School Walk and Bike Routes:
A Guide for Planning and Improving Walk and Bike to School Options for Students

February 2015

Photo by Don Willot

Washington State
Department of Transportation

WASHINGTON
Traffic Safety
COMMISSION

SUPERINTENDENT OF PUBLIC INSTRUCTION
WASHINGTON

Washington State Department of
Health

15-01-0048

Acknowledgments

The School Walk and Bike Routes: A Guide for Planning and Improving Walk and Bike to School Options for Students 2014 technical update has been completed by:

Allan J Jones, Director of Pupil Transportation, Office of the Superintendent of Public Instruction

James Kissee, Physical Activity Specialist, Washington State Department of Health

MJ Haught, Program Manager, Washington Traffic Safety Commission

Blake Trask, Policy Director, Washington Bikes

Seth Schromen-Wawrin, Safe Routes to School Program Manager, Washington Bikes

Jennifer Cole, Safe Routes to School Program Director, Feet First

Ed Spilker, Transportation Planner, Washington State Department of Transportation

Previous Contributors Include:

Ruth Abad, Washington State Department of Health

Grant Clark, Public Awareness Coordinator, Washington Association of Sheriffs and Police Chiefs

Charlotte Claybrooke, Safe Routes to School Coordinator, Washington Department of Transportation

Skip Enes, Transportation Manager, Educational School District 112

Jennifer Fellinger, Communications Director, Association of Washington Principals

Dennis Grad, Transportation Director, Auburn School District

Daryl Grigsby, Public Works Director, City of Kirkland

Chris Hawkins, Thurston County Public Health and Social Services Department

David Hiller, Director, Cascade Bicycle Club

Brian Jones, Program Director, Washington Traffic Safety Commission

David Levinger, Mobility Education Foundation

Mary Sue Linville, Director of Risk Management, Washington Schools Risk Management Pool

Kathy McCormick, Senior Planner, Thurston Regional Planning Council

Barbara Mertens, Governmental Relations, Washington Association of School Administrators

Rick Mowlds, Traffic Engineer, Washington State Department of Transportation

Jim Seitz, Planning and Programming Supervisor, City of Renton

Jeff Shea, Traffic Engineer, Kitsap County

Fred Stanley, Past President, Washington Association for Pupil Transportation

Bethan Tuttle, WA Parent Teacher Association

Randy Wesselman, Transportation Engineering and Planning Manager, City of Olympia

Foreword

The Washington State Department of Transportation (WSDOT), in conjunction with the Washington Traffic Safety Commission (WTSC), Washington State Department of Health (DOH), and the Office of Superintendent of Public Instruction (OSPI), sponsored the update of this Guidebook. It is a technical update of the School Walk and Bike Routes: *A Guide for Planning and Improving Walk and Bike to School Options for Students, March 2010.*

This Guidebook:

- explains the laws and liabilities associated with school walk and bike route plans and student pedestrian and bicycle safety
- identifies potential partnerships and responsibilities for improving student pedestrian and bicycle safety
- suggests processes for developing and maintaining school walk and bike routes
- recommends procedures that can be used to create a pedestrian and/or bicycle safety improvement plan and begin implementing needed improvements including education, encouragement, enforcement and, engineering efforts.

The purpose of the guide is to provide technical assistance and support for student pedestrian and bicycle safety issues in compliance with related WACs and RCWs.

This Guidebook does not address public transit or school bus safety considerations. It is not intended as a comprehensive reference for all aspects of student pedestrian and bicycle safety, developing school walk routes, or improving school trip safety. Safe traffic control around schools involves a combined effort of engineering, education, encouragement, and enforcement. While this guide discusses student pedestrian safety education, it is not a curriculum. It highlights and briefly discusses key steps in the walk route development process and provides guidelines for decision-making wherever possible. However, it cannot replace professional judgment, nor can it fully educate school, transportation, enforcement, or other professionals on all aspects of this subject.

Table of Contents

Chapter One – Overview 1

We all have a role to play in the safety of children 1

Walking and biking have many benefits 1

This guide is a resource 1

What is a School Walk Route Plan? 1

What is required by law? 2

Who is responsible for developing school walk routes? 2

How are school walk routes & school bike routes developed? 3

What is the process for improving safety for walking and biking to school? 3

Isn't it easier just to bus all the students? 4

Chapter Two – Laws and Liabilities Associated with Student Pedestrian and Bicycle Safety and School Walk Routes 5

School Patrols and School Walk Routes 5

Responsibilities and Partnerships 6

Reducing Liability 6

The Safe Routes to School Program: State Support for Walking and Biking to School 7

Local Governments Responsibilities for School Pedestrian Safety 7

Student Transportation Services 7

Pedestrian Laws 8

School Bicycle Routes: 9

Bicycle Laws 9

School Speeding Zone Laws 9

Establishing Maximum Speed Limits on Non-Arterial Roadways 11

Washington Facts and Figures: Did You Know? 11

Chapter Three – The Partnership Approach to Student Pedestrian and Bicycle Safety 13

Partners and Responsibilities 13

Collaborative Partnerships Create Better Plans 13

Chapter Four – Steps for Developing and Maintaining School Walk Route and Bike Route Plans 19

Childhood Development 19

School Walk Route Map 20

School Bike Route Map 20

Steps to Develop a Walk Route Map 20

Step 1: Inventory Existing Walking Conditions 20

Step 2: Identify the Walk Routes 24

Step 3: Distribute the Maps 28

Step 4: Work with Community Partners to Make Safety Improvements..... 30

Step 5: Evaluate and Repeat 37

Appendix A – Ideas and Resources for Student Pedestrian and Bicycle Safety Improvements....39

Appendix B – Practical Tips for Opening a New School 43

Appendix C – Metropolitan and Regional Planning Organizations 45

Appendix D – Resources for Pedestrian and Bicycle Infrastructure Design Standards and Guides 47

Chapter One – Overview

We all have a role to play in the safety of children

The safety, health, and wellbeing of children are major concerns and responsibilities of all communities. Parents, school districts, local health departments, community organizations, city and county officials including planners, public works, and law enforcement all play a role in nurturing a new generation of safe and healthy children. This guide speaks to the many ways that community members work together to use walking and bicycling to school as a means to achieve that goal. It addresses education programs that teach safety, and encouragement programs that help students and families develop new walking and biking habits for a lifetime. Enforcement and engineering safety improvements near schools are included to help communities minimize risk to students as they travel to school.

Walking and biking has many benefits

Twenty to 30 percent of traffic around schools is generated by parents driving students to school. Fifty percent of students living within one-half mile of school are being driven to school, increasing the risk for vehicle/pedestrian collisions in and around schools. These numbers are consistent with the results of the 2009 National Household Travel Survey which indicates that half of all household trips are three miles or less and 28 percent are one mile or less. Making a change so that walking and biking are used more often for these short trips has the potential for many positive public health and environmental outcomes. By providing support for walking and bicycling to school, local communities and schools are improving health and safety for children.

They are also helping to achieve other important local and statewide goals such as reducing traffic congestion, greenhouse gas emissions, and other automobile related air, water, and noise pollution. By law, Washington State must reduce greenhouse gas emissions to 1990 levels by 2020, 25 percent below 1990 levels by 2035, and 50 percent below 1990 levels by 2050. Walking and biking to school are a part of a bigger effort to encourage all people to walk/bike for health and to reduce total vehicle miles traveled.

Physical activity, in combination with adequate nutrition, is positively linked with improved health, reduction in chronic diseases, readiness to learn, academic achievement, and a reduction in behavior problems. In Washington, rates of overweight and obesity among adolescents have not changed since 2002. According to the Healthy Youth Survey in 2012, approximately 10 percent were obese, which has not significantly changed over the past decade.

Students are not getting the 60 minutes of daily exercise recommended for long-term health. Walking and biking to school and in the community is a part of the solution. Getting children to walk and bike is also part of a national strategy to encourage active transportation among all ages and getting the recommended daily requirements of 60 minutes of physical activity each day.

This guide is a resource

This guide provides resources to help develop, maintain, and improve school walk routes and address bicycle and pedestrian safety. It provides guidance for schools and their communities to move toward more supportive environments for school children and their families to walk and bicycle.

What is a School Walk Route Plan?

A school walk route plan is usually a map or written document to inform parents and school children about walking routes within a one-mile walking distance of the school and a plan to make safety improvements as needed. It recommends a walking

route to school based on considerations of traffic patterns and existing traffic controls such as crosswalks, traffic lights, or school safety patrol posts. The chosen route should seek to limit the number of school zone crossings in a way that encourages students to cross streets in groups. In addition, it should seek those routes that provide the greatest physical separation between walking children and traffic, expose children to the lowest speeds and volumes of moving vehicles, and have the fewest number of road or rail crossings (Washington Administrative Code (WAC), 392-151-025).

As with any plan, once a school walk route plan is developed and distributed to all students and their parents, it must be routinely updated as conditions change. Development of the walk or bike route plan will help document needs and help improve conditions for walking and biking.

What is required by law?

School districts are required by Washington State regulations to have suggested walk route plans for every elementary school where children walk to school. The plan must cover a one mile walking distance from the school and the suggested route to school. The map must be distributed to all elementary school students and their parents. The WSDOT School Walk Route Plans in Washington website provides an inventory of approved Washington State school walk route maps.

School districts in Washington State are required to establish walk areas for all school buildings where students are enrolled, attend class, and transportation is provided for students within one-mile (WAC 392-141-340). This process involves the determination of funding eligibility for any student transportation services within the area with a walking distance of less than one mile and should include as many community partners as possible.

During the 2009 session, the Washington State legislature passed RCW 47.04.300 that formalized the Safe Routes to School Program. The program provides funding for local communities to increase the number of children walking and biking to school safely.

There are state laws regarding the designation of school zones and crosswalks, as well as vehicle, bicycle, and pedestrian actions near schools. State law also regulates local governments to provide provisions for considering sidewalks and other planning features that improve safe walking conditions for students who walk to and from school in new subdivisions and short plats (RCW 58.17.060).

Chapter two, “Laws and Liability Associated with Student Pedestrian, and Bicycle Safety, and School Walk Routes, and School Walk Areas,” summarizes Washington State laws and regulations on walk routes, walk areas, school zone safety, bicycle safety, crosswalk rules, and local governments’ responsibilities. The complete text of the relevant Washington Administrative Code (WAC) and Revised Code of Washington (RCW) references can be found on the Washington State Legislature search website at http://search.leg.wa.gov/pub/textsearch/.

Who is responsible for developing school walk routes?

In Washington State, school districts are responsible for developing a walking route for each elementary school in their district where children walk to and from school. Walk routes are often developed as part of a comprehensive student pedestrian safety plan. School bicycle routes are not required but are useful components of a bicycle safety program. Both walk and bike routes are best addressed by building community partnerships between school administrators and local public works agencies, local law enforcement agencies, legislative representatives, school-parent organizations, parents, and students. Working collaboratively with community partners promotes the use of a variety of solutions to address safety concerns.

Chapter three, "The Partnership Approach to Student Pedestrian and Bicycle Safety," is designed to help school districts identify community partners. It outlines responsibilities and suggests ways to work together.

How are school walk routes and school bike routes developed?

Once responsibility for developing walk or bike routes is assigned, this guide provides a step-by-step process that can assist in walk or bike route development:

- The process starts with a detailed base map defining the area within a one-mile walking distance of the attendance area for each school.
- Next, existing conditions and traffic characteristics are inventoried.
- Then a walking or biking route is designed, keeping in mind guidelines designed to provide the greatest physical separation between walking and biking children and traffic, expose children to the lowest speeds and volumes of moving vehicles, and have the fewest number of road or rail crossings. Since the objective is to minimize roadside and roadway crossing conflicts to the extent practical, this may mean in some cases that a child may need to walk or bike a little farther in order to follow the planned route.
- Once the best possible route has been determined, a walk or bike route map—one that is easily understood and conveys the essential information of the route—is developed and distributed to parents and students. The WSDOT School Walk Route Plans website provides an inventory of approved Washington State walk route maps.
- No school walk or bike route is ever completely free from safety risks. However, recognizing and evaluating a concern is the first step in solving it.
- Evaluating the route is an essential final step in the process. Once developed, walk routes need to be updated and distributed each year.

The current student transportation funding system provides funding for school districts to provide school bus service where no safe walk route of less than one road-mile exists. A school district wanting to qualify for and receive this funding needs to regularly review and re-evaluate walk areas and walk route maps for hazards.

The steps for developing a walk or bike route and the guidelines for choosing the best route are discussed in Chapter four, "Ten Steps for Developing and Maintaining School Walk Routes and Bike Route Planning."

What is the process for improving safety for walking and biking to school?

By using the four Es—education, encouragement, enforcement, and engineering tools—many walk and bike route safety concerns will be successfully addressed. School administrators can work with community partners to discuss concerns, identify possible solutions, and reach consensus on project priority.

Chapter five, "Development and Implementation of a Student Pedestrian and Bicycle Safety Improvement Plan," provides a five step process for developing a pedestrian and safety implementation plan by using a combination of all four Es to improve walking, biking, and driving behaviors along the walk routes. It includes a list of possible education, encouragement, enforcement, and engineering improvements and gives examples of how each of the four Es were successfully applied in one community.

There is support for student pedestrian and bicycle safety improvements in our communities, our state, and nationally. Appendix A, "Ideas and Resources for Student Pedestrian and Bicycle Safety Improvements," lists organizations schools can turn to for help.

Isn't it easier just to bus all the students?

In the past, the state funded transportation for students whose walk routes had "hazardous walking conditions" as identified under specific criteria. In 1996, the State Legislature changed the allocation formula for student transportation funding, basing it on the number of students in kindergarten through fifth grade living within a one-mile radius of their school of enrollment. While these funds can be used for improvements such as warning signs, sidewalks, overpasses, adult crossing guards, and bike lanes, most districts have been spending this money to cover the cost of required bus transportation.

The current transportation allocation formula provides funding for students in areas that are without safe walking routes to school of less than one mile.

Currently, some schools elect to bus the entire student population, and sometimes conditions call for this. However, there are many benefits to identifying and funding school walk and bike route safety improvements:

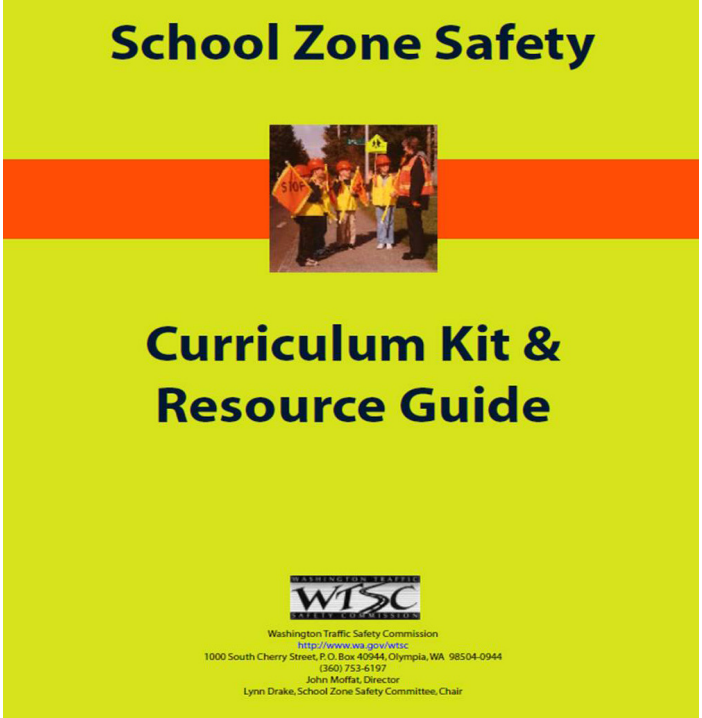
- Over time, such improvements can save tax dollars.
- Improvements provide a safer environment for the public—24 hours a day, not just before and after school.
- Improvements that allow children to walk or bike to school instead of riding a bus or being driven, also provide students some daily exercise that can be beneficial to the overall health of these children.
- Walking and biking to school reduces the amount of greenhouse gas emissions released as it reduces the number of children that are driven to school.
- By promoting walking and biking to school through the development of a good student pedestrian and bicycle safety program, you are promoting an activity that is fun, healthy, non-polluting, friendly, educational, and economical.

Chapter Two

Laws and Liabilities Associated with Student Pedestrian and Bicycle Safety and School Walk Routes

There are many laws and regulations that pertain to student pedestrian and bicycle safety in general, and school walk routes in particular. Laws covering school safety patrols, student transportation funding, pedestrians, bicyclists, and the ways that local governments regulate new developments, all can affect school walk routes. This chapter discusses the laws and regulations.

A full text of these laws can be found on the Washington State Legislature search website at http://search.leg.wa.gov/pub/textsearch using the referenced title, chapter, and section numbers that are cited in the descriptions below.



School Patrols and School Walk Routes

The primary state law regarding student pedestrian safety is contained in the Revised Code of Washington (RCW) 46.61.385, "School Patrol." This gives school districts basic authorization to set up student and/or adult safety patrols. It generally discusses their duties and the duty of drivers to stop for patrols. Taken with the associated regulations, this law encourages the use of school safety patrols to help students cross roadways adjacent to the school and at other crossings as identified in the suggested school walk route plans. Additional information about crossing guards, which are typically adults and student safety patrols, can be found in the "School Zone Safety: Curriculum Kit and Resource Guide". Free copies of the guide can be ordered from the Washington State Department of Printing website.

School Walk Routes

The Washington Administrative Code (WAC) 392-151, Traffic Safety School Safety Patrols, provides the details of organizing and training safety patrols and currently requires school districts to develop school walk routes for each elementary school. The specific regulation is found in the Washington Administrative Code (WAC), 392-151-025, "Route Plans," as listed below.

WAC 392-151-025 Route Plans.

Suggested route plans shall be developed for each elementary school that has students who walk to and from school. It shall recommend school routes based on considerations of traffic patterns, existing traffic controls, and other crossing protection aids such as school patrols. These route plans shall limit the number of school crossings so that students move through the crossings in groups, allowing only one entrance-exit from each block to and from school. The route to school plan shall be distributed to all students with instructions that it be taken home and discussed with the parents.

The above regulation mandates the preparation of "suggested route plans" and the distribution of a recommended school route to all elementary school students. Although this regulation may raise questions concerning responsibility for preparing the plans or the potential liability of the school district, the intent of the WAC is to see that students and their parents have the recommended route identified for them, which can provide the following benefits:

- Because a route plan limits the number of road crossings, the plan will encourage students to cross in groups, providing greater safety and limiting the number of crossing guards or traffic signals needed.

- Developing a recommended route to school allows the school to suggest a route that seeks the greatest physical separation between walking children and traffic and exposes the children to the lowest speeds and volumes of traffic—considerations that children may not make if left to choose their own route to school.
- The process of developing and maintaining school walk routes allows a community to identify and address pedestrian safety concerns in an organized manner.

As of September 1, 2013, the student transportation funding allocation system requires the identification of walk areas around each school where a safe route exists with a walking distance of less than one mile.

Responsibilities and Partnerships

The issue of responsibility for developing school walk route plans is not directly addressed by state law, except as it pertains to school safety patrols. WAC 392-151-015, "Administration and Support," places the superintendent or chief administrative officer of the school district in the role of being responsible for determining policy and operation for the school patrol. Since placement of school patrol posts and school walk routes are closely intertwined, it would follow that the superintendent's school patrol policy would include policies regarding school walk routes. The same regulation encourages principals to oversee the individual school's plan and school administrators, local traffic control agencies, teachers, parents, and students to work together. The text of WAC 392-151-015 is below:

WAC 392-151-015 Administration and Support.

The superintendent or chief administrative officer of the school district shall assume the leadership and be ultimately responsible for determining school patrol policy and operations. The principal of each school shall provide leadership in developing good relationships among teachers, student body, and members of the school patrol in matters of selecting, instructing, and giving immediate supervision to school patrol members and carrying out administrative details. Administration of the actual operation of a school patrol may be delegated to a school employee or a safety committee. The approval, understanding, support, and encouragement of school administrators, local traffic control agencies, teachers, parents, and students is essential in providing an effective school safety patrol.

The state regulations recommend forming a Safety Advisory Committee to aid districts in developing school safety patrol policies and walk routes. It suggests that such a committee include various community partners. Working collaboratively to address a comprehensive student pedestrian program is so important that Chapter three, "The Partnership Approach to Student Pedestrian and Bicycle Safety," is dedicated to this issue. The regulation is listed below:

WAC 392-151-017 Safety Advisory Committee-Selection.

Selection of a safety advisory committee is important in the development and support of school patrol policy and in the development of safe route to school plans. Members may be selected from the following areas:

(1) School administration;

(2) Law enforcement;

(3) Traffic engineering; and

(4) School-parent organization.

Reducing Liability

The question of liability is frequently raised in regard to walk routes. In reality, the surest method to reduce liability is by establishing policy for walk route development and maintenance and by conducting periodic reviews of the suggested walk routes and walk areas.

The guidelines presented here, while not having the force of a regulation, provide suggested procedures which, if properly followed, would result in reasonable policies governing school walk routes

Photo by Don Willot

The Safe Routes to School Program: State Support for Walking and Biking to School

The Safe Routes to School Program is a funding and technical assistance program administered by the Washington State Department of Transportation. It is designed to increase the number of children walking and biking to school safely. In 2009, the Washington State Legislature codified the Safe Routes to School Program into law.

RCW 47.04.300 Safe routes to school program.

Concurrent with the federal safe, accountable, flexible, efficient transportation equity act of 2005, a safe routes to school program is established within the department. The purpose of the program is to:

(1) Enable and encourage children, including those with disabilities, to walk and bicycle to school;

(2) Make bicycling and walking to school a safer and more appealing transportation alternative, encouraging a healthy and active lifestyle from an early age; and

(3) Facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools.

Local Governments Responsibilities for School Pedestrian Safety

The Washington State Legislature gave local governments specific responsibilities to ensure that new construction and development provide adequate facilities for student pedestrian's safety. Specifically, RCW 58.17.060, "Short plats and short subdivisions," requires local jurisdictions to adopt regulations that ensure that new subdivisions and short plats are served by adequate facilities that assure safe walking conditions for students who walk to and from school. When considering proposed subdivisions and short plats, local governments are required to ensure "appropriate provisions are made for considering sidewalks and other planning features that assure safe walking conditions for students who only walk to and from school." School districts and partners wanting to promote students walking to and from school should work to ensure that such sidewalks or walkways are included as a requirement by local jurisdictions.

Student Transportation Services

Coordinating walk routes and student bus routes is beneficial in planning efforts. Some school districts elect to bus some students living within a one-mile walking distance of the school as a way to avoid a hazardous walking condition, such as the need for children to cross multiple lanes of fast moving traffic at an uncontrolled pedestrian crossing.

Before 1996, additional student transportation funding could be given to schools who could prove "hazardous walking conditions" existed along their walk routes, allowing for the busing of these students. In 1996, the State Legislature changed the allocation formula for this additional student transportation funding. All schools received a portion of funding based on the number of kindergarten through fifth grade students living within a one-mile radius of the school. This additional funding could be spent by the district for additional buses, crossing guards, or as matching funds for local and state transportation projects intended to improve pedestrian safety.

In 2009, the State Legislature amended the law regarding student transportation services within one mile of schools to provide funding only for those students without a safe walking route.

School Walk & Bike Routes:

It is worth noting that when "hazardous" walking conditions occur close to the school, many dollars are spent in busing those students who would normally live close enough to school to walk. Therefore, in the long run, correcting walking conditions close to a school can result in a cost savings, as well as providing good exercise for children who can then walk.

Before planning a walking route, planners should review the various pedestrian laws. These include rules regarding how pedestrians should travel along roadways, how pedestrians and vehicles interact at crosswalks, and other situations. Washington State's pedestrian laws are summarized below, each followed by its RCW citation:

Pedestrian Laws

- Pedestrians must obey traffic-control signals and traffic control devises unless otherwise directed by a traffic or police officer (RCW 46.61.050).
- Drivers and bicyclists must yield to pedestrians on sidewalks and in crosswalks (RCW 46.61.261).
- Pedestrians must use sidewalks when they are available. If sidewalks are not available, pedestrians must walk on the left side of the roadway or its shoulder facing traffic (RCW 46.61.250).
- No pedestrian or bicycle shall suddenly leave a curb and move into traffic so that the driver cannot stop (RCW 46.61.235).
- Every driver of a vehicle shall exercise due care to avoid colliding with any pedestrian upon any roadway and shall give warning by sounding the horn when necessary (RCW 46.61.245).
- Every pedestrian crossing a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right of way to all vehicles (RCW 46.61.240).
- Vehicles shall stop at intersections to allow pedestrians and bicycles to cross the road within a marked or unmarked crosswalk (RCW 46.61.235). See Figure 1, Washington's Crosswalk Law, for explanation.

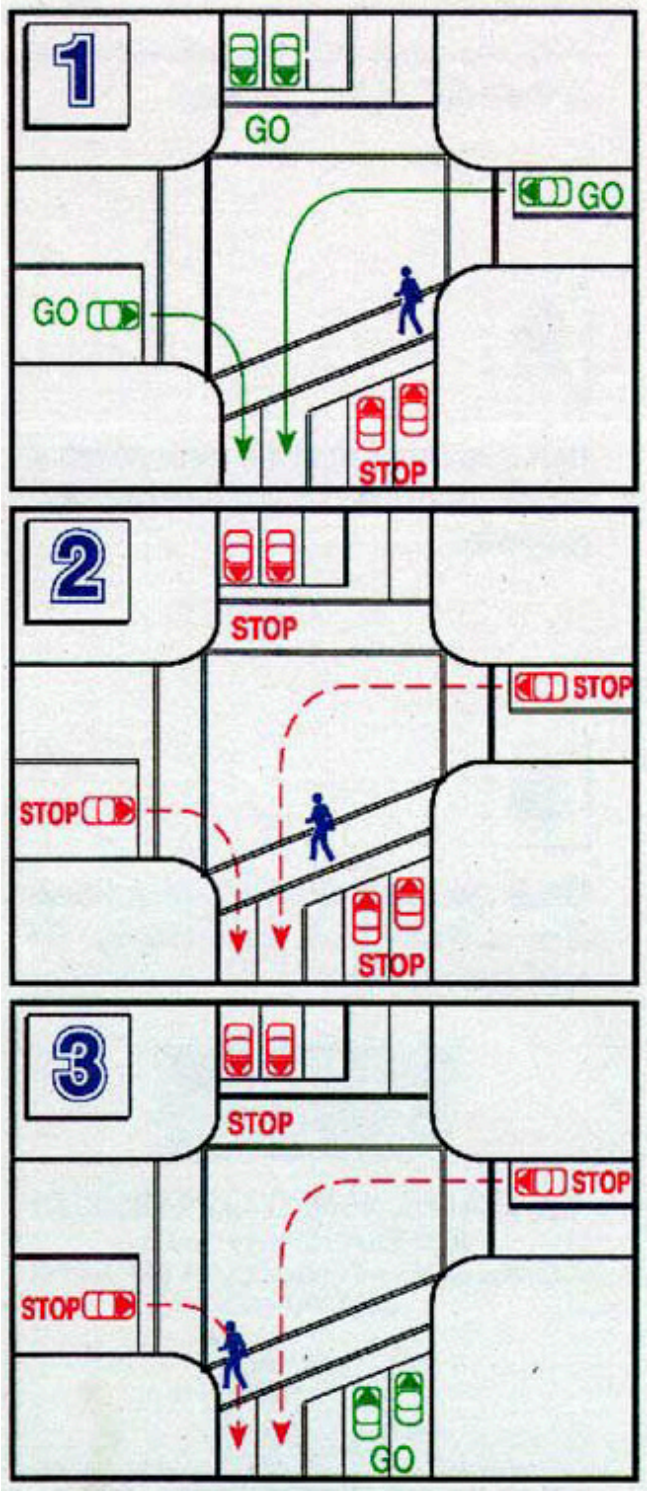


Figure (1): *Washington State's Crosswalk Law (revised 1993)*

1. Vehicles must stop if a pedestrian is in the vehicle's half of the roadway.
2. Vehicles must stop if a pedestrian is within one lane of the vehicle's half of the roadway.
3. Vehicles may proceed, once the pedestrian is beyond one lane of their half of the roadway.

School Bicycle Routes:

Providing school bicycle routes are not required by law. However, the benefits of bicycling and walking to school are the same. Schools and school districts should consider providing information about route conditions that are less hazardous for young bicyclists. Reviewing the following bicycle laws will help those planning school bicycle routes begin the process.

Bicycle Laws

- There is no state law requiring helmet use. However, some cities and counties do require helmets, see http://wsdot.wa.gov/bike/helmets.htm. (Note, some schools require as part of their student transportation policy that students receive school approval in order to bring bikes to school and to get that approval parents must agree that students riding bikes to school wear helmets.)
- The driver of a vehicle shall yield the right of way to any pedestrian or bicycle on a sidewalk. The rider of a bicycle shall yield the right of way to a pedestrian on a sidewalk or crosswalk (RCW 46.61.261).
- When riding on a roadway, a cyclist has all the rights and responsibilities of a vehicle driver (RCW 46.61.755). (RCW 46.61.755). Cyclists who violate traffic laws may be ticketed.
- When riding on a two way street, ride as near to the right side of the right through lane as is safe except when making a turn, or when passing. When riding on a one way street, cyclists may ride as near to the left side as is safe. (RCW 46.61.770).
- Some highways are closed to bicycles for safety reasons. See wsdot.wa.gov/bike/closed.htm for more information. In addition, local governments may adopt ordinances banning cycling on specific roads or on sidewalks within business districts.
- Parents or guardians may not knowingly permit bicycle traffic violations by their child or ward (RCW 46.61.700).
- Cyclists may ride side by side, but not more than two abreast.
- For night bicycle riding, a white front light (not a reflector) visible for 500 feet and a red rear reflector are required. A red rear light may be used in addition to the required reflector(RCW 46.61.780).
- Cyclists may choose to ride on the path, bike lane, and shoulder or travel lane as suits their safety needs(RCW 46.61.770).(RCW 46.61.770).

Photo by Don Willot

School Zone Speeding Laws

Its a matter of life or death. A pedestrian hit by a vehicle has a 95 percent chance of surviving the collision if the vehicle is traveling 20 M.P.H. or less. However, if the vehicle is traveling 40 M.P.H., or greater, a pedestrian has an 85 percent chance of dying. With this in mind, speeding traffic in the school zone is a major concern. Recognizing this, the 1996 Washington State Legislature doubled the fine for speeding in school zones.

RCW 46.61.440 Maximum speed limit when passing school or playground crosswalks – Penalty disposition of proceeds.

(1) Subject to RCW 46.61.400(1), and except in those instances where a lower maximum lawful speed is provided by this chapter or otherwise, it shall be unlawful for the operator of any vehicle to operate the same at a speed in excess of twenty miles per hour when operating any vehicle upon a highway either inside or outside an incorporated city or town when passing any marked school or playground crosswalk when such marked crosswalk is fully posted with standard school speed limit signs or standard playground speed limit signs. The speed zone at the crosswalk shall extend three hundred feet in either direction from the marked crosswalk.

(2) A county or incorporated city or town may create a school or playground speed zone on a highway bordering a marked school or playground, in which zone it is unlawful for a person to operate a vehicle at a speed in excess of twenty miles per hour. The school or playground speed zone may extend three hundred feet from the border of the school or playground property; however, the speed zone may only include area consistent with active school or playground use.

(3) A person found to have committed any infraction relating to speed restrictions within a school or playground speed zone shall be assessed a monetary penalty equal to twice the penalty assessed under RCW 46.63.110. This penalty may not be waived, reduced, or suspended.

(4) School districts may erect signs that comply with the uniform state standards adopted and designated by the department of transportation under RCW 47.36.030, informing motorists of the increased monetary penalties assessed for violations of RCW 46.61.235, 46.61.245, or 46.61.261 within a school, playground, or crosswalk speed zone created under subsection (1) or (2) of this section.

(5) The school zone safety account is created in the custody of the state treasurer. Fifty percent of the moneys collected under RCW 46.61.235(5), 46.61.245(2), or 46.61.261(2) shall be deposited into the account. Expenditures from the account may be used only by the Washington traffic safety commission solely to fund projects in local communities to improve school zone safety, pupil transportation safety, and student safety in school bus loading and unloading areas. Only the director of the traffic safety commission or the director's designee may authorize expenditures from the account. The account is subject to allotment procedures under chapter 43.88 RCW, but no appropriation is required for expenditures until July 1, 1999, after which date moneys in the account may be spent only after appropriation.

The designation of a 20 M.P.H. school speed zone may be considered under two conditions:

- On a roadway with a marked school or playground crosswalk
- On a roadway that borders a school or playground

Before changes to the speed can be made, traffic volumes, number of lanes to be crossed, and other roadway features must be considered. There may be cases where a 20 MPH speed limit on a roadway with high traffic volumes and roadway characteristics that invite high travel speeds would not improve traffic safety. School speed zones can only be designated by the city, county, or state agency that is responsible for the roadway. Any school speed zone on a state highway that is part of a city street requires concurrence from Washington State Department of Transportation and the city. Once established, the school district is responsible for determining when the school speed zone is in effect. If the school speed zone is limited to parts of the day/week then the following messages, installed as plaques at the base of the speed limit sign can be used:

- When Flashing (used in conjunction with a school zone flashing beacon)
- When Children are Present (as defined by WAC 392-151-035 and WAC 468-95-060)
- When Flagged (used in conjunction with warning flags that are installed on the sign during the window of enforcement)
- Day and/or Time (with specific days of the week and/or times of the day)

A study completed by the Washington Traffic Safety Commission has identified flashing yellow beacons/ lights as one of the most effective ways to reduce speeds of vehicles in school zones. Contact the Washington Traffic Safety Commission for more

information http://wtsc.wa.gov/programs-priorities/school-zones/. An electronic, changeable message sign, another effective tool, may also be used to display the school speed limit during the time periods it is in effect.

Establishing Maximum Speed Limits on Non-Arterial Roadways

In 2013, the Legislature added a section to RCW 46.61.415 that allows cities and towns to establish a maximum speed limit of 20 MPH on certain non-arterial streets without having to conduct an engineering and traffic study. This applies only if the city or town has developed procedures for establishing such lower speed limits.

RCW 46.61.415(3) When local authorities may establish or alter maximum limits.

a) Cities and towns in their respective jurisdictions may establish a maximum speed limit of twenty miles per hour on a nonarterial highway, or part of a nonarterial highway, that is within a residence district or business district.

b) A speed limit established under this subsection by a city or town does not need to be determined on the basis of an engineering and traffic investigation if the city or town has developed procedures regarding establishing a maximum speed limit under this subsection. Any speed limit established under this subsection may be canceled within one year of its establishment, and the previous speed limit reestablished, without an engineering and traffic investigation

c) This subsection does not otherwise affect the requirement that cities and towns conduct an engineering and traffic investigation to determine whether to increase speed limits.

When establishing speed limits under this subsection, cities and towns shall consult the manual on uniform traffic control devices as adopted by the Washington state department of transportation.

Photo by Don Willot

Washington Facts and Figures: Did You Know?

- The child traffic-death rate, including pedestrians killed in traffic collisions, has decreased from 1.58 deaths per 100,000 population in 2004 to 0.99 deaths per 100,000 population in 2013 for children ages 0-14. Source: Fatality Analysis Reporting System (FARS), OFM Population.
- In 2013, while unintentional injuries were the leading cause of injury hospitalization for children ages 5-9, pedestrian incidents accounted for only a small percentage (two percent) of those injuries; well behind falls (46 percent), motor vehicle collisions (six percent), and fire/burns (three percent). Source: Washington State Department of Health, Center for Health Statistics.
- From 2009-2013, nearly 331 pedestrians of all ages died from traffic related injuries and there were another 2,013 hospitalizations. Children 15 and younger accounted for (8 percent) of these pedestrian fatalities and (14 percent) of the hospitalizations.
- From 2009-2013, 49 bicyclists of all ages died from traffic related injuries. Children 14 and younger accounted for ten percent (5) of these fatalities.

School Walk & Bike Routes:

Year	All Traffic Related Deaths Children Ages 0-14	Children Ages 0-14 population	All Traffic Related Deaths per 100,000 pop
1994	52	1,213,460	4.29
1995	39	1,228,772	3.17
1996	42	1,238,027	3.39
1997	43	1,250,684	3.44
1998	25	1,256,158	1.99
1999	33	1,26,1695	2.62
2000	35	1,255,051	2.79
2001	29	1,259,240	2.30
2002	32	1,260,062	2.54
2003	26	1,256,434	2.07
2004	20	1,257,287	1.59
2005	33	1,260,010	2.62
2006	20	1,270,778	1.57
2007	22	1,283,370	1.71
2008	13	1,295,245	1.00
2009	18	1,302,700	1.38
2010	18	1,307,767	1.38
2011	12	1,307,278	0.92
2012	13	1,309,139	0.99
2013	13	1,314,802	0.99

Data source: FARS

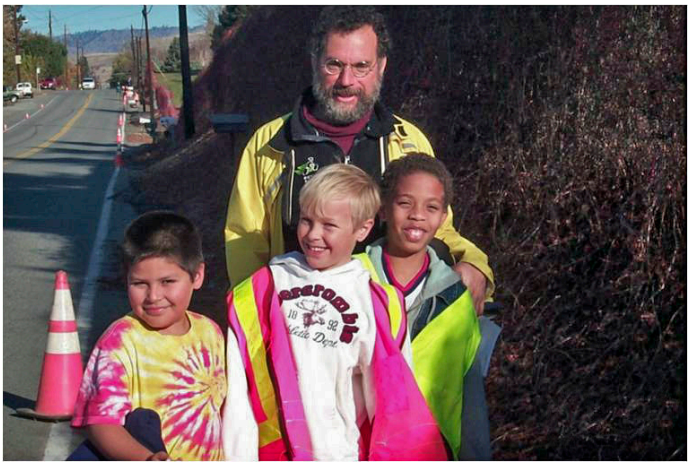
Figure 2: *Washington Traffic Fatality Rate per 100,000 pop., Ages 10-14*

Chapter Three

The Partnership Approach to Student Pedestrian and Bicycle Safety

Developing and maintaining school walk route plans are most effective when coordinated with students, school safety patrols, student pedestrian safety education, parents who practice safe driving habits, law enforcement efforts, best engineering practices, and support from the public and elected officials.

This chapter provides an overview to the partnership approach to student pedestrian and bicycle safety. It discusses the roles and the responsibilities for student pedestrians and bicycle riders and suggests possible ways for concerned parties to work together.



Partners and Responsibilities

Pedestrian and bicycle safety improvements for school walk or bike routes will benefit the entire community, not just school children. The same routes that children take to school are used evenings and weekends by other neighborhood children and by adults to get to school play fields, auditoriums, work, and other community facilities. Improving these walk routes with added sidewalks, widened shoulders, bike lanes, or other improvements creates a safer environment for everyone—24 hours a day.

Another benefit to building community partnerships is that by doing so, school districts invite varied perspectives to solve student pedestrian safety concerns. For example, when developing a walk route, designers will choose a particular crossing for students to use based on sight distances, existing crossing controls, traffic speeds, etc. However, in many school zones, problems arise when cars consistently park along the side of a road too close to a crosswalk. A car parked this way blocks children's views of oncoming traffic and presents a potential concern.

A good student pedestrian safety education program may teach children to lean forward and peek out before walking all the way into the crosswalk, but this is hardly a long term solution! A parent group may determine that parents who drop off or pick up children from school are the most likely to park their cars this way and they may launch a parent education campaign reminding parents to park further away from the crosswalk, or they may develop flyers to place on the windshields of the offending cars asking them to park in a different location. The school principal could develop drop off and pick up areas or times to alleviate the congestion that often encourages such driver behaviors. A traffic engineer may suggest creating a no parking zone with signs or paint. If those measures are already in place, a law enforcement officer could ticket drivers parking in "no parking" zones. Engineering improvements, such as curb extensions could provide physical barriers giving students the space they need around a crosswalk. Finding the budget for physical engineering improvements will require working with city, county, or state transportation professionals, as well as those who oversee the budgets such as elected officials.

Collaborative Partnerships Create Better Plans

A comprehensive student pedestrian and bicycle safety plan is best addressed by building community partnerships between school administrators and local public works agencies, local law enforcement agencies, local health, parks and recreation, legislative representatives, local businesses, school-parent organizations, parents, and students. Working collaboratively with community partners ensures that any pedestrian and bicycle safety concern can be addressed by a variety of solutions.

School Walk & Bike Routes:

This section identifies community partners and discusses their role in student pedestrian and bicycle safety. Community partners include:

- students,
- school district administrators and transportation directors,
- school building administrators, principals, and staff,
- local governmental jurisdictions public works, planning, transportation engineers, and law enforcement,
- parents/guardians,
- drivers,
- Metropolitan Planning Organizations,
- local health departments,
- local business,
- bicycle and pedestrian organizations, and
- other interested governmental agencies and non-profit organizations.

Students

A student's personal responsibility for his or hers own safety as a pedestrian or bicyclist cannot be over-emphasized. The child must understand and follow the instructions given for walking and biking to and from school. Children develop life-saving pedestrian and bicycle skills and awareness through practice under the supervision of educated adults who model safe pedestrian and bicycle behaviors.

School Districts

School Districts are responsible for:

- locating and developing school facilities that foster good walking and biking conditions,
- establishing bike/pedestrian safety committees,
- establishing student pedestrian safety policies,
- fostering community partnerships that pool knowledge and resources to provide a comprehensive approach to student pedestrian safety, and
- distribution of approved walking route maps to elementary students and their parents.

School Facilities:

School districts have a great opportunity to influence pedestrian and bicycle safety when they establish a new school. While evaluating a potential site for a new school, consider sites which are easily connected to the existing pedestrian system and within walking distance of residential neighborhoods served by the school. Take the inclusion of sidewalks, paved shoulders, bike lanes, or separated pedestrian pathways on the streets which border the school site into account when planning the site design. Schools should provide a clear separation from pedestrians and bus and parent vehicle pickup and drop- off points. Bus and parent vehicle pickup and drop-off areas should also be separated, each providing drop-off on walkways adjacent to school buildings. By working with local public works agencies during the site design process, school districts and transportation engineers identify important school crossings. They can implement the most ideal crossing treatments, including signing and striping for crosswalks and where student crossing guards will be located. For more recommendations on new school considerations, please see Appendix B, "Practical Tips for Opening a New School."

School districts can influence pedestrian and bicycle safety at existing school sites, as well. Districts can encourage school administrators to consider innovative approaches to pedestrian and bicycle safety such as separating bus traffic from parent vehicles or developing parking lot traffic flow patterns. Districts can encourage individual schools to call upon the services of local law enforcement officers or local transportation engineers when safety concerns occur. When needs arise, school districts can help evaluate, prioritize, and seek funding for needed engineering improvements along school walk or bike routes.

Pedestrian and bicycle safety policies: The school district should set policies regarding school safety patrols, school walk routes, walking school buses, and pedestrian/bicycle safety education. These elements may be part of a larger transportation safety program that includes school bus route plans and the policy for providing bus transportation for students living within a one-mile walking distance of the school. The district should have an efficient and equitable process to

address parent requests that bus transportation be provided for their child, even if their child lives within a one-mile walking distance from school.

Establishing and documenting safety policies is one way to reduce potential liability for injuries sustained by students or employees.

Fostering Community Partnerships: School districts should take the lead in developing community relationships for improving student pedestrian and bicycle safety. District administrators, or even the school board, need to clearly assign responsibilities to some entity—be it a department, person, or committee—that will have the authority to oversee safety issues and coordinate the development and maintenance needs of walk routes. The authority needs to ensure that community partners are contacted and consulted, so that a community's resources and knowledge is pooled to provide a comprehensive approach to pedestrian and bicycle safety issues. Once identified, such an authority could:

- oversee and update school walk route development and endorse school route maps,
- prioritize and coordinate multi-agency, district-wide engineering pedestrian or bicycle safety improvements,
- act as mediator, hearing appeals regarding school walk route assignments, and
- advise the school board or the district superintendent on recommended policies (or changes in policies) on pedestrian safety issues.

  Please see, "Working Together," on page 17 for more information on this topic.

Schools

School administrators are responsible for overseeing the school's walk route and safety patrol programs. They should play an active role in student pedestrian and bicycle safety education and the training of crossing guards. Consideration should be given to policies that will create drop off and pick up zones that reduce traffic and idling. School administrators are the primary contact for educating parents on the school's drop off and pick up procedures or other school specific parking lot controls. They should encourage parents to model good pedestrian safety skills for their children by sharing student pedestrian and bicycle

safety education materials with them. The principal should review the programs annually and oversee adjustments if there are changes in the environment such as new construction or increases in traffic volumes. Schools are responsible for distributing walk route maps to parents and students each year.

Local Governmental Jurisdictions

City, county, or state agencies need to be involved with school pedestrian and bicycle safety. City councils, county boards, and other elected officials play a significant role in providing the underlying political commitment for the local government to support walking and biking options for children. At a minimum, consultation and/or partnerships with local government staff responsible for community planning, transportation infrastructure, traffic control, enforcement, and maintaining the roads near the school should be pursued.

Work with public works and transportation engineers for infrastructure improvements on city or county roads. These individuals are responsible for designing, installing, and maintaining traffic control devices and other pedestrian and bicycle facilities. When improvements are needed on a state route connected with the Washington State Department of Transportation Region Traffic Engineers. Local and region public works and transportation engineers are the communities' best source for suggestions on

possible traffic control, and pedestrian and bicycle facility fixes.

Local jurisdictions also administer zoning and building permits, and in some locales, collect school impact fees from private developers for the school districts. As mentioned under School District Responsibilities above, school districts and local governments need to keep each other aware of planned developments within the school district's service area. Local planners are great contacts for sharing this information. They are the jurisdictions' main contact for information about planned improvements to the roads, and pedestrian and bicycle facilities. They are also a source for information about parks and other community activity centers where shared facilities might be an option. It is important to provide local planners with school related traffic control and pedestrian and bicycle facility improvement needs so that they can be included in the communities' comprehensive plans.

Local governments also include law enforcement officers who may be able to offer school pedestrian and bicycle safety education or may be available to train school patrols, both adults and students. Many law enforcement agencies in Washington State practice community policing, assigning the same officer to answer all the calls from one set of schools. School principals can call their local law enforcement agency to see if this is the case and obtain the officer's name. The principal can invite the officer to school functions or ask the officer to provide training. If dangerous driver behaviors are plaguing your walking or biking routes, increased presence of a law enforcement officer during school commute times can go a long way towards correcting the problem.

Parents/Guardians

Parents of school children can make strong allies in promoting student pedestrian and bicycle safety. Their attitudes toward pedestrian and bicycle safety strongly influence their children, and they are likely to comprise the majority of drivers around a school during drop off and pick up times. Parents should review pedestrian safety educational materials that come home with their child and remember to model ideal pedestrian and bicycle behaviors. When the school walk route comes home, parents need to travel the route with their children and ensure that the child understands and practices safe walking behavior.

Parents also serve in leadership roles with Parent-Teacher organizations or as members of a school Site Council team. These roles often find parents at the forefront of improving safety for their children.

Drivers

Perhaps the greatest responsibility for school pedestrian safety lies with the individual driver. Pedestrians have the right-of-way in a crosswalk, marked or not, and the driver must stop to allow pedestrians to cross. Motorists must exercise extreme caution in school zones and along the route to school.

By building community partnerships, unsafe driving behaviors can be addressed with a variety of solutions. Please see Chapter five, "Development and Implementation of a Student Pedestrian and Bicycle Safety Improvement Plan," Figure 10: Solving Unsafe Driver Behaviors on page 35, for a description of methods to improve driving behaviors along the walk route.

Metropolitan Planning Organization (MPO)

There are nine regional Metropolitan Planning Organizations in Washington State. These groups provide a forum for cities, counties, ports, transit agencies, tribal nations, school districts, health organizations, and state agencies to work together to develop transportation plans for their region. School district representation on the council is beneficial in obtaining funding for school walk and bike route improvements. These organizations may be a great resource for map-making and traffic characteristics information. Appendix C, "Metropolitan Planning Organizations," contains a list of regional MPOs.

Local Public Health Departments

There are 35 local health departments throughout the state. These departments can help build partnerships with community members and provide health data to support walking and biking to school. Some departments receive funding that could help establish walking school bus programs.

Bicycle and Pedestrian Organizations

Local, regional, and statewide bicycle organizations throughout Washington provide educational opportunities for children to learn about bicycle and pedestrian safety by participating in events and classes. Some organizations work directly with schools to teach bike safety and encourage children to bike to school. Bicycle and pedestrian organizations can also provide technical consulting on developing bicycle and pedestrian programs, routes, and safety improvements. See appendix A for resource ideas.

Other Governmental Agencies and Non-Profit Organizations

There may be other public agencies that are responsible for sections of the roadway along the walk or bike route such as: a parks department, cemetery district, port district, fire district, drainage district, utility division, railroad district, irrigation district, Department of Natural Resources, or U.S. Forest Service. Even private owners of easements such as the power company, water company, subdivision governance boards, neighborhood associations, or railroads could be affected by pedestrian and bicycle improvements along school walk routes. Home owners' associations and private businesses are also potential partners for student pedestrian and bicycle safety programs.

The Washington Traffic Safety Commission, the Washington State Department of Health, and the Washington State Department of Transportation Safe Routes to School Program are just three of the agencies with resources available for improving student pedestrian and bicycle safety. Please consult Appendix A, "Ideas and Resources for Student Pedestrian and Bicycle Safety Improvements," for a list of resources dedicated to improving student pedestrian safety, encouraging walkable communities, and funding school walk route improvements.

Also, remember to contact elected officials and let them know about any student pedestrian safety concerns that occur in their district. They control the budgets and their support can be critical in funding solutions.

Working Together

It is recommended that each school district establish a Safety Advisory Committee to aid in the development of school walk route plans and that committee members include representatives from the school administration, law enforcement, traffic engineering, and the school-parent organization.

While each school district may or may not actually have a Safety Advisory Committee comprised of such representation, the role and authority that such a committee would have needs to be clearly assigned by the school district. In districts around the state, this authority may be given to an existing community safety or security committee, assigned to a transportation department, charged to the community site councils at individual schools, or delegated to any other individual, department, group, or committee that suits the district's size and characteristics.

Tasks for Overseeing Pedestrian and Bicycle Safety and Walk and Bike Route Development

Once assigned, the Safety Advisory Committee should work with community partners, either through a committee, or through informal meetings to coordinate activities. The following is a list of possible tasks for such a group:

- Advise the school board or superintendent on recommended policies on student pedestrian and bicycle safety issues, including school patrol policies and placement at intersections and school walk route development.
- Oversee walk and bike route development and maintenance at each elementary school.
- Coordinate the development of walk areas within one mile of each school to identify which students are eligible for transportation funding.

School Walk & Bike Routes:

- Coordinate the receiving, reviewing, and resolution of suggestions and concerns about student pedestrian and bicycle safety. Examine available collision and injury data to stay alert to any concerns along the walk or bike route.
- Serve as the contact for local planning agencies (or include local agencies on a committee) to receive notification of planned development, review development plans, and respond to any plans or environmental reviews within the school district's service area.
- Provide input on city/county decisions about street, pedestrian, and bicycle improvement plans.
- Prioritize pedestrian safety concerns throughout the district and work with community partners to suggest solutions. Explore solutions that rely on parent education, enforcement, low cost signage or striping, as well as engineering solutions.
- Recommend actions to be taken and work with the school district and community partners to fund and coordinate improvement.
- Provide input to the decision process for the design and location of new schools.

Although the cooperative process is ideal and necessary to maximize the use of public resources, each agency is legally responsible for measures within its jurisdiction as defined by local ordinance and state law. Any recommendations from the School Safety Advisory Committee, a pedestrian safety committee, or group should be evaluated for conformity with adopted engineering standards, for availability of funds, and for legal considerations by the implementing agency. The pedestrian safety committee should be sensitive to these issues in making its recommendations to local and state agencies. Active participation by local transportation engineers, public works staff, and the other aforementioned community partners should minimize recommendations that are not feasible.

Local Champions

One feature consistent with successful programs is the presence of a local champion. These people don't have to have a specific title or affiliation but it's important to have someone who is interested in the program and is willing to keep the ball rolling. They

may serve as a chair to the community Safety Advisory Committee or act as a general support person to ensure that progress continues. Historically, these local champions tend to be parents but they may also be school administrators, law enforcement officers, teachers, public health professionals, public works directors, etc.

Chapter Four

Steps for Developing and Maintaining School Walk Route and Bike Route Plans

This chapter provides information about childhood development and step-by-step procedures for preparing walk route plans for schools in Washington. While not required, it also provides information about preparing school bike route plans. Walk and bike routes may be combined in one map or it may be better to provide two separate maps. The process presented below is specific to creating a walk route map but can be used to complete school bike route maps as well. It provides an explanation of the principles that will guide the selection of specific routes, and steps necessary to produce maps that present the routes in a clear and concise manner.

Ultimately, however, no guidebook can cover all situations, nor can it replace the need for the common-sense application of safe walking and biking principles applied to specific situations. Working collaboratively with transportation engineers, law enforcement officers, and other community professionals provides the best results.

Childhood Development

For those tasked with creating and maintaining school walk routes, a basic understanding of childhood development as it relates to pedestrian and bicycle skills is necessary. Young children do not have the same abilities and skills to safely and consistently cope with traffic as older children and adults. This puts younger students, especially those five through nine years of age, at an increased risk for pedestrian and bicycle related traffic injuries. The following is a list of characteristics that illustrate what school walk route planners should consider regarding childhood development:

- A six-year-old's eye level is about 36 inches above the ground. Their smaller size makes them difficult for drivers to see, especially if they are standing between parked cars on the side of the road.
- Young children may have limited peripheral vision compared to adults, and they may have greater difficulty determining the source of a sound. For instance, children around seven to eight years old typically stop using peripheral cues to help maintain balance, relying instead on their central vision to do so. In turn, children at this age cannot use their peripheral vision as effectively to scan for traffic hazards.
- Children are still learning to judge distances and speeds. When a car is coming toward them, they cannot judge accurately how fast it is traveling or how long it will take to cover the distance. They can easily misjudge whether it is safe to cross a street.
- Children are slower to execute their actions once their decision is made, meaning that children have a delay from the moment they make the decision to the moment they act.
- Children are spontaneous and have trouble stopping an action once started.
- Children younger than about third grade often cannot focus on more than one thing at a time. They have short attention spans and are impulsive and inherently curious. If they are playing with friends or riding bikes it is unlikely that they are aware of traffic.
- Parents can over-estimate their children's ability to cross the street safely. Many elementary school-aged children don't understand traffic signals and don't know how to anticipate drivers' actions. Children under six rarely understand the true nature of a dangerous situation.
- Children also tend to overestimate their abilities, thinking that they can run across a street before the flashing light changes or a car approaches. Their thinking is a combination of reality and fantasy, knowledge and miscomprehension. Drivers and child pedestrians can each assume (incorrectly) that the other will yield the right-of-way.
- Bicycle riding in traffic involves two types of motor skills: 1. basic bicycle handling skills; and 2. physical safety skills. For children, both skills must be practiced frequently and together so that the skills become automatic.
- Children and adolescents take risks due to the presence of peers and emotional development. During early adolescence the socio-emotional center of the brain is more dominant, meaning risk taking is more emotionally rewarding.

Each child matures and learns the skills needed to negotiate traffic at their own rate. Parents and guardians should assess their child's traffic skills and judgment before allowing them to walk or bike to school without supervision.

School Walk Route Map

A school walk route map recommends a walking route to school based on considerations of traffic patterns, traffic volume, speed limits, road hazards, and existing traffic controls such as cross walks, traffic lights, or school safety patrol posts. The chosen route should seek to limit the number of school zone crossings in a way that encourages students to cross streets in groups, and minimizes the number of entrance-exits from each block to and from school.

A walk route should:

- Cover a one-mile walking distance from the school, excluding areas outside the school service area. A walk route does not need to provide details that cover neighborhood streets.
- Seek routes that provide the greatest physical separation between walking children and traffic, expose children to the lowest speeds and volumes of moving vehicles, and have the fewest number of road or rail crossings.
- Consider school age children with disabilities.
- Provide the most direct route possible, given the considerations above, in order to provide a convenient, agreeable way to get to school on foot or by bike. An example of a school walk route map is shown in Figure 2.

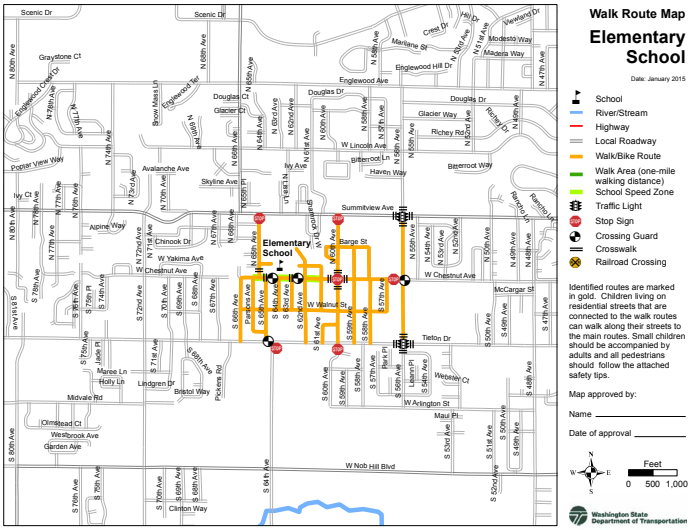


Figure 3: *School Walk Route Map This typical school walk route map is ready for distribution. A larger version of this same map is shown on page 27.*

School Bike Route Map

A school bike route map recommends biking routes at least within one mile from school, based on similar considerations to those used for identifying walk routes. They will often be the same routes.

A bike route should:

- Seek routes that have low traffic volumes and speeds, dedicated space for children to ride, such as a bike path or lane, and minimal complex intersections and driveways.

Steps to Develop a Walk Route Plan

Following this step-by-step procedure will result in clear and concise maps to show parents and children the preferred walking route to school and result in a written plan for safety improvements.

Step 1: Inventory existing walking conditions

Step 2: Identify the safe walk routes,

Step 3: Distribute the maps,

Step 4: Work with community partners to make recommended improvements

Step 5: Evaluate and repeat

Step 1: Inventory Existing Walking Conditions

Start with a base map that shows the streets and school locations within a one mile walking distance around the school. Maps can be obtained from city or county planning or public works agencies. Check with your regional Metropolitan Planning Organization (MPO) for map making assistance. A list of the state's MPOs is contained in Appendix C on page 45. In addition, the Washington State

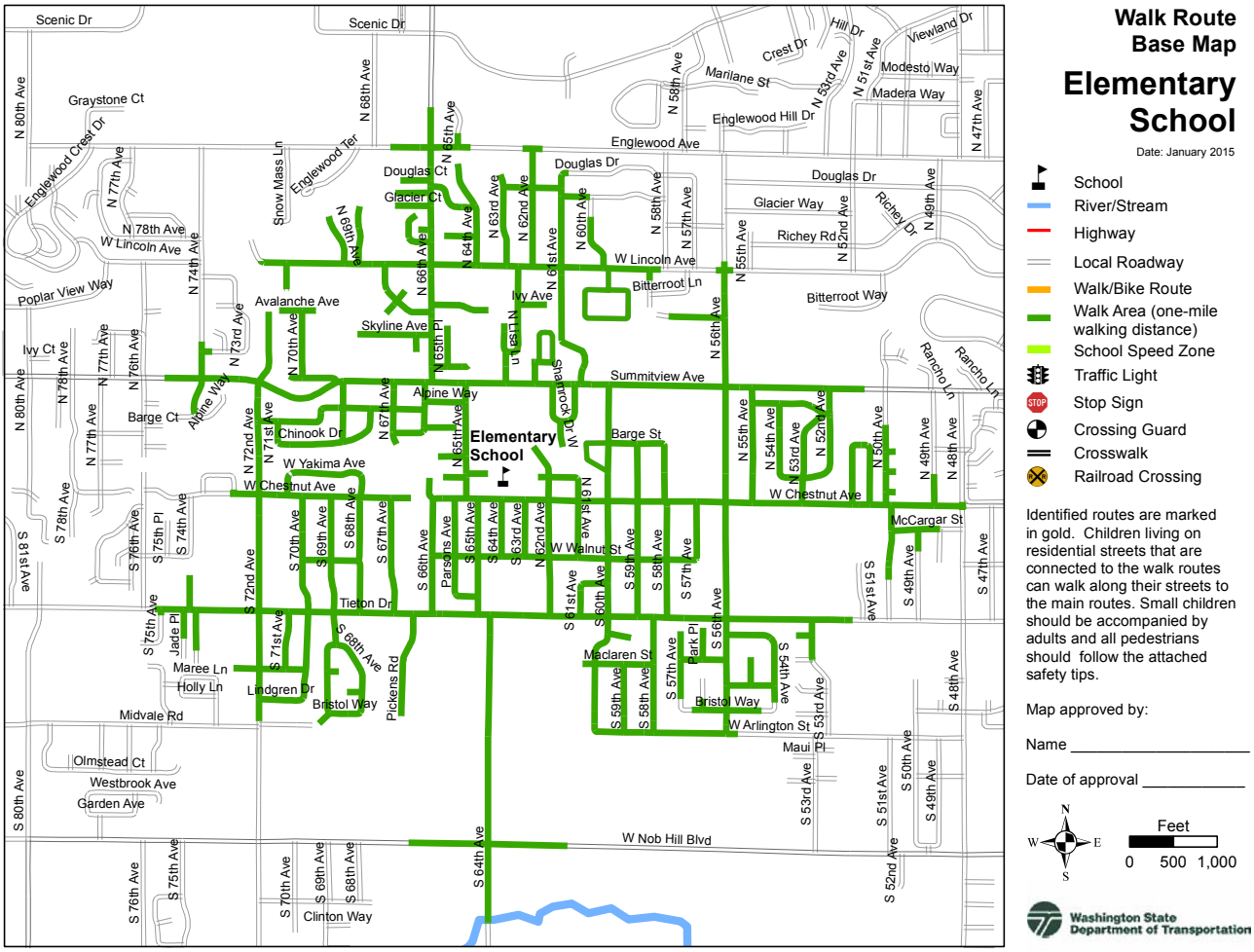


Figure 4: *Base Map*

This sample base map is clear and simple, showing only the school and major street names. The base map is used as the "bottom layer" of the other maps that will be developed during school walk route identification/development.

Department of Transportation Community Design Assistance Office can provide mapmaking services.

To save time, mark locations that do not need to be included in the inventory. Figure 5, "Walk Route Study Area," on page 22, shows a base map that has eliminated the areas that would not typically apply to a walk route. It includes locations that are:

- Outside the school service area;
- Areas where there are no students; and
- Areas that are excluded for some other reason.

A field inventory or walk audit is done by walking, biking, or driving through the area and recording the needed data directly on the base map. There are several assessment tools or worksheets that have been created to help with this process. For more information about the tools available and their intended uses review the National Center for Safe Routes to School document, Assessing Walking and Bicycle Routes: A Selection of Tools available at www.saferoutesinfo.org/program-tools/assessing-walking-and-bicycling-routes. The goal of the field inventory is to identify existing pedestrian facilities and safety concerns that will impact students walking to and from school. Special attention should be paid to streets adjacent to school grounds.

It will help to ask students to make a map of how they get to school even if it is by car or bus. The information gathered from school bus riders can be shared with local jurisdictions to help develop safe walking routes to bus stops. Use the walk and bike related maps that the children create and walk or bike the streets and neighborhoods near the outer limits of the one mile walking distance from the school. Check with the district's transportation department to determine if the

School Walk & Bike Routes:

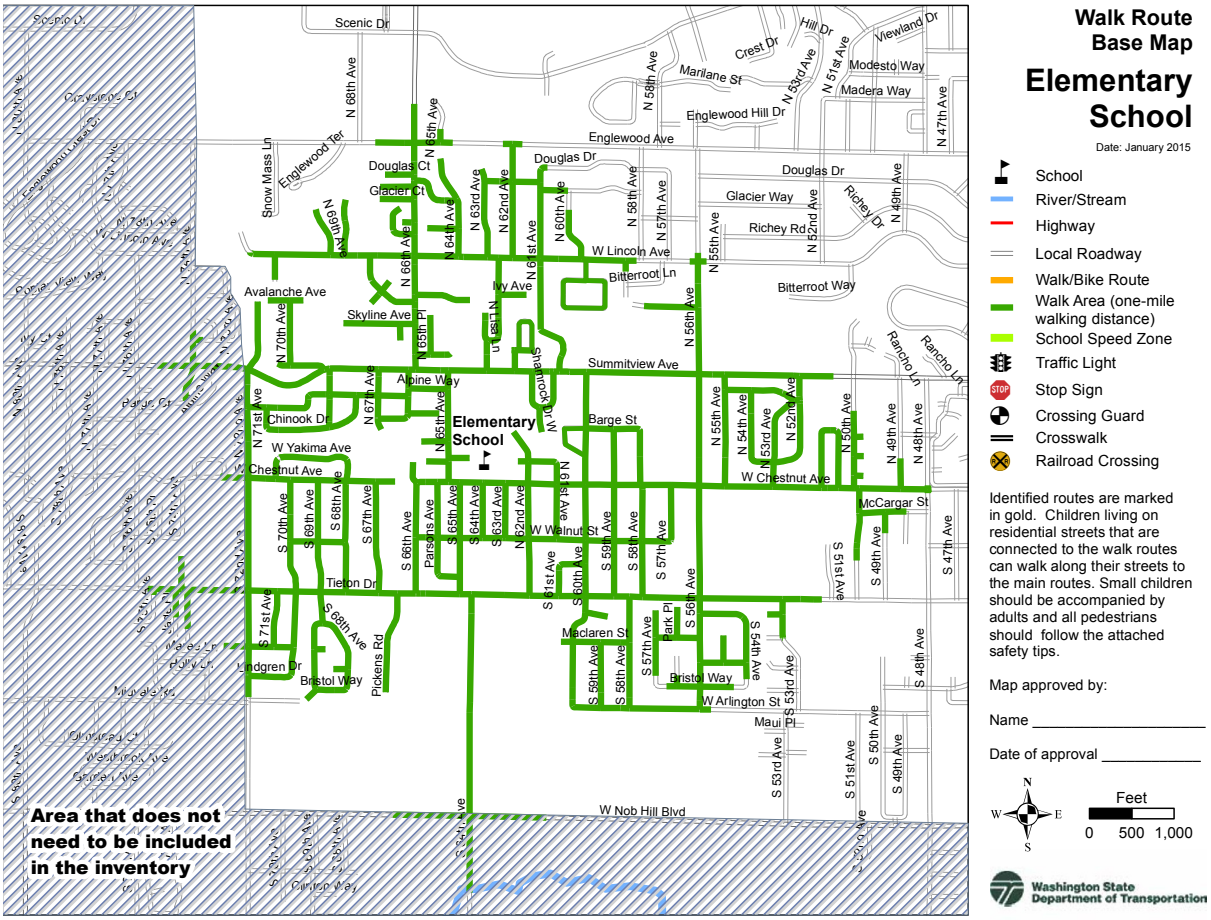


Figure 5: *Walk Study Area Map*

This map shows areas that have been eliminated from the base map because they are outside of the school attendance boundary or where there are no students. The remaining streets will be evaluated for use as school walk routes. Eliminate such areas from the base map before conducting the walk inventory.

transportation department's routing software has the ability to pin-point the addresses of each student attending the school, and prepare accurate maps that include the one-mile walking distance area.

Work inward toward the school. Do this during the morning commute to school times so you will be able to include traffic volume and motorist behaviors in the assessment. Consider using a walk or bike audit tool to help identify issues and concerns. A selection of walk and bike route assessment tools is available on line (www.saferoutesinfo.org/program-tools/assessing-walking-and-bicycling-routes). During the field inventory, collect and record the following information:

- stop and yield signs;
- traffic signals, pedestrian signal indicators, traffic signal timing and phasing for pedestrian crossings;
- marked crosswalks;
- number of traffic lanes;
- parking areas and restrictions;
- posted speed limits, including the school zone speed limit signs and the type of school zone signage;
- warning signs;
- crossing guard or school safety patrol locations;
- railroad tracks, including the number of tracks and type of crossing protection;
- medians, pedestrian refuge islands, and other pedestrian safety features;
- sidewalks, pedestrian paths, and shoulders, noting:
  - condition and width of sidewalks and shoulders

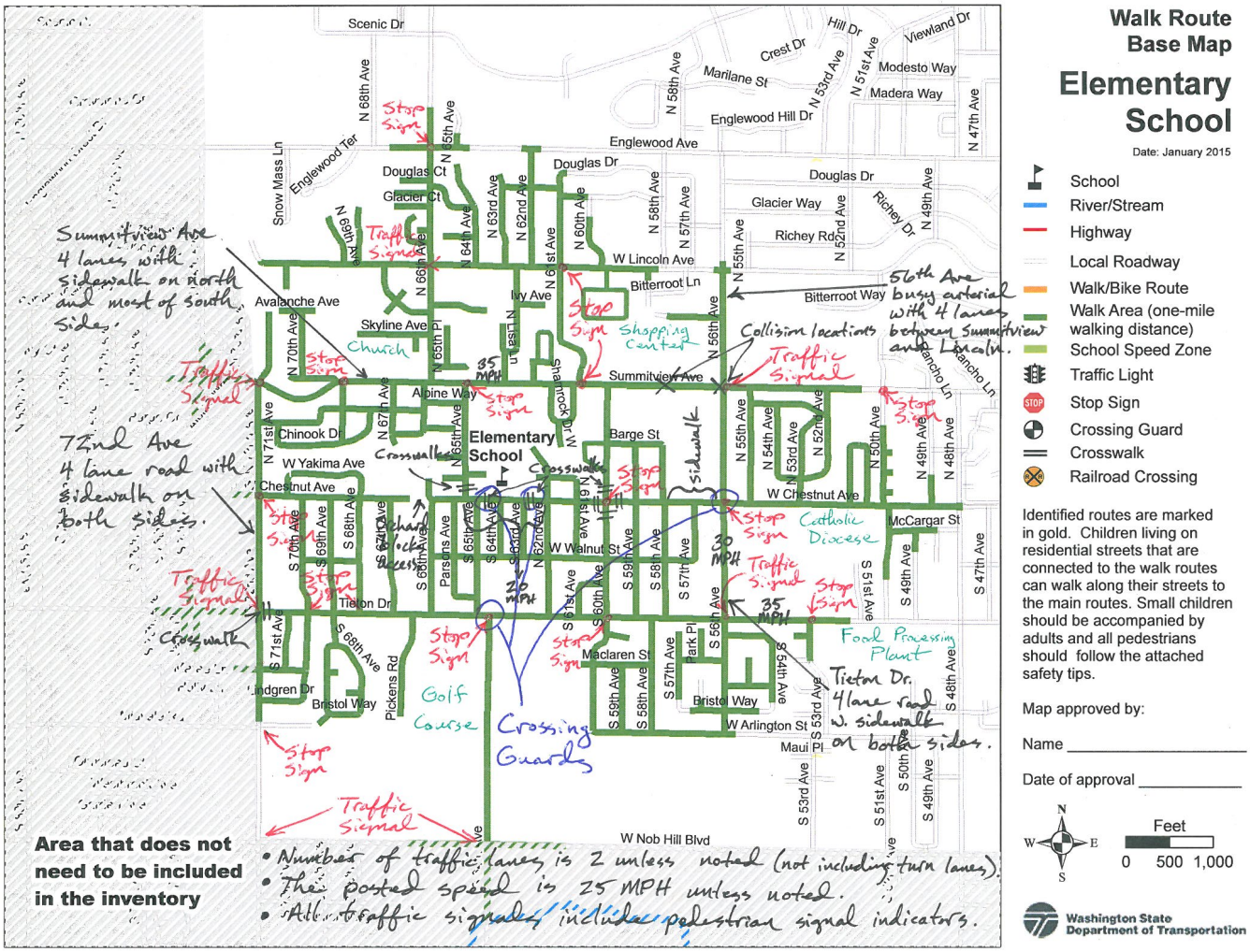


Figure 6: *Walk Inventory Map*

This is a base map with the inventory of existing walking conditions noted on it.

- shoulder material (paved, gravel, grass, non-existent)
- distance of walkway from traffic or existence of planting strip or other means of separating pedestrians from moving traffic
- the location of drainage or irrigation ditches

- high noise areas and other environmental obstructions to safe walking;
- major line of sight obstructions as measured from the height of a child;
- bicycle lanes; and
- other relevant pedestrian safety factors observed in the field, such as commercial businesses that may use environmentally hazardous chemicals.

Check with the local public works department to see if some of the information listed above can be obtained from their records before beginning the inventory. They may also have equipment that could help collect the needed information. Work with them to identify streets with:

- high volumes of vehicles
- planned road improvements

Consider the type of traffic that travels streets within the walking area. Heavy truck traffic along the walk routes poses safety concerns because large trucks require a greater turning radius, block large areas from view while parked, and need greater distances and time to stop. Truck drivers may also have a greater difficulty seeing students immediately in front of, alongside, or behind their vehicles. Therefore, note the streets that carry heavy truck traffic and avoid routing students along or across these streets, whenever possible.

It is important to also observe and evaluate driving behaviors along the walk route. Make note if any of the following driving behaviors are consistently observed along your walk routes:

- speeding along walk route
- speeding in school zone
- u-turns (middle of road, turning into private driveways)
- parking too close to or on crosswalk
- parking on shoulder when it blocks walking path
- parking where it blocks sight distant at crossing points
- failure to stop for pedestrians waiting to cross
- vehicles encroaching on crosswalks before pedestrians are one and a half lanes away
- inattentive driving
- school parking lot congestion
- vehicles parking in the bus pick-up and drop-off zone
- vehicles lined up in the street at drop-off and pick-up times

Work with the local law enforcement agency to determine if they have any information on the list above or regarding other safety concerns near the school walking areas. Other concerns could include:

- drug-trafficking activities
- areas with a history of illegal or violent activity
- registered sex offenders living or working along the routes
- reports of dangerous dogs along the route
- collision locations and any known pedestrian safety concerns

Document Safety Improvement Needs

Be sure to keep a record of safety improvement needs identified during the inventory. Step 4 will detail a process for addressing safety issues.

Step 2: Identify the Walk Routes

Armed with information gathered from step one, it is time to begin choosing the actual routes students should take between their neighborhood and the school. Plot possible walk routes on fresh copies of the "base map" (the clear, concise map used in Step 1), using sequential arrows indicating the direction of walking and the side of the street to be used. Consider that children walk from their neighborhoods to school, and then from school to their neighborhoods, noting different routes for coming and going if conditions require.

The objective in selecting a school walk route is to minimize roadside and roadway crossing conflicts to the extent possible. When choosing routes, remember that children may have to walk farther in order to follow the best route, but avoid making a child walk more than a block or two out of their way or they will likely ignore the selected route.

Guidelines for Choosing the Route

Use the guidelines below to help make decisions about selecting the route, choosing routes children are already using wherever it is safe. Seek professional judgment to help at locations that seem questionable.

Form Children into Groups: Develop walk routes that form children into groups of larger numbers so they cross the streets together. More children at a crossing helps increase driver awareness and increases driver compliance with crosswalk laws. If large numbers of children will be gathering at crossings, choose intersections that provide the best refuge (large shoulders or sidewalk areas) while they are waiting to cross.

Use Sidewalks, Wide Shoulders: Select routes that use sidewalks or paths, where available. Direct students to walk on the left side of the road, facing traffic on streets, when there are no sidewalks. As a rule of thumb, have students walk the shortest possible distance on streets without sidewalks or wide shoulders. Since this situation can be cause for concern, if no sidewalk or adequate shoulder exists, please see, "Shoulder/Sidewalk Considerations," at the end of this discussion.

Select Least Hazardous Roads: Direct the walk route along the roads with the slowest speeds, the lowest traffic volumes, and the least number of trucks. Use information gathered from the public works departments to determine this, as well as information gathered from a visual inspection.

Consider Easements and Shortcuts: Use easements with walkways through parks or other available areas only after evaluating safety. Check

the information from the local law enforcement agency to ensure that the area is not known for drug trafficking or other illegal activity. Physically walk the route to ensure no other concerns are present on the route. Do not recommend a "student short cut" through private property unless arrangements such as a public easement can be made to allow it.

Select the Least Hazardous Crossing Location: Determine the safest place for children to cross the street by visiting each potential crossing location. Watch traffic during school commuter times to determine if natural gaps in traffic occur more frequently at one location over another. Consider what can actually be observed about visibility, speed, and parking conditions, as well as hard information already gathered when making your choice. Avoid using crossings where roadway curves interfere with sight distance. Choose a place free from shrubs, parked cars, or other obstacles that would interfere with the pedestrian's view of traffic and the driver's view of pedestrians. Choose the crossing location that offers:

- lowest traffic speeds and volumes,
- least amount of heavy truck traffic, and
- best sight distance.

Maximize the Use of Existing Pedestrian Crossing Protection:

Whenever possible, direct students to cross at intersections that have existing stop signs, marked crosswalks, traffic signals, pedestrian signals, or school safety patrol posts. Check that signal timing and displays are adequate for children's skills and speed. Recommend the use of the school safety patrol to complement existing crossing controls within the school zone, if necessary.

Limit the Number of Crossings: Limit the number of crossing points within the school zone. Minimizing the number of crossings will help group children together for crossing and provide less exposure to potential conflicts with vehicle traffic. Driver awareness and compliance are also increased by keeping the number of school zone crossing points to the least number possible.

Avoid Mid-block Crossings: Mid-block crossings should be designated only if they are either signalized or supervised by an adult member of the school patrol. Proper pedestrian crossing signs and enforced curb parking restrictions are necessary to assure sufficient visibility in a mid-block crossing area.

Consider Hours of Darkness, Inclement Weather: Children will be walking routes during dark hours of the morning in winter: consider selecting streets that have lighting. Remind parents and children to wear light colored or reflective clothing when walking at dawn or dusk and in inclement weather. Remember that rain, hail, sleet, and snow change sight distances and stopping requirements for vehicles.

At the School, Keep Pedestrians Separate From Traffic: Carefully select the location where the walk route terminates at the school. Keep it well separated from car and bus loading and unloading zones and direct students around parking lots, never through them. Cars backing out of parking spaces may not see children behind them.

Shoulder/Sidewalk Considerations

A concern raised by many tasked with designing school walk routes is how to route children along streets and roadways which do not have adequate shoulders or sidewalks. In such cases, there is often a choice between directing the children to cross a road to walk facing traffic on a shoulder or sidewalk or to direct them to walk a short distance along the road with their backs to traffic. This decision must be made on a case-by-case basis, taking into consideration the age of the children, the width of the roadway, the volume and speed of traffic, sight distances along the roadway and at crossing points, and the walking distances involved. In general, consider the following:

Sidewalks: Direct students to walk on the sidewalk. On roadways with sidewalks on only one side, students should be directed to cross at the safest crossing to get to the available sidewalk.

No Sidewalks, Shoulders Same Width on Both Sides: In general, on roads without sidewalks students should be directed to walk facing traffic. This allows them to observe on-coming vehicles and move as far to the left, away from traffic, as they can. However, students may be allowed to walk on the shoulder on the side of traffic for a short distance if it significantly reduces the number of road crossings they must make.

Adequate Shoulder on One Side, No Shoulder on the Other: Another situation exists when, as on some suburban and rural roads, one side of the roadway has an adequate (at least five feet wide) shoulder, but a narrow or no shoulder on the other side. In these situations, the walk route designer must decide whether it is better to have children walking on the shoulder with their backs to traffic or to direct them to cross the road and walk on the road or the narrow shoulder facing traffic. For help deciding, consider traffic volumes:

- On roads with moderate or high traffic volumes, walking on a five-foot shoulder in the same direction as traffic flow would probably be better than walking in the traffic lane facing on-coming traffic without a safe refuge to retreat to when meeting a vehicle.
- On low volume roads, where drivers will have more opportunities to encroach into the other lane of traffic to avoid pedestrians, it may be better to direct the students to walk facing traffic, even if it means walking on the roadway. In general low traffic volumes are less likely to result in drivers meeting oncoming vehicles and pedestrians at the same time.

School Bike Route Map

A school bike route map recommends a biking route to school based on similar considerations to those used for identifying walk routes, and will often be the same routes. A bike route should seek routes that have low traffic volumes and speeds, dedicated space for children to ride, such as a bike path or lane, and minimal complex intersections and driveways.

Hazardous Conditions

This section includes a list of conditions that can be used to help designate a hazardous walk or bike location, in which children need to have some other means to get to school. It is not meant to be all inclusive.

There is no universally accepted definition of what makes one walk route safe and another hazardous. Roadways that do not meet the criteria below should not automatically be considered safe: There are a variety of conditions which when combined result in situations which present a high safety risk for walking and biking. Use professional judgment to evaluate safety in locations that do not have the following roadway conditions, but do have other concerns. If any one of the following conditions exist along a route to school it is grounds for that part of the route to be identified as a potentially hazardous location:

1. A roadway with a posted speed of 45 mph or greater where there is not a separated area for children to walk along. On high speed roads, a separated walkway should include at a minimum, a curb and three-foot buffer zone.
2. An uncontrolled crossing location on a roadway where the number of vehicles on the road exceeds the rate of 750 vehicles per hour when children are going to or from school. For purposes of this subsection an “uncontrolled crossing site” is an intersection or other designated crossing site where no crossing guard, traffic enforcement officer, stop sign, traffic signal, or other traffic control is present during the times students walk to and from school.
3. An uncontrolled crossing location where conditions would not allow a motorist to see a pedestrian in time to stop and allow them to cross safely (including consideration of the width of the roadway, typical vehicle size, and posted speed limit).
4. An uncontrolled crossing location where children would have to wait 3 to 4 minutes before there is a big enough break in the traffic to allow them to cross safely, (including consideration of the width of the roadway and the posted speed limit).
5. An un-signalized crossing location on a roadway with more than 12,000 vehicles a day, four or more travel lanes, and a speed limit of 40 mph or more.

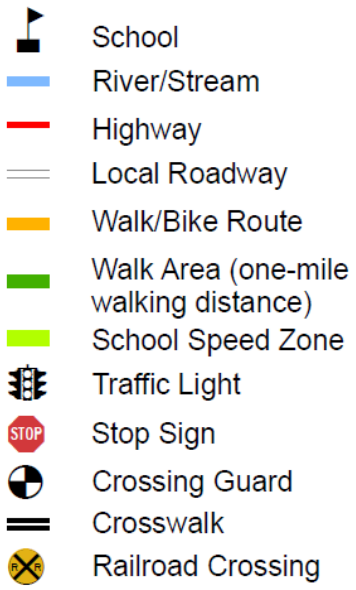


Figure 7: *Symbol Key for School Walk Route Map*

6. Any crossing with six or more lanes, including multiple turn lanes.
7. Highways where pedestrians are not allowed.

Conduct a Final Check

After completing a draft version of the walk route on a base map, "field check" the route one more time, walking the selected route while keeping in mind a child's viewpoint (36 inches above the ground). Crouch down at intersections to ensure a child's sight lines are unobstructed. Also, consider a driver's vantage point in terms of the walk route and the visibility of students to drivers. Consider "field checking" the route by walking the route with a few children.

Include community partners in the final review process. At the very least, ask the school principal, the law enforcement agency, and public works department to review the information. Consider including the PTA (PTO) and asking a trial set of parents and students to try out the instructions and follow the route. Depending on how the walk route program is set up in the district, the routes may need to be approved by the superintendent, the school board, or their designated representative. Incorporate review comments into the final school walk route map and instructions.

Work with local transportation engineers to be sure that all signals, signs, and crosswalks are functional and in the proper location. Note if vegetation needs to be cleared from signs, if lights need to be replaced, or if crosswalks need fresh paint and contact the traffic engineering or public works department to notify them if this is the case.

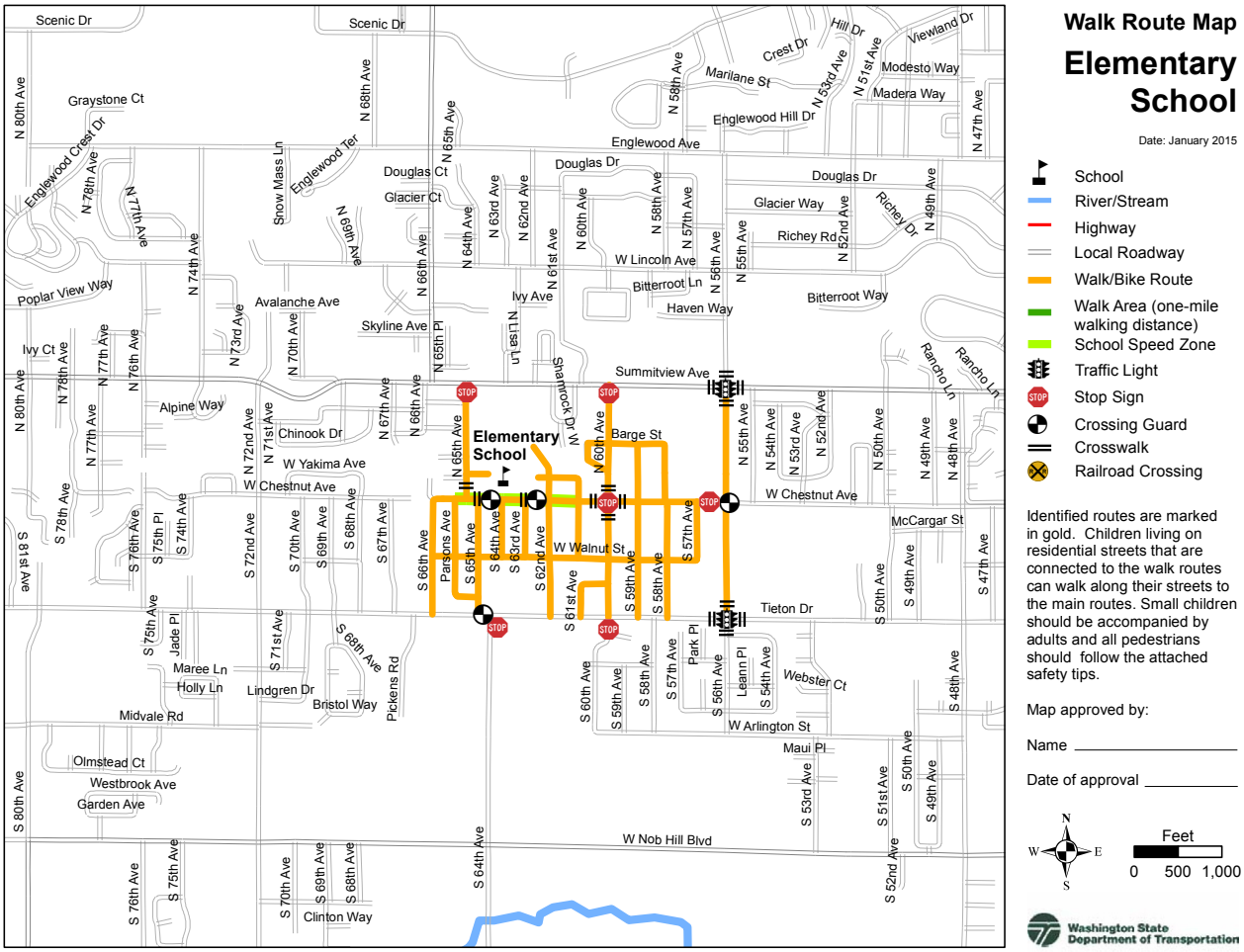


Figure 8: *School Walk Route Map – Here's a sample of what the final school walk route map will look like. It's clear and simple, and should be easy for students and parents to understand. Combined with a letter to parents (see page 29 for a sample letter), a map like this is ready to be distributed once it has been approved.*

Make a Map

Now that the route to school has been selected, create a map that presents the route to school in a clear and concise manner. Once this map has been approved, this is the map that will be distributed to students and parents. Figure 8, on page 27, shows a route to school map that is ready to be distributed.

Start with a fresh base map and indicate the selected route to school. Use arrows, colored lines, different line weights, or other means to illustrate clearly the selected route and the direction of travel along the road. Keep the map simple and uncluttered. Be sure to indicate which side of the road to walk along coming and returning for those roads without sidewalks or adequate shoulders on both sides.

Along with the selected routes, the map should illustrate features along the walking route that walkers need to pay attention to, such as:

- the school
- crosswalks
- traffic control devices (traffic lights, stop signs)
- adult and student safety patrol posts
- other important features such as railroad tracks and crossings

If fitting all of the routes on one map makes the map too complicated, an alternative is breaking the map into sections and producing several different maps, one for each neighborhood or direction of travel.

Step 3: Distribute the Maps

Decide exactly what will be expected of students and parents before distributing the maps and instructions to them. If parents will be asked to return a form saying they've received the map, establish a system to ensure that the returned forms are received. Establish a contact person to whom parents can report any concerns that they observe along the walk route, and who will keep parents updated on how the concerns are being addressed.

Distribute maps at the beginning of the school year to inform parents about expected driving behaviors in the school zone and to tell them about any school parking lot regulations the school has established.

Explain drop off and pick up locations and times, if necessary. Provide this information to all new students enrolling in school after the start of the school year.

Provide necessary translation for non-English speaking students and their parents.

Each map should be sent home with a letter that explains the map and provides instructions on how to use it. Mention any particular features of the walk routes, such as safety patrol posts and the importance of following the patrol's instructions for crossing the street. Ask parents to review the map with their children and walk the route with them at least once, pointing out to children any potential concerns such as business driveways, alleys, railroad tracks, or other features. Include pedestrian safety rules, such as those in Chapter 4 on page 23, and ask parents to review the rules with their children. The letter should direct parents to tell their children to use the same route each day. It can include a tear off signature slip for parents to sign and return to school indicating they received the map, discussed it with their children, and walked the route together. A sample letter is shown in Figure 9 on page 29, Sample Walk Route Instructions.

The Washington Traffic Safety Commission produces a School Zone Safety Curriculum Kit and Resource Guide (LINK) which contains the Parent's School Zone Safety Tips handout (available in seven languages). The start of school may be a good time to use this handout or another tip sheet reminding parents to drive slowly near school and stop for students and other pedestrians crossing the street.

Whether school walk routes and instructions are sent home with students or mailed directly to students' homes, there are many ways school administrators and teachers can help ensure that students understand the importance of following the suggested route to school. Here are some ideas to best ensure the directions are followed:

- The principal can hold a special "walk to school" day in the fall where he or she meets with students as they leave their neighborhoods and walks with them to school following the map. The first Wednesday in October is International Walk to School Day (LINK).

Figure 9: *Sample School Walk Route Instructions, letter to parents.*

Dear Parents:

Walking to school each day will help your child meet the daily physical activity requirements of 60 minutes a day which will t keep your child healthy, fit, and ready to learn. Children who walk to school also help minimize parking lot congestion at our school. We have developed this school walk route to encourage walking and safe pedestrian behaviors.

This school walk route map shows the recommended route for your child to use walking to and from school each day. You will be able to find the suggested route between your neighborhood and the school by following the arrows. Mark the route from your neighborhood to the school with a colored pen or crayon.

The walk route plan has been developed based on traffic patterns and traffic controls such as crosswalks, stop signs, traffic lights, and safety patrol posts. The route limits the number of street crossings children will make and seeks to group children together to increase their visibility and safety. Therefore, the route may not be the shortest way to school, but it is important that children follow the route, even if they have to walk a little farther to do so.

Please help your child become familiar with this route by walking it together. Teach your child to cross the street only at the locations indicated on the map. Practice good pedestrian behaviors with your child when walking the route together by following these safety rules:

- Do not cross the street without supervision if you're younger than ten years old.
- Stop at the edges of driveways, alleys, and curbs or edges of the street where no curb exists and look left, right, and left again for vehicles before crossing the street.
- Walk; don't run, across the street.
- Cross at intersections, using traffic signals and crosswalks whenever possible.
- Walk on the sidewalks and trails when they are available, or if it is safe and you must walk on the side of the road, walk on the edge, facing traffic if there is no sidewalk.
- Make sure drivers see you before crossing in front of them. Always attempt to make eye contact.
- Do not play in driveways, streets or by the side of the road.
- Wear highly visible clothing or reflectors when walking in the dark and use a flashlight.
- Cross at least 10 feet in front of a school bus or other large vehicle.
- Always attempt to make eye contact.
- Don't walk while texting or e-mailing
- Be aware of your surroundings, avoid wearing hoods or hats that restrict vision, wearing earphones and listening to loud music.

Safety patrol members will be posted before and after school at the crosswalks as indicated on the map. Remember to tell your child to follow the patrol member's instructions.

This route will be reviewed yearly and may change as conditions along the route change. Please contact (contact person's name for your school) if you have any concerns regarding the walk route. Together we can work to make your child's walk to school an enjoyable part of his or her day.

Sincerely,

Your Principal and PTA (PTO)

Return to your child's teacher:

I have received the school walk route map and discussed it with my child. I understand that this route does not ensure nor guarantee the safety of my child while walking to and from school, but is provided as a recommended walking route based on a review of traffic and road conditions in the area. Parent or guardian signature

Date: _____

- Teachers can help students identify the route on the map that they will take from their home to school and mark the way in a bright color on their map.
- Teachers can have each student create a map of their route to school as a project. (Even students who ride buses can participate in this activity.) Students should show they understand the suggested route to school and can develop their own set of symbols to note landmarks on their maps.
- Teachers can use the maps to launch their student pedestrian safety education unit, highlighting the reasons children must follow the route and cross the streets only at the locations specified.

Step 4: Work with Community Partners to Make Safety Improvements.

Begin with the list of concerns documented during walk route development and from parent reports. Solutions to walk and bike route safety concerns usually fall into four categories: education, encouragement, enforcement, and engineering. Some of the best solutions use all four. That is why it is so important to work on finding solutions with a broad-based community partnership approach. (Please see Chapter Three, "The Partnership Approach to Student Pedestrian Safety," for a full discussion to identify and work with community partners.) These efforts are where the local champion can be most effective in helping to improve walking and biking options for children.

Education Solutions

A student pedestrian and/or bicycle safety educational program that recognizes childhood limitations and seeks to teach young students safe and responsible pedestrian and/or bicycle behaviors will go a long way toward improving safety along a school walk or bike route. This section provides an overview of the elements that constitute good pedestrian and bicycle safety education programs. For more information, please see Appendix A, "Ideas and Resources for Student Pedestrian and Bicycle Safety Improvements."

For both pedestrian and bicycle safety education, the most effective programs progress from supervision of the child by others to the development of individual responsibility for one's own safety. Adults, both parents and teachers, must initially furnish a safe environment for young walkers and bikers, while simultaneously providing varied, real-life experiences until the young pedestrian or bicyclist can assume responsibility for him or herself in a mature and safe manner. At the school level, a continuing program of education on pedestrian safety can establish good walking behaviors that can last a lifetime.

In many districts, pedestrian and/or bicycle safety occurs as part of the injury prevention component of the adopted health curriculum or in physical education classes. Skills taught for safe walking and biking can be a separate unit or may be included with bus safety or covered during personal safety units. Both pedestrian and bicycle education can also be taught outside of school as a part of a community program or service.

Elements of a Good Student Pedestrian Safety Education Program

Student Pedestrian Safety Education: Pedestrian safety education should be a district priority for all elementary students. As a starting point include a strong curriculum for children in kindergarten through third grades, and a review program for children in fourth through sixth grades. In schools that allow fifth and sixth grade students to serve as safety patrol members, the training provides a good review of pedestrian safety rules.

Strong, well-designed student pedestrian safety education programs should equip children for independence by helping them create a "safety consciousness" that effectively guides their behaviors throughout many real life traffic situations. Programs should teach children to:

- identify hazardous situations,
- assess problems accurately,
- calculate the risks involved, and

- respond in an efficient and safe manner.
- understand the health benefits of walking

Children should learn and practice good habits. They should also be prepared to respond to a dynamic situation, such as what to do if a car comes down the street after they've already started to cross or if the signal changes while they are in the crosswalk.

Ten Pedestrian Rules to Teach Children: Children should know and practice the following ten pedestrian safety rules:

- Do not cross the street without supervision if you're younger than 10 years old.
- Stop at the edges of driveways, alleys and curbs or edges of the street where no curb exists and look left, right and left again for vehicles before proceeding.
- Walk; don't run, across the street.
- Cross at intersections, using traffic signals and crosswalks whenever possible.
- Walk on the sidewalks and trails when they are available, or if it is safe and you must walk on the side of the road, walk on the edge, facing traffic.
- Make sure drivers see you before crossing in front of them.
- Do not play in driveways, streets, or by the side of the road.
- Wear highly visible clothing or reflectors when walking in the dark and use a flashlight.
- Cross at least ten feet in front of a stopped school bus or other large vehicle. Always attempt to make eye contact with the driver.
- Be aware of your surroundings; avoid wearing hoods or hats that restrict your vision. Don't walk while texting or e-mailing, wearing earphones and listening to loud music.

Cover In-Depth Issues:

In addition to the basic safety rules, a good pedestrian safety educational program will teach children to handle an array of possible situations and provide in-depth study of proper pedestrian behaviors, such as:

- Watch for vehicles turning into or backing out of parking spaces or driveways.
- When stopped at the curb, if a vehicle or other object is blocking the view of on-coming traffic, children should stop at the outside edge of that object before crossing at a street corner or crosswalk.
- Be extra cautious about looking for oncoming traffic before entering a crosswalk from between parked cars or from behind bushes,
- Do not dart out into the street. ("Darting out" accounts for more than half of all childhood pedestrian injuries.)
- Make sure that all vehicles have stopped before crossing the street.
- Attempt to make eye contact with drivers of stopped or turning vehicles, but do not assume that the drivers can see you.
- Cross directly, never diagonally.
- Learn the meaning of all traffic signs and markers such as pedestrian crossing signals and crosswalks.
- Learn how to cross at corners when crosswalks are not marked.
- Never enter the crosswalk when the "don't walk" signal is flashing but that if they are already crossing that they should continue to the other side.
- Be extra careful in rain or snow. Allow extra time and distance for vehicles to stop.

Student Bicycle Safety Education:

As with pedestrian safety education programs, comprehensive student bicycle safety education programs should instill a "safety consciousness" that effectively guides their behaviors through various traffic situations. However, before encouraging children to ride to school, they should be able to demonstrate the following bike handling skills:

- Ride in a straight line.
- Ride in a straight line while scanning the situation ahead, behind and to the side.
- Stop quickly using the bicycle's brakes without swerving, falling or colliding with anything.
- Swerve in a controlled manner to avoid a hazard or collision.

School Walk & Bike Routes:

Once children can demonstrate these skills, the National Safe Kids Campaign recommends teaching the following bicycle safety rules:

- Wear a bicycle helmet on every ride.
- Ride so drivers and other cyclists can see you.
- Look both ways for oncoming vehicles before turning or crossing a street. Go only when it is clear.
- Watch out for and avoid potholes, cracks, rocks, wet leaves, storm grates, railroad tracks or anything that could make you lose control of your bike.
- Make sure your bike fits your height, weight and age and is properly adjusted.
- Inflate tires properly.
- Check brakes before riding.
- Bikers should ride behind one another and with the flow of traffic.

A more in-depth bicycle safety education program will cover the following skills, as identified in the Safe Routes to School Guide (saferoutesinfo.org):

Preparing for the ride

- Dress appropriately. Wear brightly colored, close-fitting clothing. Tie your shoes and secure long laces and loose pant legs. Do not wear headphones.
- Wear a properly fitted helmet.
- Ride a bicycle that fits. When seated on the bicycle, both feet should be firmly planted on the ground and hands should reach the handlebars.
- Ride a bicycle that is in good condition. Tires should be firm, brakes should prevent tires from rotating when pushed, chain should not droop or be rusty, and the seat and handlebars should be tight.
- Do not carry anyone else on the bicycle. A bicycle with one seat is a bicycle for one person.
- Do not carry anything in your hands. Use a backpack, basket or panniers to carry school supplies and books.
- It is best to ride only in daylight. If riding when it is dark, use headlights, taillights and reflectors, and wear bright clothing with reflective material.

During the ride

- Choose the route with the fewest streets to cross. Avoid busy and high-speed streets.
- Before entering the street, look for other vehicles to the left, right, in front and behind.
- Keep paying attention to your surroundings. Watch for other vehicles and hazards, such as potholes and parked motor vehicles, along the route.
- Watch for vehicles turning into or exiting at driveways.
- Stop at all intersections, and check for traffic before crossing. When possible, cross at locations where adult school crossing guards are present. It may be best to dismount and walk your bicycle across large or busy intersections.
- Ride in a straight line with two hands on the handlebar unless signaling.
- Follow all traffic laws, including:
- If riding in the street, ride in the same direction as motor vehicles, on the right hand side of the street, about two or three feet from the edge.
- Use hand signals when turning and stopping.
- Obey traffic signs and signals.
- Always check in front and behind for traffic before changing lanes, crossing intersections or turning.
- If riding on a sidewalk or path, ride slowly and be prepared to stop quickly.
- Yield to pedestrians.

Educate the Parents:

Provide information to parents about their responsibilities to model good pedestrian behaviors. If a school has developed drop-off and pick-up areas, or other parking lot or school zone procedures, make sure parents are reminded of what is expected of them. If bad driving behaviors plague the walk route, educational outreach to parents often goes a long way toward improving behaviors. Figure 10, “Solving Unsafe Driving Behaviors,” on page 35, provides an example of a low cost solution to

improving safety in the school zone through an education campaign.

Encouragement Activities

Another key factor in making walking and biking safer is to have more walkers and bikers. Crash rates for bicyclists and walkers go down as the number of walkers and bicyclists go up. This does not mean that walking or biking should be encouraged in hazardous locations, but that an important element in safety is the presence of users. When recommended routes to school are identified it is important to take the time to encourage children to use them.

Encouragement efforts should be designed to be fun and generate interest in walking and biking. They frequently overlap education efforts and help children build on the information they have learned by offering supervision and opportunities to provide real time safety instruction. They are part of a comprehensive approach to help children become lifelong walkers and bicyclists. The following is a short list of encouragement activities to consider:

- Walk and Bike to School Day or other special events
- Mileage Clubs and Contests
- Walking School Bus or Bicycle Trains
- Park and Walk Programs

Some parents choose to drive their children to school, even when they live a short distance from school, because they do not feel comfortable allowing their children to walk to school unsupervised or because it seems to save time and/or be more convenient. Two of the biggest concerns that parents report as reasons they don't let their children walk or bike to school are traffic safety and fear of crime. Encouragement efforts like the walking school bus, bike trains, and park and walk programs provide for supervised activities that help ease parent concerns about walking and biking safety.

Parents and children may choose to walk or bike to school for any number of reasons. It may be that they will make the choice because it is good for the health of the children. Walking and biking to school is associated with obesity prevention, improved physical fitness or academic performance, and reduced behavior issues and absenteeism. It is also good for the health of the community. Fewer cars on the street means improved air quality at the school and a reduction in water pollution, climate change emissions, and traffic congestion. In addition, walking and biking is much less expensive than transporting the children by car or bus. Providing information about these positive outcomes may help to encourage parents and children to make the choice to walk or bike.

Determining the best message and the best way to get the messages to the right audience can be done through social marketing. Social marketing is a way to use marketing techniques to inform and encourage behavioral choices like walking and biking to school. More information about social marketing is available at www.social-marketing.org/sm.html.

Enforcement Strategies

Enforcement efforts can go a long way toward improving safety for students along the school walk and bike routes. Visible enforcement efforts remind drivers, pedestrians, and bicyclists to follow the rules. The law enforcement agency should visit the school site frequently and patrol the school routes, giving warnings or tickets to pedestrians and drivers as warranted, Some enforcement activities which contribute to better student pedestrian and bicycle safety include:

- Enforcing parking restrictions near schools to prevent traffic jams caused by illegal parking during pick up and drop off times, ensuring that parked vehicles do not block sight lines for pedestrians or other drivers, and parked vehicles do not block bicycle facilities;
- Strictly enforcing speed limits along the streets near schools and in school zones;
- Use of school speed zone safety cameras;
- Use a Pace Car Program which includes drivers taking a pledge to drive the speed limit or below

based on weather, road conditions and the presence of children along the road, always stop for pedestrians in the crosswalk, and walk when they can. This program basically uses civil obedience to effectively calm traffic. More information about the Pace Car Program is available at www.lesstraffic.com/Programs/

- Enforcing Washington's crosswalk law that requires drivers to stop and remain stopped to allow a pedestrian to cross the road in a marked or unmarked crosswalk; and
- Warning pedestrians to cross at crosswalks and bicyclists to obey traffic laws.

Many law enforcement jurisdictions have established neighborhood "speed watch" programs. These programs are designed to educate, remind, and warn drivers of reduced speed limits in neighborhoods or school zones. The program provides volunteers with a speed limit sign, radar gun, and a speed reader board which displays the approaching vehicle's speed. These activities can be effective in reducing vehicle speeds through school zones and demonstrate another way to build community partnerships.

Engineering Improvements:

Work with local city/county planners, public works directors, and transportation engineers to address needed engineering improvements. A variety of street design techniques can reduce traffic volumes, decrease speed, reduce crossing distances, and improve safety. Some engineering solutions, moreover, don't require large expenditures, such as posting signs, re-timing lights, or repainting crosswalks and bike lanes. While new engineering techniques for improving pedestrian and bicycle safety are continually being developed, the following list provides some examples of techniques that can be used. The countermeasures pertinent to children walking to school also generally apply to children bicycling to school.

Traffic Calming:

Measures designed to reduce traffic volume and speed through a neighborhood are generally called traffic calming measures. The idea with traffic calming is to take a holistic approach to the entire area, not just to move traffic off one street only to impact a different street. Traffic calming measures can include:

- curb extensions
- roundabouts
- curb radius reductions
- modified intersections
- reduced lane widths
- refuge islands
- full medians
- neighborhood traffic circles
- chicanes
- narrowing the width of the road
- speed humps or tables
- traffic diverters, and other barriers to discourage or eliminate through traffic
- raised intersections
- reduce speed limit for cars

Crossing Treatments:

to improve pedestrian and bicycle safety at crosswalks and intersections include:

- curb extensions
- high visibility markings
- enhanced signing
- traffic signals
- speed sensitive signals
- pedestrian scale lighting
- stand back lines
- adult crossing guards
- raised crosswalks
- modified traffic signal phasing and/or timing
- pedestrian activated traffic signals
- bicycle activated traffic signals
- crossing islands
- road diets
- set back stop lines
- parking restrictions at the corners
- restricted right turn on red movement
- countdown pedestrian signals
- in-pavement pedestrian activated flashing lights
- angled crossings

Figure 10: *Solving Unsafe Driving Behaviors*

"School Zone Safety Curriculum Kit and Resource Guide," published by the Washington Traffic Safety Commission, recommends the following steps for dealing with unsafe drivers:

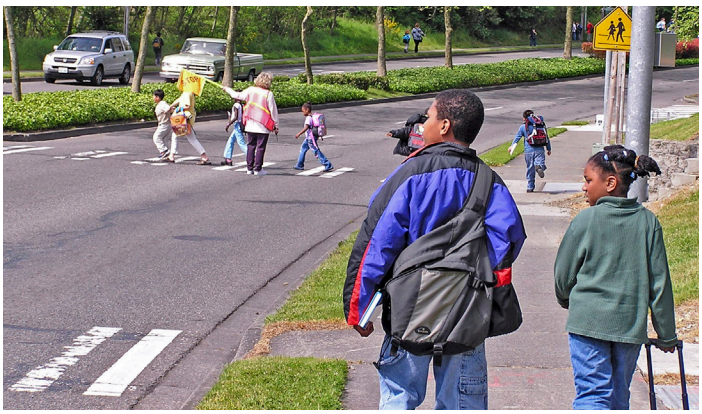
1. Size up the situation. Contact local law enforcement officer. Observe typical problem behaviors and ask for advice.
2. If many of the unsafe drivers are parents, conduct a parent education outreach. The "School Zone Safety Curriculum Kit and Resource Guide" contains, "Parents' School Zone Safety Tips." This master, which comes in English and six other languages, is designed to be copied and sent home to parents. It reminds them of the laws: 20 M.P.H. in a school zone, stop for pedestrians in crosswalks, stop for school buses. It can be used to launch an educational campaign.
3. Develop a plan for confronting unsafe drivers. An adult staff member could let a driver know when he has broken a rule. The adult should approach the driver (when stopped) and describe the problem: "You stopped in the crosswalk to let your child out of the car," and the desired behavior: "Next time please let your child out in our designated drop off area. When drivers stop on or near the crosswalk it creates a hazard and makes it hard for me to safely cross the students who walk." It is important to let drivers know when they didn't follow the rules, whether they broke a law or just school policy. By confronting the problem driver you let other drivers know what is not acceptable.
4. Work out an enforcement plan with a law enforcement officer. In many areas, adult patrol members or other staff members fill out a report on unsafe drivers that lists the license plate number, the car description, the day, and the time; and describes the problem behavior. If a car is speeding through the school zone and is not a part of the school community, this method may be the only way to reach the driver. The report is sent to the officer who checks that the license and vehicle description match and then sends a letter to the registered driver regarding the complaint. If the officer receives a second complaint with the same vehicle, then the officer makes personal contact with the vehicle's owner to issue a warning.
5. Communicate with parents again. Send another letter home to parents describing the ongoing problem and letting them know what measures are being taking to solve the problem. Let them know who has been assigned to talk with unsafe drivers and that the school will be sending reports to law enforcement.
6. If these steps do not improve driver behavior, ask the district law enforcement officer to make his presence known before and after school. Consult with the local jurisdiction's Public Works Department to see if an engineering improvement may help.

Bicycle Improvements:

In addition to those countermeasures listed above (traffic calming and intersection treatments), dedicated facilities for bicyclists can improve the safety and desirability of bicycling to school. Bicycle facilities generally fall into the following categories:

On-Road Bicycle Facilities

- Bike Lanes
- Shared Roadway Markings



- Contra-flow Bike Lanes
- Wide Curb Lanes
- Paved Shoulders

Shared Roadway Treatments

- Shared lane pavement markings
- Roadway surface improvements
- Driveway and intersection improvements
- Reduced lane widths or lane numbers

Trails/Shared Use Paths

This partial list of possible engineering improvements is provided only to give an idea of what type of treatments might be available to address a particular concern. A traffic engineer can discuss what treatments would provide the best solution and be the most cost effective. A list of guidance documents for engineering improvement can be found in Appendix D.

Making Improvements:

Go over the documented concerns with your community partners. Discuss the best education, encouragement, enforcement, and engineering solutions. Seek to implement the easy fixes right away. Decide who will study solutions to the more complex problems and set a timeline for these solutions to be presented.

Be sure to contact elected officials, seek their support for the project, and keep them informed as the project progresses. Local elected officials usually give preference toward funding projects with broad, visible community support.

Publicize proposed solutions to the community and seek their input. Public input on proposed solutions to pedestrian and bicycle safety concerns is an important step in continuing the cooperative effort. Community comments are especially useful for capital improvements such as new sidewalks—which benefit the entire community, not just school children.

Local support for a program can come from parent-teacher organizations, school district health programs, local law enforcement agencies, city public works departments, county traffic departments, emergency medical services, local hospitals, public health officers, bike clubs, and other local, non-profit organizations with a focus on prevention.

State and regional resources are also available. The Washington State Department of Transportation, Safe Routes to School Program; Washington Traffic Safety Commission; and Department of Health are just some examples of state agencies with funding and resources that are available at little to no cost. Appendix A, “Ideas and Resources for Student Pedestrian and Bicycle Safety Improvements,” contains a complete list of state, regional, and national resources, as well as suggestions of where to find help in your local community.

Funding:

Funding school pedestrian and bicycle safety improvements takes an innovative and concerted effort to seek funds from as many sources as possible. Funding considerations involve setting priorities, matching needs with special purpose grant programs, and programming general transportation funds for pedestrian and bicycle safety improvements in the most cost-effective manner.

If school walkways and bikeways are a priority for the community, a portion of the local transportation budget could be allocated for these types of projects. In some jurisdictions, as much as one-third of the transportation budget is funded by property tax revenues. The safety benefits of pedestrian and bicycle facilities can have a real dollar benefit to the community through fewer injuries which result in lower medical and health care costs and lower insurance premiums for community members.

Considering the rapidity of change in transportation funding, explore as many options as possible for tapping a variety of sources, such as Washington State Department of Transportation grant programs, Washington Traffic Safety Commission, County Road Administration Board, Transportation Improvement Board, metropolitan planning organizations, and local health and safety organizations. (Please refer to Appendix A, “Ideas and Resources for Student Pedestrian and Bicycle Safety Improvements,” for a list of potential funding resources.) If funding for engineering related walk and bike route safety concerns is not immediately available, provide a list of the needed improvements to local city/county planners to be included in community comprehensive plans.

School districts are allowed to use student transportation funding for transportation services for children living within one mile of school. Transportation services include the coordination of walk-to-school programs, the funding of crossing guards, and matching funds for local and state transportation projects intended to mitigate hazardous walking conditions. Priority for transportation services shall be given to students in grades kindergarten through five. (RCW 28A.160.160(4).

An Example: The City of Bellevue's School Crosswalk Enhancement Project provides an example of how education, enforcement, and engineering solutions can improve safety in a school zone. In a two-year project, the city worked with schools to identify traffic concerns. The first year of the project focused on changing driver behaviors through education programs, enforcement activity, signing, and pavement marking. In the second year, physical engineering improvements were installed if the problem behaviors had not improved. At Somerset Elementary and Bennett Elementary the city installed raised crosswalks, curb extensions, and bollards. At both schools there was a history of drivers speeding through the school zone and parking on or near the crosswalks. The raised crosswalk acts like a gentle, smooth speed bump to reduce vehicle speeds and to make students more visible as they cross. Curb extensions, or curb bulbs, bring a semicircle of sidewalk out into the crosswalk. This shortens the pedestrians' crossing distance and eliminates parking on or near the crosswalk providing an unobstructed view for the pedestrians. The bollards (three foot posts) are positioned back from the edge of the curb extensions to keep pedestrians a safe distance back from the road. Plaques were installed on the bollards with tips on how to safely cross the street. These improvements reduced average speed through the school zone and eliminated parking near the crosswalks, making a safer pedestrian environment.

Step 5: Evaluate and Repeat

Programs should be evaluated after the maps have been distributed to the students and parents to determine whether students and parents are properly using them. This evaluation can be conducted through direct observation, through a phone or web-based survey, through a written feedback form, or some combination of these.

Observational Evaluation:

Station evaluators along the routes to school at both school start and end times for direct observation. Have the evaluators watch the children as they walk and note whether or not the recommended routes are being used and good pedestrian safety skills practiced. Evaluators can observe how the student pedestrians interact with traffic. Record the observations, and if needed, make changes to the walk route or conduct further student and parent education.

Surveys

Conduct either a written or a phone survey to obtain feedback. It is not necessary to question every parent and student— a sample of 10 to 25 percent should be sufficient. Written surveys could be mailed out with the maps, or sent later to the students' homes.

Questions to evaluate the walk route map's effectiveness might include:

- Did you receive and understand the school walk route map? Could you read and understand the map? If not, what was confusing?
- Were the instructions provided with the map easy to follow? Why or why not?
- Did you discuss the map with your child and walk the route together?
- Is (are) your child(ren) using the designated route each trip to school? If not, why not?
- Do you have any concerns about the designated route? If yes, please describe them.
- Would you like to volunteer to help with the school pedestrian or bicycle safety program?

Be sure that the feedback obtained through your evaluations is recorded and used to create future editions of the school walking route maps. Provide a review and appeal process for parents and

community members who express concerns and let them know the status of what is being done to address the problems.

Annual Review:

Developing and distributing the school walk route map is not a single event—it is a program that is constantly changing. The designated walk and bike routes for each school should be reviewed annually prior to opening school and sending the map(s) home. Routes should also be reviewed whenever changes in the environment warrant it, such as changes in traffic patterns, the start of road construction projects that might jeopardize pedestrian or bicycle safety, new development, or changes to the school's attendance boundaries.

When reviewing the walk route, be sure to conduct a field survey and note any changes on the route. Make sure crosswalks and curb paint is clean and fresh and signs along the route are not blocked by shrubbery. Be sure weeds are not encroaching on the shoulder of the road creating a challenging walking condition. Request new traffic engineering data such as traffic counts, traffic controls, sidewalk construction plans, changes to the street network, or plans for new construction in the service area and make sure the walk route reflects any changes noted from these reports.

Go over the concerns together with your community partners. Discuss possible education, encouragement, enforcement, and engineering solutions. Step four outlines ways to work with the community to resolve any walk route concerns. Seek to implement the easy fixes. Decide who will study solutions to the more complex problems and set a timeline for these solutions to be presented.

Once the review has been conducted, be sure that updated route maps are distributed to students and parents each fall as school opens (and newly enrolled students after the start of school) to help establish safe walking patterns and habits that will continue through the school year.

Appendix A

Ideas and Resources for Student Pedestrian and Bicycle Safety Improvements

AAA Washington
1745 114th Ave. SE
Bellevue, WA 98004-6930
Phone: (425) 646-2055
www.aaawa.com/trafficsafety/safetypatrol/

- Excellent source of materials, teacher's guide and curriculum material, brochures, color books, colorful posters, and a number of videos relating to child pedestrian safety and traffic. Brochures for parents, such as The Safest Route to School, Parents Can Be Serious Traffic Hazards, Preschool Children in Traffic, and School safety patrol materials are available as well as biannual school summer safety patrol advisor workshops.
- Films and videos sold at cost or loaned at no charge. Printed material sold at cost.
- Information is also available from local service centers.

Active Living Research
San Diego State University
3900 Fifth Avenue, Suite 310
San Diego, CA 92103
Phone: (619) 260-5534
Fax: (619) 260-1510
http://activelivingresearch.org/

A resource center for documents that examine how environments and policies influence active living for children and their families.

American School Bus Council
Phone: (866) 955-ASBC or (866) 955-2722.
http://www.americanschoolbuscouncil.org/

- School Bus Information Reports
- Key Safety Equipment Requirements
- School Bus Facts

America Walks
PO Box 2834, Alexandria VA 22301
Phone: (703) 738-4889
http://www.americawalks.org/srts/

Washington Bikes and Feet First– Center for Safe Routes to School
309A 3rd Avenue South
Seattle, WA 98104
Phone: (206) 224-9252
http://www.saferouteswa.org/

Washington Bikes—Safety Education
314 First Ave South
Seattle, WA 98104-2620
Phone: (206) 224-9252
http://wabikes.org/growing-bicycling/srts/

Education resources and training for bicycle safety, infrastructure, planning, and policy. A statewide organization that can help connect local organizations and community members.

Cascade Bicycle Club Education Foundation
7400 Sand Point Way NE
Building 138
Seattle, WA 98115
Phone:(206) 522-3222
Fax: (206) 522-2407
http://www.cbcef.org/

A variety of bicycle safety education opportunities, classes and events to encourage children to bicycle to school are provided. Technical consulting available for developing and implementing school bike route plans.

Family Resource Center, Children's Hospital and Medical Center
PO Box C5371
4800 Sand Point Way NE
Seattle, WA 98105
Phone: (206) 987-2201
http://www.seattlechildrens.org/clinics-programs/family-resource-center/

Information, educational materials, and programs are available on childhood injury prevention topics via Children's Resource Line, Family Resource Center

Most materials are available for loan or free of charge in limited quantities through Health Education and Outreach.

Feet First – Community Mapping Assistance
314 1st Avenue South
Seattle, WA 98104
Phone: (206) 652-2310
http://feetfirst.info/mapping

League of American Bicyclists – Bicycle Education
1612 K Street NW, Suite 800
Washington, DC 20006-2850
Phone: (202) 822-1333
Fax: (202) 822-1334
http://www.bikeleague.org/programs/education/

National Center for Bicycling and Walking
1506 21st Street, NW Suite 210
Washington, DC 20036
Phone: (202) 463-8405
http://www.bikewalk.org

Designed to be a central point of contact for organizations they provide a database of information including research, program materials and audiovisual materials.

National Center for Safe Routes to School
730 Martin Luther King, Jr. Blvd, Suite 300
Chapel Hill, NC 27599-3430
Phone: 1-866-610-SRTS
http://www.saferoutesinfo.org/

International Walk to School Day
(http://www.walkbiketoschool.org/)
National Highway Traffic Safety Administration
U.S. Department of Transportation
Jackson Federal Building, Room 3140
915 2nd Avenue
Seattle, WA 98174
Phone: (206) 220-7640
www.nhtsa.dot.gov

- Films, brochures, flyers, and videos are available on vehicle, bicycle, pedestrian, motorcycle, and traffic safety, including use of air bags, safety belts, and child safety restraints. A program specialist is also available for presentations, training and/or lectures on these subjects.
- Statistical information and facts are available on the above topics.
- Films and videos are available on a loan basis only. Brochures, flyers, and handouts are available on a very limited basis.
- Safe Routes to School/Safe Streets Toolkit download available.

Pedestrian and Bicycle Information Center
730 Martin Luther King Jr. Blvd., Suite 300
Chapel Hill, North Carolina 27599
1-888-823-3977
http://www.pedbikeinfo.org/community/to_school.cfm

- Walkable America Checklist

Office of Superintendent of Public Instruction
Student Transportation
P.O. Box 47200
Olympia, WA 98504-7200
Phone: (360) 725-6000
http://www.k12.wa.us/transportation/default.aspx

- Materials to assist in presentation of basic rules of school bus ridership including some pedestrian safety.
- MY SCHOOL BUS video, teacher material, take-home pamphlet.

Transportation Research Board
500 Fifth Street, NW
Washington, DC 20001
Phone: (202) 334-2934
http://trb.org/

Access to transportation research related documents such as the "Relative Risks of School Travel: A National Perspective and Guidance for Local Community Risk Assessment 2002" are available.

Walkable Communities, Inc.
P.O. Box 1451, Port Townsend, WA 98368
Phone: (614) 940-9780
www.walkable.org

A variety of publications on walking, traffic calming, and crossings are available.

Washington Schools Risk Management Pool
PO Box 88700,
Tukwila, Washington 98138-9712
Phone: (206) 394-9737
Toll-Free: (800) 488-7569
Fax: (206) 394-9712
http://www.wsrmp.com/

Change Lab solutions
http://changelabsolutions.org/publications/crossing-guards

They provide training for school patrol advisors, adult guards, and curriculum for student patrols. They will also visit sites to provide guidance on crossing guard placement, traffic improvements, etc.

Washington State Department of Health
101 Israel Rd SE, P.O. Box 47890
Tumwater, WA 98501
Phone: (360) 236-3723
http://www.doh.wa.gov/CommunityandEnvironment/Schools/SafeRoutestoSchool

Washington State Department of Transportation Safe Routes to School Program
310 Maple Park Ave SE
Olympia, WA 98504-7390
Phone: (360) 705-7302
http://www.wsdot.wa.gov/localprograms/saferoutes/

Planning, design and mapping assistance as well as a grant program for education, encouragement, enforcement and engineering improvements are available.

Washington Traffic Safety Commission
621 8th Ave SE Suite 409
Olympia, WA 98501
Phone: (360) 753-6197
www.wtsc.wa.gov

- Grants available to Washington schools for crossing guard equipment.
- Pedestrian program materials such as an online Washington pedestrian fatality map, online contributing factors to pedestrian fatalities charts, and a school bus brochure in English and Spanish available at the State Department of Enterprise Services MyPrint (https://prtonline.myprintdesk.net/DSF/storefront.aspx).

Other
Community Organizations and Agencies: Many other organizations and agencies are involved in childhood injury prevention. Suggested groups to contact for ideas, materials, and assistance in your area include:

- Police department
- Fire department
- School District Health Services
- Health Professionals
- Youth Organizations
- Service Organizations
- Media Representatives
- Hospitals
- Local or County Health Departments and Districts

Appendix B

Practical Tips for Opening a New School

Planning

1. Give preference to sites that are easily connected to existing pedestrian systems and within walking distance of established or planned neighborhoods.
2. Notify appropriate governmental agencies at the beginning of the school planning process that walkways will need to be developed.
3. Work with school planners to develop building access from yet-to-be-developed walkways and sidewalks, keeping in mind pedestrian safety. Look for ways to separate bus zone locations, pedestrian/bicycle areas and other vehicle traffic. Consider pick-up and drop-off zones that won't interfere with traffic flow and will allow children to access the site on foot or exit onto a sidewalk or pathway safely.
4. Meet with your community partners (schools, local government jurisdictions, local law enforcement agencies, parents, and others). Discuss student pedestrian safety needs and concerns. Brainstorm innovative ways to ensure pedestrian and walk route safety. Consider alternative pathways such as from an adjacent apartment building directly to the back entrance of a school via a gate or other pathway that does not require travel on the streets. Discuss signing, signals, safety patrol posts, lighting, and sources for funding. Outline needed education, enforcement, and engineering improvement initiatives.
5. Prioritize and set time lines for goals that result from meetings with community partners.
6. Develop school walk routes.

Spring Before School is Open

1. Meet with new school parent group to discuss the walking plan for the school. Include community partners in meeting.
2. School officials and parents can field test the walk routes, walking from the school to neighborhoods and noting any concerns.
3. Publish and distribute walking route information in letters home, newsletters, or the local newspaper. Collect any concerns and work to mitigate them.
4. Discuss school walk routes, safety patrol membership, and other pedestrian safety issues at any "open houses" held prior to the start of school.

When School Opens

1. Distribute school walk route maps to students and parents.
2. Continue working with community partners to implement improvements.
3. Review pedestrian safety programs yearly.

Appendix C

Metropolitan and Regional Planning Organizations

Each Metropolitan Planning Organization (MPO) in Washington serves a diverse population and provides a forum for cities, counties, ports, transit agencies, tribal nations, school districts, health organizations and the state to work together on regional issues and develop transportation plans for their regions. There are currently nine MPOs across the state: most serve several counties and urban areas.

Benton Franklin Council of Governments
1622 Terminal Drive
Richland, WA 99352
Phone: 509-943-9185
www.bfcog.us

Thurston Regional Planning Council
2404 Heritage Court SW #B
Olympia, WA 98502
Phone: 360-786-5480
www.trpc.org

Cowlitz-Wahkiakum Council of Governments
207 4th Ave. North
Kelso, WA 98626
Phone: 360-577-3041
www.cwcog.org

Wenatchee Valley Transportation Council
300 S. Columbia Street
Wenatchee, WA 98801
Phone: 509-669-2906

Whatcom Council of Governments
314 E Champion Street
Bellingham, WA 98225
Phone: 360-676-6974
www.wcog.org

Puget Sound Regional Council
1011 Western Ave., Suite 500
Seattle, WA 98104
Phone: 206-464-7090
www.psrc.org

Yakima Valley Conference of Governments
6 South Second St., Suite 605
Yakima, WA 98901
Phone: 509-574-1550
www.yvcog.org

Southwest Washington Regional Transportation Council
1351 Officers Row
Vancouver, WA 98661
Phone: 360-397-6067
www.rtc.wa.gov

Spokane Regional Transportation Council
221. W. First Avenue, Suite 310
Spokane, WA 99201
Phone: 509-343-6370
www.srtc.org

State Agencies

Washington State Department of Transportation
310 Maple Park Avenue SE
P.O. Box 47390
Olympia, WA 98504-7390
Phone: 360-705-7070
www.wsdot.wa.gov

Washington Traffic Safety Commission
1000 South Cherry Street
P.O. Box 40944
Olympia, WA 98504-0944
Phone: 360-753-6197
www.wa.gov/wtsc

Office of Superintendent of Public Instruction
PO Box 47200
Olympia WA 98504-7200
Phone: 360-725-6120
www.k12.wa.us/

Appendix D

Resources for Pedestrian and Bicycle Infrastructure Design Standards and Guides

For Guidance on Pedestrian Related Infrastructure:

- Washington State DOT Design Manual, Chapter 1510: http://www.wsdot.wa.gov/Publications/Manuals/M22-01.htm
- http://www.pedbikeinfo.org/ http://www.pedbikesafe.org/PEDSAFE/
- NACTO Urban Streets Design Guide (http://nacto.org/usdg)
- Guide for the Development of Pedestrian Facilities; AASHTO (http://www.transportation.org/)

For Guidance on Bicycle Related Infrastructure:

- Washington State DOT Design Manual, Chapter 1520: http://www.wsdot.wa.gov/Publications/Manuals/M22-01.htm
- http://www.pedbikeinfo.org/
- NACTO Urban Bikeway Design Guide (http://nacto.org/cities-for-cycling/design-guide/)
- Guide for the Development of Bicycle Facilities; AASHTO (http://www.transportation.org/)