

Washington Elementary Walking Audit



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Overview of Program

Communities Putting Prevention to Work: Washington Elementary, Auburn School District

Safe Routes to School (SRTS) is a growing movement to encourage and support “active commuting” on the part of school children and families. At the intersection of public health, public safety, education, and transportation, SRTS helps communities create a balanced alternative to an automobile-centered culture.

In an effort to improve King County children’s physical health, academic performance, and personal safety, the Bicycle Alliance of Washington and Feet First are leading SRTS programs at eighteen schools in 2011. Through partnerships with King County school districts and other community organizations, these programs identify safe and unsafe areas for biking and walking, design safety improvements, educate students on safe walking and biking practices, and launch events to encourage children to walk and bike. These efforts span the “5 E’s” of SRTS: Education, Encouragement, Enforcement, Engineering and Evaluation.

The ultimate goal of this grant is to encourage more children to walk and bike to school, thereby helping combat childhood obesity. Childhood obesity rates have more than tripled in the past thirty years, while the number of children walking and biking to school has declined. In 2009, less than 13 percent of U.S. students between the ages of five and fourteen walked or biked to school, compared to 48 percent in 1969.¹ Childhood obesity is associated with cardiovascular disease and diabetes.

Three walking audits in Auburn will be used to identify and prioritize nonmotorized improvements. They have been timed to coincide with the school district transportation planning meeting scheduled for June of 2011. Additionally, the recommendations in these audits can be applied to SRTS programs at other schools in the district.

1. 2009 National Household Travel Survey, U.S. Department of Transportation

Methodology

The first step was to gain an understanding of where students live, where they are coming from in the morning, and where they are going in the afternoons. This information was gathered from the district as well as from teachers and staff at the school. The second step of this program was to meet with community stakeholders including teachers, staff, PTA members, and other community partners, if available.

Each school’s neighborhood was visited and “ground-truthed” (map data was compared with in-person observations). Notes and photographs were taken on pedestrian infrastructure-related assets and issues. Based on these observations, points of interest were chosen and maps were prepared for the community walking audits.

Dates were set for the community walking audits based on availability of the Auburn School District participants, community partners, and primary school contacts. The Washington Elementary audit took place on Wednesday May 12, 2011. The audit began at the end of the school day to observe the dismissal process, and lasted one and one-half hours. Audit participants were given maps, clipboards, and digital cameras. They recorded their observations directly onto the maps, and took photographs to go along with their written observations. Their comments and the cameras were collected after the audit, and these records were integrated into the final report.

Community Participation

In order to gather participants for the community walking audits, Principal Pauline Thomas worked diligently with faculty and staff at Washington Elementary to gather parents, neighbors and school staff. John Vander Sluis of the Bicycle Alliance of Washington and the Auburn School District director of transportation, Dennis Grad, worked to identify and contact city planners, engineers, transportation specialists, and police officials to solicit their participation in this community- and coalition-building process.

Washington Elementary Community Walking Audit participants included:

Pauline Thomas – Principal at Washington Elementary
Kathy Schumaier – Washington Elementary Staff
Shirlee Partridge – Washington Elementary Staff
Amy Cresswell – Washington Elementary Staff
Ray Vefik - Auburn School District Board Member
Officer Robin McCluskey - Auburn School Police
Officer Leslie Jordan - Auburn School Police
Dennis Grad - Auburn School District Transportation
April Hurlbert – Auburn School District Transportation
Mike Newman - Deputy Superintendent, Auburn School District
Kjerstin Lange – City of Auburn, Parks and Recreation
Chris Hankins – City of Auburn, Public Works
Bicycle Alliance of Washington, Safe Routes to School Program Manager – John Vander Sluis
Feet First Active Communities Mapping Specialist – Gia Clark
Approximately five students, many of whom often walk home daily joined the walk.

Overview of School

School Overview

Washington Elementary serves 500 pre-kindergarten through fifth grade students from the City of Auburn. The school has a rich cultural diversity: half of the students are Caucasian, a quarter are Hispanic, and a quarter are Asian or African American. Seventy percent qualify for free or subsidized school lunches. The school is located at 20 E St NE, Auburn, Washington.

The school benefits from its location in downtown Auburn. Streets have largely been designed or redeveloped on a pedestrian scale, drivers are relatively accustomed to seeing pedestrians, and local businesses could be called on to help incentivize parents to walk with their children to school.

Biking

The area surround the school is largely supportive of student bikers. Beginner riders can use the sidewalk network to ride off-road, and more advanced riders can make use of the (generally) slower speed neighborhood streets. However, bike lanes are not present on many of the local streets. Additionally, the youth bikers who were observed during the audit were not wearing helmets, and could benefit from efforts to promote helmet use. A number of sources for free helmets will be provided to the school.

The school provides parking for bikes behind the main school building. However, this parking could be improved in many ways. For example, in order to securely lock a bike's frame to the rack, it must be biked crossways across the rack – reducing the rack's storage capacity. Additionally, improved parking would be located in a covered, preferably locked, area where school staff could naturally observe the rack – these measures would decrease the risk of theft and increase the life of the bikes. See the field notes and attached guide to bicycle parking for a brief overview of bike parking location concerns.

Ridership may also be hindered by families' economic constraints. The school and district could seek out partnerships to put more bikes in kids' hands. Rotary and other community groups are often available to fund bike drives and to repair families' damaged bikes. Programs such as in Southeast Seattle's Bikeworks offer kids a chance to earn a bike through community service.

Washington Elementary Walking Audit

Walking Audit Route:

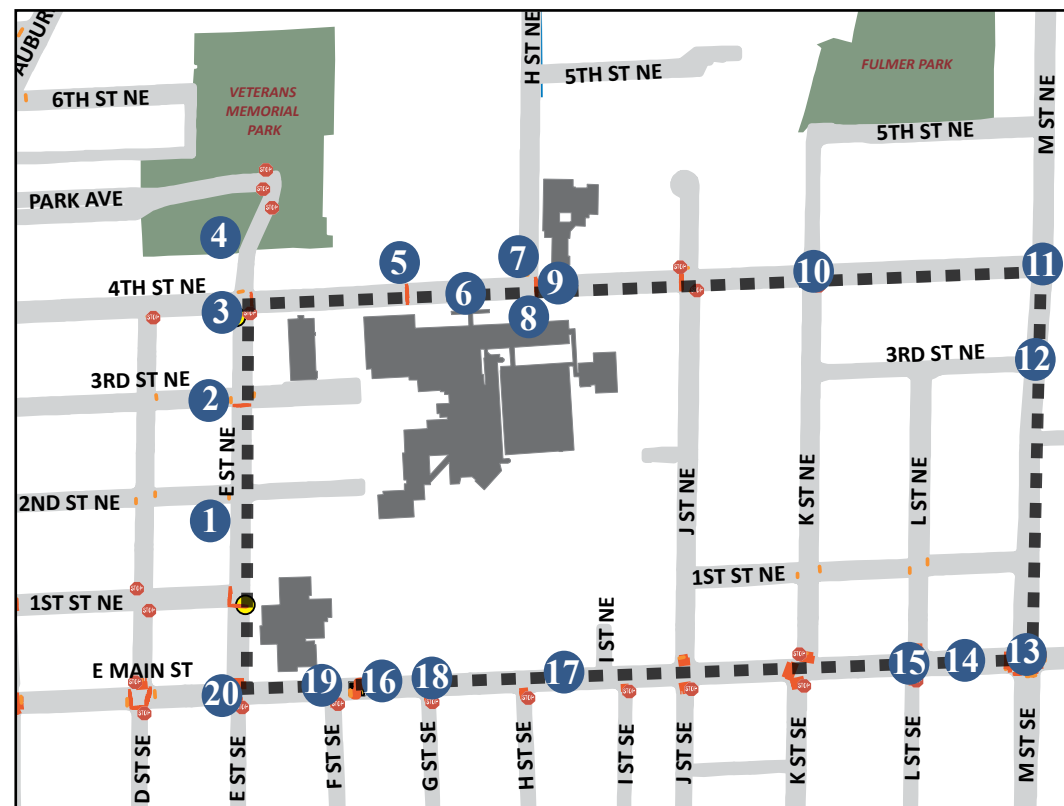
The walking route circled the several blocks surrounding school. In particular the walk looked at the current walking boundary to the north of the school and examined the challenges currently preventing students north of 4th Street NE from walking to and from school. This route was chosen to examine the existing challenges for these students and propose solutions that would increase the Washington Elementary walking area north of 4th Street NE. See the route map on the following page.

Walking Audit Top Observations:

Much of the area immediately around Washington Elementary, and the nearby historic center of Auburn, is designed on a grid and built with wide sidewalks and well marked cross walk locations, which supports safe walking to and from school.

Based on conversations with Denis Grad, the Auburn School District head of Transportation, the walking area for Washington Elementary can be expanded to include the students that live on the north side of 4th Street NE if an appropriate safe crossing is designated in the school walk route.

8th Street NE is a significant through road with fast moving traffic and very unsafe walking areas for

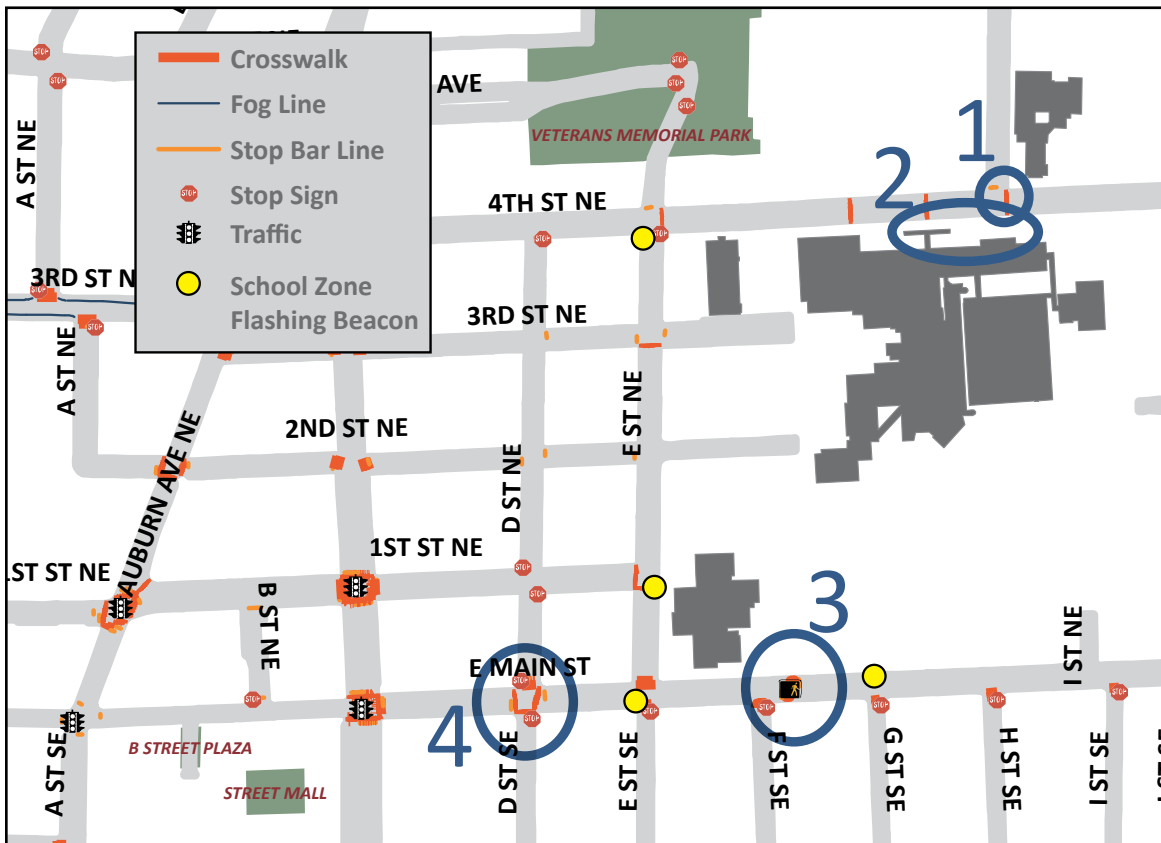


pedestrians. While outside of the purview of this particular walking audit area, students that live in on I Street NE or I Place NE would benefit from additional connections to Fulmner Park in order to enable them to walk to school.

Walking Audit Top Recommendations

1. Position a crossing guard at 4th Street NE and H Street NE: Positioning a crossing guard at this location will allow students that live on the north side of 4th Street NE to cross safely to the south side of 4th Street NE and expand the walk boundary for Washington Elementary. This location is the suggested crossing location so as to funnel walkers who live on 5th Street NE and head down H Street NE to cross with students who live on the north side of 4th Street NE. (field note #9)

2. Auburn High School driveway exit: Clearly mark and delineate the driveway exit from Auburn High School. Vertical markers such as candlestick reflectors can be used to line the edge between the sidewalk and the driveway area. Additionally, use paint to mark the ground plane so that both driver and pedestrian are aware of the driveway exit area. (field note #8)











3. Pedestrian Crossing on M Street NE (between F Street NE and M Street NE): Work with city engineers to adjust the width of the crossing area to accommodate wheelchairs and strollers. (field note #19)




4. E Main Street & F Street NE (Education and Encouragement): The area around Washington Elementary is well engineered to support safe walking to and from school as well as in the nearby historic downtown. Because there are so many appropriate crossings, there is little reason for students and parents/guardians to use unsafe crossing locations. Encourage and educate students and parent/guardians to use crosswalk locations at E Main Street & D Street NE or E Main Street and F Street NE – not at E Main Street and E Street NE. (field note #20)





Walking Audit Field Notes





Field Note Observation points correspond to the numbers on route map shown on page 3.

Field Observation Pt.	Location	Community Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	
1	E Street NE & 2nd Street NE	x						New sidewalks are being installed in several places near Washington Elementary. These will continue to improve the walking environment for student and community members alike.		
2	E Street NE & 3rd Street NE	x	x					This is a well-used crossing location for both elementary and high school students. The crosswalk paint is fading.	Repaint the existing crosswalk location to make it more visible to drivers.	
3	E Street NE & 4th Street NE	x						There is an existing crosswalk to assist pedestrians crossing 4th Street NE.	The City of Auburn Public Works Department is planning on repainting this crosswalk in the next few months as well as adding a crosswalk east/west to assist crossing E Street NE.	
4	Veterans Park	x		x				Many of the elementary, middle, and high school students use the park as a cut through to the neighborhoods immediately behind the park. There is concern that the park is poorly lit much of the year creating a dark and unsafe place for students.	Work with City and School District enforcement agencies to routinely check the security of this park, particularly during the times immediately before and after school. Create a community walking program with either either a paid or volunteer position that provides personal safety training as well as adult supervision on walk routes home. Work with City Parks and Recreation departemet to improve lighting, sightlines, CPTED tree trimming guidelines.	

Field Observation Pt.	Location	Community Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	
5	4th Street NE in front of Auburn High School (crosswalk to track)	x	x					This crosswalk is used regularly by students. However, even with the frequent use, drivers tend to move quickly through this area. Often pedestrians can not be seen because of parked cars along 4th Street NE.	Consider installing reflective turtles or a raised pedestrian area to designate the pedestrian crossing area to drivers. Extend the 'no parking' zone well beyond the crosswalk to assist pedestrian sightlines.	
6	4th Street NE in front of Auburn High School		x	x				Drivers at the high school park cars along the sidewalk.	Distinguish a clear boundary between the pedestrian area and the driving area. Physical barriers have been used in the past.	
7	4th Street NE in front of Auburn High School (crosswalk to parking lot)	x	x					This crosswalk is used regularly by students. However, even with the frequent use, drivers tend to move quickly through this area. Often pedestrians can not be seen because of parked cars along 4th Street NE.	Consider installing reflective turtles or a raised pedestrian area to designate the pedestrian crossing area to drivers. Extend the 'no parking' zone well beyond the crosswalk to assist pedestrian sightlines.	
8	4th Street NE in front of Auburn High School (driveway exit onto 4th Street NE)		x	x	x			There is little visible separation of the sidewalk and the driveway exit. Pedestrians and drivers are sharing the same space with little delineation of space.	Work with Auburn High School and Auburn School District Transportation to install physical separation and delineation of where the driveway and the sidewalk come together. A quick solution would be to paint the sidewalk area, perhaps along the whole length of the sidewalk but particularly at the intersections with driveway entrances and exits.	





Field Observation Pt.	Location	Community Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	
9	4th Street NE in front of Auburn High School (crosswalk to H Street NE)				x		x	If the Auburn School District is to expand the walking area for Washington Elementary, this crosswalk is the preferred crossing location for students who live on the north side of 4th Street NE as they walk to school.	Washington Elementary can work with the Auburn School District transportation department to station an adult crossing guard at this location both morning and afternoon to assist students across 4th Street NE	
10	4th Street NE & K Street NE	x						Public garden plots provide a pleasant area to walk by. Half the plots are still available.	Consider strengthening district ties with City Parks Department to incorporate student involvement in gardens.	
11	4th Street NE & M Street NE				x			M Street NE is a busy road with fast-moving traffic. There is no buffer zone between pedestrians and the cars. The pedestrian signal and crosswalk is marked, but could be improved with additional lighting.	While the crosswalk and pedestrian signal assist pedestrians to cross M Street NE, students should practice safe walking behaviors such as making sure all cars come to a complete stop before crossing the street. They should avoid walking along M Street NE when possible. Overhead pedestrian walk lights would also assist visibility of pedestrians using this crosswalk.	
12	3rd Street NE & M Street NE	x						New sidewalks are being installed along 3rd Street NE.		

Field Observation Pt.	Location	Community Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	
13	E Main Street & M Street NE		x		x			This is a busy intersection with multiple lanes of traffic in all directions. Pedestrians wait to cross at corner locations that are cramped and close to fast moving traffic.	Work with City of Auburn officials to time pedestrian crosswalk times to favor pedestrians, giving them ample lead time to cross the street. This could be done by staggering the pedestrian crossing time or making an all walk signal that allows pedestrians the exclusive right to cross both directions.	
14	E Main Street & M Street		x					Street furniture and utilities crowd pedestrian passage making it especially difficult for wheelchairs and strollers to navigate.	Work with the owner of the parking lot to expand the walking area by a few feet. Expanding the sidewalk in this direction would greatly improve the walking experience and still allow for ample parking space. Physical separation by a planting strip, parking stops, or even a low wall would delineate the parking area from the walkway.	
15	E Main Street & L Street NE	x						This crosswalk is well designed and installed and is representative of the good work that the City of Auburn is doing to improve walkability in Auburn.		
16	E Main Street & exit from Auburn Performing Arts Center		x					Vehicle traffic exiting from the Auburn Performing Arts Center parking lot (both day and night) often do not see pedestrians. The drivers edge into the sidewalk in order to make both left and right hand turns	Add a stop bar on parking lot and highlight sidewalk area with paint. In addition, expand the no parking zone in either direction of the exit to improve sightlines so drivers will not have to creep out into the sidewalk to see oncoming traffic.	

Field Observation Pt.	Location	Community Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	
17	E Main Street (L Street to E Street)	x						The sidewalk along E Main Street from L Street until E Street is heavily traveled by students walking home from Washington Elementary.		
18	E Main Street NE & I Street NE	x						Flashing beacon is well placed and informs drivers they are approaching a school zone.	When and if beacon need maintenance contact:	
19	Pedestrian Crossing on M Street NE (between F Street NE and M Street NE)	x	x					Pedestrian refuge island shortens crossing distance for walkers and directs pedestrian line of sight towards oncoming traffic. One of the Washington Elementary staff remarked that the width of the crossing is incredibly tight for wheelchairs and strollers.	Ask City to investigate design changes to accommodate ADA standards and improve the crossing for all users.	
20	E Street NE and E Main Street				x	x		A number of students live on D Street NE and must cross E Main Street. The tendency is to cross E Main Street at E Street where there is not a safe crossing location. Washington Elementary staff continue to encourage students to walk to either the crosswalk at D Street NE or the crosswalk at F Street NE. However, students are reluctant to walk out of their way and often cross at E Street NE anyway.	Washington Elementary staff can work with the Auburn School District Police Department to encourage and compel students to cross at the official marked crossing. An encouragement campaign can also bring in parents to ensure that the adults are modeling appropriate safe crossing behavior.	

Walking Audit Field Notes - School Grounds

The following observation points focus specifically on Washington Elementary School Grounds.

Field Observation Pt.	Intersection	Community Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	Image
1	School Grounds Pick-up/Drop-off						x	When drivers turn out of the pick-up area they can turn left or right. However, the left turn sight lines are poor thus slow down the turn time, backing up traffic in the pick-up area.	Work with city traffic officials to see if right turn only is an option for car traffic. This may be best if bus traffic could still turn both directions in order to keep traffic congestion regulated.	
2	School Grounds Parking lot exit along E Street NE		x					Cars park along E Street up to the pick-up driveway exit. This limits drivers' sightlines.	Work with the City of Auburn to paint curb and install signs to prohibit parking between the pick-up driveway entrance and exit.	
3	School Grounds School Bus pick-up area	x						The school has done a good job separating school bus and car traffic. The cars pick up students at the front of the school and the bus pick-up on the north side of the school.		
4	School Grounds E Street NE and 1st Street NE	x					x	School patrol provides supervised crossing, but patrol has no adult supervision. Students are instructed to cross the street at the patrol crosswalk, however, some students that walk to the north of the school use the marked crosswalk in front of the school bus exit	Continue to encourage students to use the patrol crossing at E Street NE and 1st Street NE.	

Guidelines for Bicycle Parking at Schools

Providing good quality bicycle parking for students and staff can encourage biking by decreasing the risk of conflict, theft, and damage.

Bicycle parking must be:

- visible
- accessible
- secure
- easy to use
- convenient
- plentiful

Bicycle parking should be: covered, well lit, and in plain view without being in the way of pedestrians.

Theft is a serious concern for bicyclists. Nearly 1.5 million bikes are stolen in the U.S. each year. Safe and convenient parking is as critical to bicyclists as it is for motorists. Racks should:

- Be placed in areas with high pedestrian activity and “eyes-on-the-street”
- Be more visible to staff and students than passersby
- Allow the frame and one wheel to be locked to the rack when both wheels are left on the bike
- Allow the frame and both wheels to be locked to the rack if the front wheel is removed
- Allow the use of either a cable or U-shaped lock
- Be securely anchored.



In areas with high crime concerns, schools should consider placing racks in rooms or cages that can be locked during the school day.

Location: Racks need to be sited and installed appropriately for them to be well used:

- Racks that are placed less than 2'-3' from a wall or less than 30" from another rack will end up sitting empty.
- Racks need to be clearly visible and accessible, within 50' of the building's main entrance or at several commonly used entrances.

Design Standards: Racks should:

- Support the bicycle frame, not just one wheel
- Resist cutting, rusting, bending and deformation
- Be usable by bikes with no kickstand and bikes with water bottle cages

- Be usable by a wide variety of sizes and types of bicycle
- Be promoted with bike parking directional signs
- Have roofs or be located under awnings - to provide riders with rain protection while locking their bikes *and* to prolong the life of the bikes' metal and rubber components- an important issue for low-income riders.

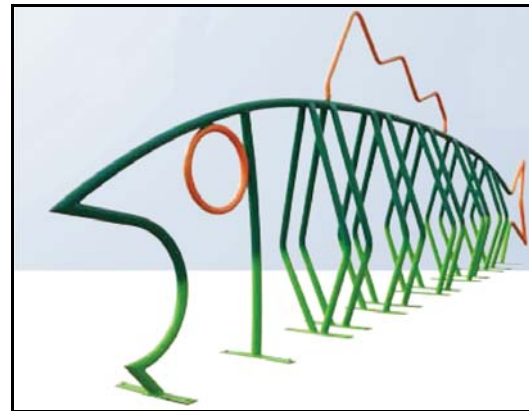


“Wheel-bender” racks (above) can damage wheels and don’t allow frames to be locked to the rack.

Costs: The cost to purchase and install bike rack varies, but is almost always cheaper and more efficient than providing car parking:

- A bike rack that parks two bikes costs \$150 to \$300.
- A locker that holds two bikes costs between \$1,000 and \$4,000 to purchase and install.
- The cost to provide two car parking spaces is \$4,400 on a surface lot and \$25,000 in a garage.
- Parking for 10-12 bikes can fit in the same space required for a single car.

Customized Designs: As long as they meet the guidelines discussed above, bicycle racks can serve a dual purpose by promoting a school’s name, mascot, or values (see below).



More Information: To learn more about how to choose a rack that is good for your school, please consult these resources:

- The Association of Pedestrian and Bicycle Professionals (APBP) <http://www.apbp.org/?page=Publications>.
- The Pedestrian and Bicycle Information Center: <http://www.bicyclinginfo.org/engineering/parking.cfm>.
- Madison, WI bike parking guidelines: <http://www.cityofmadison.com/trafficEngineering/documents/MadisonBikeParking20100715.pdf>
- John Vander Sluis, The Bicycle Alliance of Washington, JohnV@bicyclealliance.org