



Tiffany Park Elementary Walking Audit



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Overview of Program

Communities Putting Prevention to Work: Tiffany Park Elementary, Hazelwood Elementary, Highlands Elementary

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 Safe Routes to Schools programs at eighteen schools in 2011. Through partnerships with King County school districts and other community organizations, the 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. The project spans the “5 E’s” of SRTS: Education, Encouragement, Enforcement, Engineering and Evaluation.

The goal of the project is to create new or improved systems so that more children will walk and bike to school, thereby helping to combat childhood obesity. Childhood obesity rates have more than tripled in the past 30 years, while the number of children walking and biking to school has declined.

In 2009, less than 13 percent of students between the ages of five and 14 walked or biked to school, compared to 48 percent in 1969. Childhood obesity is associated with cardiovascular disease and diabetes, which contribute to the largest causes of death in the King County.

These three Renton walking audits identify and prioritize the next steps to acquiring funds for future projects. Additionally, the recommendations can be incorporated into the District and the City of Renton’s approach to Safe Routes to School programs at the other schools in the district.

Methodology

First step of methodology was to gain an understanding of where students live, where they are coming from in the mornings and where they are going to in the afternoons. This information was gathered from the district as well as based in local knowledge of the teachers and staff at the school. Second step of this program was to meet with community stakeholders, such as teachers and staff at the school, PTA and if available other community partners.

These schools were chosen for the CPPW project based on their combination of high need status and program readiness. Each school’s neighborhood was visited and “ground-truthed” to compare mapping data 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 City of Renton School District Health Director, Susan Lander and of primary school contacts. The audits were conducted on January 20th at Tiffany Park Elementary, February 3rd at Hazelwood Elementary, and February 8th at Highlands Elementary. Each audits began at the end of the school day to observe the dismissal process, and lasted 1.5 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 reports.

Community Participation

The principals, faculty and staff recruited community participants including parents, neighbors, and concerned citizens. Bicycle Alliance of Washington and Feet First created and emailed fliers to the school's, and coordinated meetings between the District and city planners, engineers, transportation specialist and the police department.

Tiffany Park Elementary Community Walking Audit participants included:

Tiffany Park Elementary Parent – Debora Gilroy
Tiffany Park Elementary Parent / Tiffany Park Home Owners rep. - Debora Gilroy
Tiffany Park Elementary Faculty and Parent – Meesa Andelin
Tiffany Park Elementary Teacher and Safety Patrol Coordinator – Ryan Defant
Tiffany Park Elementary P.E. Teacher and Unicycle Coach – Tony Collins
Falcon Ridge Community Member – Anissa Cloyd
Renton School District, Health Director – Susan Lander
Renton School District, Transportation Director – Ron Schepers
Renton Police Department, School Resource Officers – Keith Fekete and Clay Deering
City of Renton, Public Works Transportation Planner – Nate Jones
City of Renton, Transportation Systems Division – Jayson Grant
City of Renton, Code Compliance Instructor – Darren Wilson
City of Renton, Street Maintenance Supervisor – Patrick Zellner
King County Public Health, CPPW Schools Coordinator – Donna Oberg
Puget Sound Regional Council Growth Management Planner – Jeffrey W. Raker
Bicycle Alliance of Washington, Safe Routes to School Program Manager – John VanderSluis
Feet First Executive Director – Lisa Quinn
Feet First Active Communities Mapping Specialist – Gia Clark

All walking audit participants were emailed a draft copy of this report and given the opportunity to review it and provide further input, which was then integrated into the report.

Overview of School

Tiffany Park Elementary is a K-5 school located at 1601 Lake Youngs Way SE within the Falcon Ridge, Tiffany Park and Cedar Ridge neighborhoods. Tiffany Park serves a diverse student body of about 450 students, a third of whom were born outside of the U.S., and a quarter of whom are English Language Learners. Over half qualify for free or subsidized school lunch.

One of the exciting special programs available at Tiffany Park is a unicycle program run by Tony Collins. This is a great activity for students to participate in, as it increases their self esteem and teaches them to persevere through life's difficult challenges.

There are a number of great connector trails near the school that follow the power line right of way. There is, however, parent and teacher concern about visibility and safety on trails. Students could benefit from walking school bus and other supervised walks on these trails.

There are significant hills in the Tiffany Park area that discourage walking and biking. However, for encouragement events there is an opportunity for a remote drop off location as a way to activate students that otherwise may be less able to participate in walking programs.

Bicycling

Tiffany Park Elementary provides a wave-style bicycle rack that can accommodate 12-15 bicycles. These racks discourage theft by allowing riders to lock their frames to the rack rather than just a wheel. Other elements of the bike parking could be improved; its location by the parking lot makes it visible to passersby, but not to school staff, and the lack of cover discourages students from riding in rain. See the bicycle parking guide in this report for details.

The surrounding area provides mixed support for riders; pavement condition is generally good, although participants reported frequent speeding drivers. Potentially hazardous storm drains are noted in the field notes. The Royal Hills apartment complex residents should be asked whether the complex offers secure bicycle parking, although the grade of Royal Hills Drive SE may discourage young riders.

Additionally, there is an active unicycle program already in existence at Tiffany Park. P.E. teacher, Tony Collins, is an excellent ally and educator for both pedestrian and bicycle safety skills. A potential outreach area for biking exists in the Falcon Ridge neighborhood just north of the intersection of Royal Hills and Lake Youngs Way (SE 8th Drive and SE 8th Place).

Walking Audit Route:

The walk route for Tiffany Park began by examining the pick-up and drop-off challenges immediately outside the school entry area. The walk proceeded to discussion points along Lake Youngs Way at the parking lot entrance, Jefferson Ct., Index Ct. SE, 16th Ave. SE, and Royal Hills Drive. On the return to school, the group stopped at 16th Ave SE and Glenwood Ave SE, Tiffany Park, Lake Youngs Way and Kirkland, Lake Youngs Way and the parking lot exit, and Lake Youngs Way and 18th.

Due to the exceptional number of people who turned out for the event, half the group traveled clockwise, and the other counter-clockwise.

Top Observations:

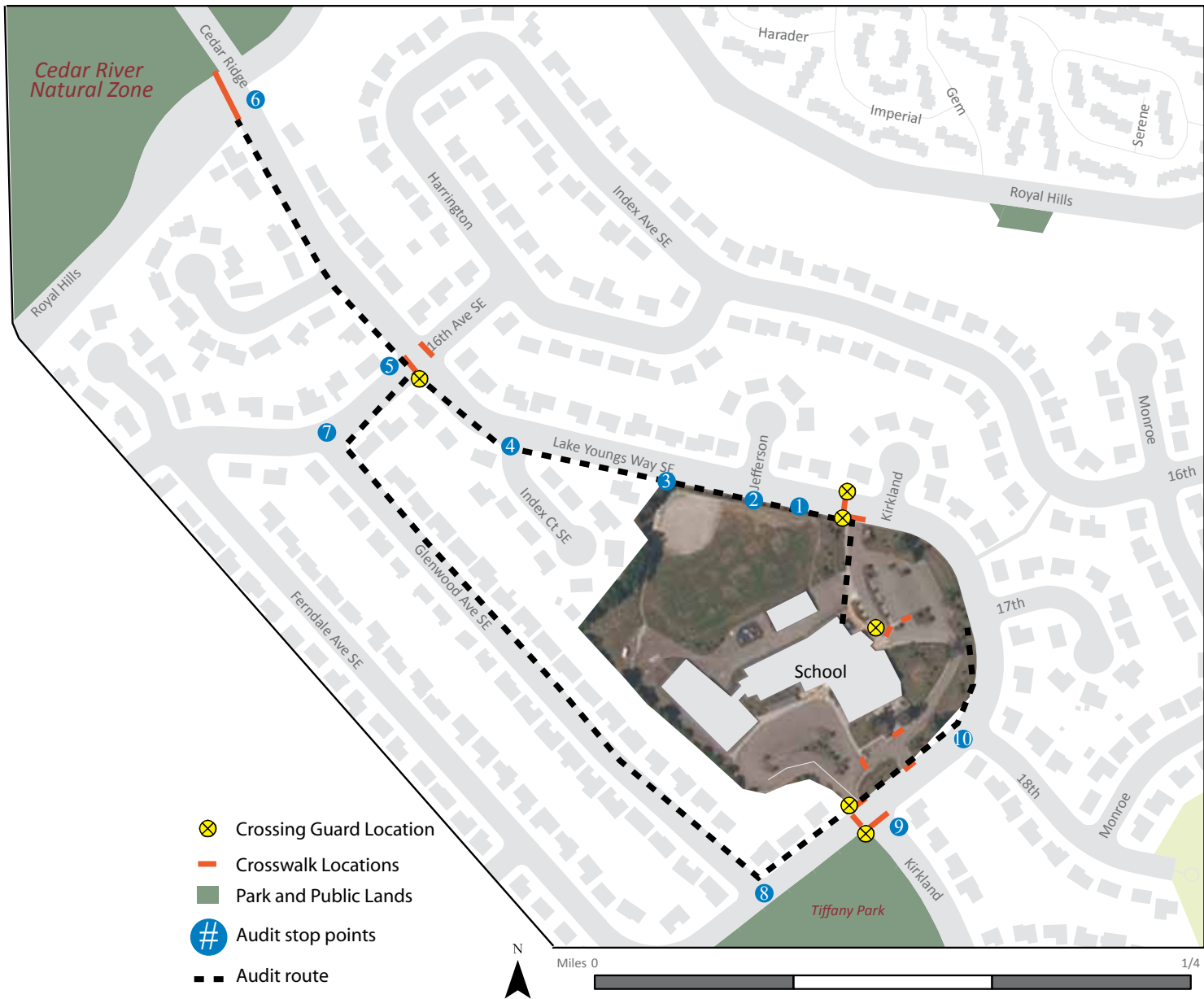
1. **Speeding:** Speeding is encouraged by two street design choices: wide turning radii and street width. The wide turning radii found throughout the neighborhood allow drivers to move through intersections without slowing for pedestrians. Many of the streets in the Tiffany Park neighborhood are quite wide, designed to allow parking on both sides of the street. However since many of the houses in the neighborhood have driveways, there are not many cars parked on the street. The resulting street width allows drivers speed in areas that are marked as 25 mph. This is a particular problem in the school zone area, despite the school zone signs. This is compounded by the limited sightlines on the curve of Lake Youngs Way between 17th and 18th Courts, and the topography at Royal Hills & Lake Youngs Way SE.

Safe traffic speeds are crucial because they encourage people to walk, and reduce the risk of injury to pedestrians and cyclists (see below).




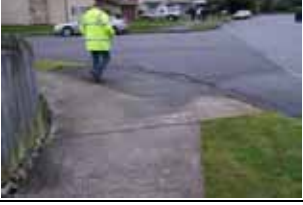
2. **Safe Crossing Opportunities:** While there are some crosswalks in the neighborhood, there are several locations where there are no marked crossings.




Top Recommendations:





1. Lake Youngs Way between 17^t & 18th Courts: Adults and children cut northwest across the school parking lot and continue across Lake Youngs Way SE. However, the poor sightlines caused by the grassy berm and the road's curve, combined with the speed of cars coming around the curve make this an inappropriate crossing point. Address this through a combination of education, engineering, and enforcement. Work with community partners and directly with families to educate children and parents to use only the marked intersections. Install a small fence along the top of the berm, and work with the city to explore traffic slowing measures. Ask the police department to bring out a mobile speed trailer and/or to conduct enforcement during school pick-up and drop-off times at the beginning of (or throughout) the school year.
2. Lake Youngs Way and Royal Hills: This is a particularly problematic intersection with a number of opportunities to improve pedestrian safety. Work with local enforcement officials to target speed reduction for downhill traffic. Work with city engineers to complete the sidewalk on the SW side of Lake Youngs Way and to install well marked crosswalks.
3. 16th and Glennwood: Work with city engineering officials to install appropriate engineering measures to reduce the speed of vehicles traveling downhill on 16th. Consider measures to improve crossing safety, such as reducing the turning radius at the SW corner, installing a marked crossing across Glennwood, installing "bulb out"s to reduce pedestrian crossing times. Other schools have painted similar intersections with their school mascot to increase awareness of the school proximity.
4. Lake Youngs Way and Kirkland: Students are crossing midblock on Lake Youngs Way. Work with students about appropriate crossing locations, explaining sightlines and visibility. Work with city officials to determine if an additional crosswalk location is appropriate on the east side of the intersection.
5. Neighborhoods SE of the school: The neighborhoods immediately surrounding the school to the SE, including SE 158th, SE 160th, SE 161st, have sidewalks and require only limited street crossings. This area can be targeted for encouragement events, specifically on biking.
6. Parent pick-up lot: Use engineering and education measures to free up adult traffic guard time. Adult traffic guards must watch the safety patrol students, keep drivers from parking in the fire lane spot, scan the pickup lane for adults and kids cutting through the lot without using the crosswalk, scan for kids walking over the berm, and watch the school sidewalk for kids darting out into parking lot traffic. Adult guard focus could be more targeted by any of the following measures: install a fence along the top of the berm (see #1 above); install a fence and/or a continuous hedge of decorative thorned bushes in the divider between the pick up lane and the parking lot; check with the fire marshall and school principal to see if they will allow parents to wait in their cars in the fire lane spot; paint a yellow line on the sidewalk two feet back from the pickup area and teach kids to stay behind it; replace the crosswalk from the school entrance to the parking lot with a raised speed table crosswalk; use curbs to narrow the path cars take from parking entrance to exit; publish pick-up/drop-off parent information in all common languages; use universal signage on maps for parents.






Tiffany Park Walking Audit Route

Observation Pt.	Intersection	Community Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	Image
1	Lake Youngs Way SE, between Jefferson and Kirkland			x				There is poor visibility due to parked cars	Enforcement: Install 'no parking' signs near crosswalks Engineering: Look into painting curbs with no parking markings as well installing reflective school zone signs on posts	
2	Lake Youngs Way SE and Jefferson		x	x				The area turning onto Jefferson from Lake Youngs Way has unclear street lines and the streets are wide to cause vehicles to travel fast down street. There is no crosswalk on the east crossing.	Engineering: Paint a centerline to keep the traffic on the right side of the street. Provide a crosswalk for students traveling from the SE to and from school.	
3	Lake Youngs Way SE and northern most corner of school		x					There is poor access for strollers, sidewalk bikers, people with disabilities.	Engineering: Needs a ramp. The sidewalks and crossing leads to grass with no ADA Access.	
4	Lake Youngs Way SE and Index Ct SE, crossing		x					The wheelchair ramp and street asphalt is in poor condition.	Engineering: Add curb cut in sidewalk for ADA access.	



Observation Pt.	Intersection	Community Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	Image
5	Lake Youngs Way SE and 16th Ave SE		x	x				This is the main intersection for neighborhood cars onto Lake Youngs Way. Cars slow down and don't stop at this intersection.	Engineering: Work with local engineers to see if installing a stop bar at this location would be of use to encourage vehicles to come to a complete stop.	
5	Lake Youngs Way SE and 16th Ave SE		x					There is no crosswalk on southeast crossing.	Engineering: Install a crosswalk across Lakes Young Way SE and 16th Ave SE.	
6	Lake Youngs Way SE and Royal Hills intersection		x	x				The sidewalk ends abruptly on the SW side. Even though this is a 4-way stop, there is a noticeable pattern of speeding and running the stop sign, particularly heading downhill on Royal Hills.	Engineering: Needs a sidewalk extension. Check with utilities to see if an extension is possible. If full paved sidewalk is not possible, consider other path development (gravel, etc.) to encourage students to use this connection. Curb ramps are not ADA compliant (one has a textured stamp, the other has no tactile surface). Narrow the NE side with turtles/foglines/bulbouts, etc. Enforcement: According to the officers on the walk, this has been a hot spot for ticketing in the past. Repeat enforcement, use mobile speed feedback sign.	 
6	Royal Hills and Cedar Ridge		x					There is a utility box just east of the intersection in the walking path of the south sidewalk. E corner drain is installed with gaps aligned with bike wheel path of travel.	Engineering: Utility needs to be moved. Replace or rotate drain cover.	




Observation Pt.	Intersection	Community Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	Image
6	Royal Hills and Cedar Ridge		x					There are no crosswalks on the southeast and northeast crossings.	Install crosswalks	
6	Royal Hills West of intersection			x				Steep grade encourages high speeds by cars.	Enforcement: Install flashers to prepare drivers to stop.	
7	Glenwood Ave SE and 16th Ave SE, northeast crossing		x					There is no crosswalk and too long of crossing distance. Traffic travels too fast downhill approaching Cedar Ridge.	Engineering: Adding in a crosswalk here could but increase awareness that students are using this intersection to cross. Work with Engineers to see if a bulb out would be appropriate to reduce crossing distance and slow turning cars. Add school children sign, or speed limit sign be placed halfway down the hill. Other options to consider would be slow down signs, flashing signal, children crossing sign. There is also an opportunity to use a painted circle or some kind of surface treatment to the pavement that would alert drivers that this intersection is near a school.	
7	Glenwood Ave SE and 16th Ave SE, southeast corner		x					There is a uneven sidewalk surface possibly from water damage. Knocked down fence suggests that drivers have lost control of their cars here before.	Engineering: One curb cut has a textured stamp, the other has no tactile surface. Repair the sidewalk.	


Observation Pt.	Intersection	Community Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	Image
8	Glenwood Ave SE and Lake Youngs Way SE			x				Cars may not stop and look for traffic and students.	Enforcement: Narrow the NE side with turtles/foglines/bulbouts, etc.	
9	Lake Youngs Way SE and Kirkland		x		x			There is not a crosswalk on the northwest corner. Many students will cross midblock between Kirkland and 17th instead. Observed speeding cars. Storm drain at W corner has holes parallel to the path of travel that might catch bike wheels. Similar drain hazards are located on south side of Kirkland bordering Tiffany Park.	Engineering: This intersection should be considered as a location that could benefit from an additional crosswalk or possibly tightening the east corner with bulb out/curb extension. Install new drain covers Education: Encourage students to cross at the crosswalks not across the unmarked street north of the crosswalks.	
9	Lake Youngs Way SE and Kirkland		x					Poor ADA access on the north corner of intersection, sidewalk	Engineering: Add a curb cut for ADA access.	
10	Lake Youngs Way SE between Kirkland and 17th Ave SE (east side of the street)				x			Adults and kids cut through the school parking lot and cross Lake Youngs Way SE between Kirkland and 17th Ave SE. This is done by day care center kids and employees, and parents picking up their kids.	Education: Work with the owners of the day care center to get them to cross with students at designated crossing locations. Consider working through the day care licensing bureau.	

Tiffany Park School Grounds



Observation Pt.	Intersection	Community Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	Image
SG1	(grounds)School building on the northeast side		x					Thermoplastic near the crossing outside of the NE side of building. Thermoplastic is slippery, no traction.	Engineering: Need better material to provide traction for people walking.	
SG2	(grounds)Front of school		x					Fire exit is often blocked by parent pick up cars. School placed cones to prevent parents from parking here. Messaging is confusing, since entire curb is painted red, and is signed as a firelane for the who length of the pickup area.	Enforcement: Confirm with fire marshal and principal that this space must remain open during drop-off pickup process. Other schools in the district allow parents fire lane entrance if they wait in their cars. Paint the entire parking space red to discourage parking Change or add sign to indicate "NO WAITING THIS SPACE" Connect cones with knotted rope to discourage parents from moving the cones.	
SG3	(grounds)Student pickup and dropoff location in front of the school		x		x			Students cross the pickup lanes with or without adults and walk through the planting strip instead of using the marked crosswalks. Students walk in front of traffic to reach the far pickup lane.	Engineering: Encourage people to use the crosswalks by eliminating the passage through the planting strip. Replace the bushes with thick, thorned plants and/or install a 4'+ fence down the planter strip. Paint a yellow stripe on the sidewalk 18"+ back from the pick-up lane. Educate students that they must not cross into the buffer zone. Education:Students need to learn to stand in back of the yellow line.	
SG4	(grounds) School Parking area		x					Poor ADA access	Engineering: Consider raising the crossing area to form a speed table - slows cars and makes walkers more visible. Create ADA access to parking area	

Observation Pt.	Intersection	Community Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	Image
SG5	(grounds) Sidewalk along exit driveway on school property. East side of property.		x					A narrow sidewalk along fire lane encourages students to travel across the grass hill instead walking around to a safer section to cross.		
SG6	(grounds) Lake Youngs Way SE and north entrance of school property		x					Cars exiting the parking lot pose a danger to kids. Long exposure time for kids crossing here. Exit needs to be wide enough to accommodate 2 lanes of traffic (left turning cars, and right turning cars), but is wide enough to accommodate about 4 lanes. One participant suggested that width may be designed around garbage truck needs.	Engineering: Install a stop sign. Extend on-grounds curbs in parking lot to reduce lane width. Contact sanitation company, identify minimum driveway width, and confirm that garbage pick up doesn't occur during pickup/dropoff times.	
SG7	(grounds) School Parking area - spill over			x	x	x		Outside the parking lots during early pick-up (3:05-3:10pm): Early pick up has cars double parked, parked in crosswalks, parked right outside the parking lots, right next to crosswalks. This blocks visibility for crossing guards.	Enforcement: Encourage children to only use crosswalks after school and discourage jay-walking Education: Need better signs where parents can park when they pickup kids after school. Encouragement: Encourage children to only use crosswalks after school.	
SG8	(grounds) Northside of school property near backstop of ballfield		x	x				Graffiti, possible gang activity	Engineering: Clean graffiti off building. Enforcement: Need graffiti cleaned off	
SG9	(grounds) Lake Youngs Way SE and northwest entrance to school		x					Fence is sometimes open and sometimes locked.	Recommendation: School can communicate with the rec baseball team regarding the locking of the gate. Currently, there is a not a lock on the gate but it is often locked during other months of the year. It is hypothesized that this is to lock in the HoneyBucket during the baseball season.	

Observation Pt.	Intersection	Community Asset	Engineering	Enforcement	Education	Encouragement	Policy	Field Observations	Recommendation	Image
SG10	(grounds)Lake Youngs Way SE and northern most corner of school property	x						No crosswalk	Engineering: Work with City to determine whether crosswalk is possible.	
SG11	(grounds)Northeast entrance to school	x						Poor ADA access	Engineering: Install an ADA ramp.	
SG12	(grounds) pick up droff off area	x						Width of this portion of the driveway is 3-4 car widths at the south end, leading to traffic chaos.	Engineering or Enforcement: Extend parking lot island curb edges to maintain a constant width for the cars to travel creating greater clarity and direction for parents. Use paint to crosshatch areas to better define travel areas in the short term.	
SG13	Crossing guard uniform	x						Student crossing guards could be brighter and have additional reflective hats to make them more visible. In particular, using a hat would bring the height of the reflective material up about a foot, increasing visibility	Purchase new reflective or high visibility flourescent orange or yellow hats. Grants are available for these.	

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.

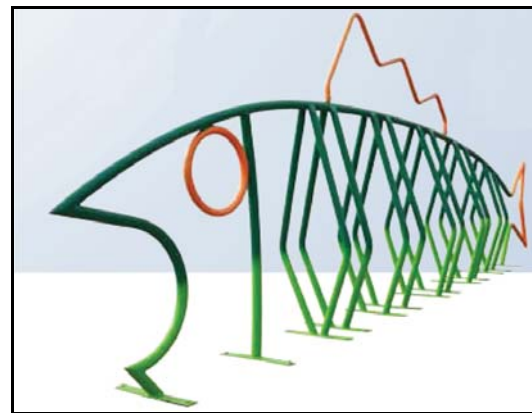


“Wheel-bender” racks (above) can damage wheels and don’t allow frames to be locked to the rack.

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