, especially where crossings of arterial roadways are required or where sidewalks are discontinuous. In known speeding problem areas, radar detection can help reduce speeds and enforce speed limit violations. Two common strategies that do not require active police enforcement (i.e., manned patrol vehicles) are setting up mobile radar trailers that display approaching motorists' speed next to a speed limit sign, and loaning radar guns to local residents or school officials in order to document and self-report speed limit violators.

Law enforcement efforts near schools, such as speed feedback signs, complement education and encouragement activities

Higher speeds are a consistent issue along some roadways that are main access points to schools - roadway examples include Oakland Place SE; 4th Street ; 12 Street SW. There are many drivers that simply don't realize how fast they are driving near the school. These digital signs will give drivers immediate feedback as they enter the school zone.

Benefits

- Provides 'hard' data to assist local traffic enforcement and roadway engineering services
- Alerts motorists, who may otherwise not be looking at their speedometer, to their actual driving speeds
- Low-cost, high yield activity to improve both traffic safety and education
- Radar trailers or guns can be shared among several schools

Radar Trailers/Feedback Signs

Speed radar trailers can be used as both an educational and enforcement tool. By itself, the unmanned trailer serves as effective education to motorists about their current speed compared to the speed limit. As an alternative enforcement measure, the police department may choose to station an officer near the trailer to issue citations to motorists exceeding the speed limit.

A permanent speed radar sign can be used to display approaching vehicle speeds and speed limits on roadways approaching the school site. The unit is a fixed speed limit sign with built-in radar display unit that operates similar to a radar trailer. In order to maximize effectiveness for school settings, the radar display unit should be set to only activate during school commute hours. Roadways approaching the school site are the most appropriate location to display speeds, instead of streets along the school frontage that will likely have lower speeds due to pick-up/drop-off traffic.