Toward a Livable Southeast Colorado Springs: A Walkable and Age-Friendly Communities Workshop

Marine -

Prepared by Dix.Hite+Partners For AARP Colorado and the Innovations in Aging Collaborative October 2017

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The image on the cover depicts a key opportunity in Southeast Colorado Springs, as observed by the Dix.Hite+Partners and AARP project team in October 2017 and further explored in this report. On this page, one of Colorado Springs' many attractions, the Garden of the Gods, which draws residents and visitors alike to the greater area.



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Walking audit participants

The Age-Friendly Movement

Various trends are changing the projections for future travel and housing demands in North America; that is, they are changing our understanding of the types of transportation systems and neighborhoods people want now and will want in the future.

Aging populations, rising fuel prices, growing traffic problems, increasing health and environmental concerns, and changing consumer preferences are all increasing demand for age-friendly design and active modes of transportation, such as walking, cycling and public transit.

The age-friendliness of any community whether urban, suburban or rural—is heavily influenced by land-use and transportation planning and housing design and policies. The benefits of age-friendly community design are numerous, as expanded upon on the pages that follow. In sum, where it is supported through policies, programs and projects that favor active living, the entire community benefits.

As described in other parts of this report, it will be the rebuilding, re-purposing, retrofitting and infilling of land and infrastructure in places like Southeast Colorado Springs that will improve prosperity, health and well-being.

The Age-Friendly Network

Launched in 2008 by the World Health Organization and led in the United States by AARP, the Age-Friendly Network has spread to over 90 locations across the country, including large metropolitan cities and small rural towns.

By providing a detailed framework for improving the livability of a community and offering a variety of tools to assess the needs of each individual location, the Age-Friendly Network has successfully improved the quality of life for thousands of older adults across the nation.



Age-Friendly Colorado Springs

As a participant in the Age-Friendly Network, the City of Colorado Springs partnered with AARP Colorado and the Innovations in Aging Collaborative to create an Age-Friendly Colorado Springs action plan. Adopted in 2016, the plan notes that the livability index for Colorado Springs is just 53 out of 100, only slightly above the nation's average score of 50.

To improve the score and make the region more age-friendly, the plan calls, in part, for transforming outdoor spaces, buildings, transportation and housing to be more walkable and livable. To identify opportunities for doing so in a specific area, an Age-Friendly Communities Workshop was held in October 2017. This report documents the outcomes of that workshop.



Why Livable, Age-Friendly Design Matters

Throughout the country, we have applied advanced engineering to move more cars and to move them faster. The result too often is streets that accommodate cars but deter people from active modes of transportation such as walking, biking and using transit. Land uses like strip malls, cul-de-sacs, poorly sited schools, and single-use zoning tend to compound the problem and perpetuate a dependency on automobiles. These factors matter greatly because the built environment plays a significant role in health and well-being by either encouraging or discouraging physical activity.

Today, two out of three American adults 20 years and older is overweight or obese. In 2008, about half of all adults 18 years and older in the U.S. had at least one of six chronic illnesses: cardiovascular disease, arthritis, diabetes, asthma, cancer or chronic obstructive pulmonary disease (COPD).

While we know that physical activity is good for us, 60 percent of Americans do not meet the daily recommendations set by the Centers for Disease Control and Prevention. Yet, adults living in highly walkable neighborhoods engage in 41 minutes more of total physical activity per week than those in low-walkability neighborhoods. Further, consider:

 A study in the Journal of the American Planning Association in 2006 found that for every five-percent increase in walkability, a community could expect more than a 30-percent increase in "physically active travel" and nearly a quarter-point reduction in individual body mass index, which is a common indicator for obesity and health. The increase in walkability was also correlated with more than a five-percent reduction in air pollutants that are associated with vehicle travel. "An age-friendly city is not just 'elderly-friendly." Barrier-free buildings and streets, for example, also enhance the mobility and independence of people with disabilities and young families with small children."

- From Aging in the Pikes Peak Region, a 2015 report from the Innovations in Aging Collaborative



There are many reasons to support active living and walkability.

- Active transportation incorporates exercise into one's daily schedule and eliminates the stress of driving on congested streets.
- Health care costs are reduced when people lead active lifestyles.
- A five- to 10-mph reduction in traffic speeds increased adjacent residential property values by roughly 20 percent. Reduced traffic volumes on residential streets increases home values by an average of 18 percent.
- Active transportation infrastructure is far less expensive than building new roads and parking.
- Active transportation provides opportunities for social connections and community building.
- A 10-point increase in Walk Score increases commercial property values by 5 percent to 8 percent.
- An EPA study indicates compact infrastructure is up to 47-percent less expensive than conventional development patterns.
- Active transportation is good for tourism. In 1992, an estimated 32,500 visiting cyclists spent \$13.1 million in Vermont.²³ Similarly, 680,000 visitors bicycle in North Carolina's Outer Banks yearly, generating \$60 million annually. About 1,400 jobs are supported locally in North Carolina from expenditures made by bicyclists.

 Analysis published in Preventive Medicine in 2010 indicates that installing sidewalks on all of a city's streets would increase physical activity enough to offset weight gain in about 37 percent of the population, leading to healthcare savings likely to be enough to repay the cost of installing the sidewalks.

The built environment also reflects our social inequities. Seniors are overrepresented in intersection fatalities by a factor of more than two-to-one. Seniors also are at great risk for social isolation once they lose their ability to drive. In fact, half of all non-drivers 65 years and older—about 4 million Americans—stay at home on a given day because they lack transportation.

But improved health and social equity are not the only reasons to modify the built environment to be more supportive of active transportation. Forty percent of baby boomers say they don't have enough savings for retirement. This means seniors will continue to work and transportation choices will become critically important. As the senior population grows faster than any other age group, towns that are addressing walkability are better suited to meet their needs.

When cities and towns provide equitable access to a complete transportation system, they send the message that people—not just cars—belong. No matter one's age, income, ability, or mode of transport, the place works and the benefits are tremendous. Our street design can minimize those things that halt productivity (congestion, accidents) because users know where they belong, how to navigate and how to interact with others.

In too many parts of the U.S., bicycling and walking are considered recreational activities. However, when we focus on walkability and its economic benefits, we build strong communities that are more prosperous and that work for all. Factors improving walkability include:

- Destinations within walking or biking distance of each other, such as retail shops located near offices and housing, and schools within neighborhoods.
- Street connectivity, ideally in a finegrain grid without unnecessary cul-desacs. Also, sidewalks or trails that allow people to move comfortably.
- Road widths that foster lower vehicle speeds. The wider a road or vehicle lane is (or appears to be), the faster the driver tends to go. The faster cars are traveling, the less safe and comfortable a person is walking or bicycling.
- A sense of security and "eyes on the street." This is created by orienting the homes and buildings toward the street, and providing transparency—occupied buildings and homes with windows and doors at the street level—so occupants can watch over the street.

Key Design Concepts

*The following terms were compiled by the Walkable and Livable Communities Institute to create a shared understanding of basic livability concepts. Please also see the appendix of this report for a series of fact sheets from AARP addressing several of the most common misconceptions about the tools of livability.

Active Transportation: Also known as nonmotorized transportation, this includes walking, bicycling, using a wheelchair or using "smallwheeled transport" such as skates, a skateboard or scooter. Active modes of transportation offer a combination of recreation, exercise and transportation. (See Victoria Transport Policy Institute, www.vtpi.org.)

Aging in Place: Also called, "Living in Place." The ability to continue to live in one's home safely, independently and comfortably, regardless of age, income or abilities. Living in a familiar environment and being able to participate in family and other community activities. (See National Aging in Place Council, <u>www.ageinplace.org</u>.)

Charrette: [pronounced, "shuh-RET"] A collaborative session to solve design problems that usually involves a group of designers working directly with stakeholders to identify issues and solutions. It is more successful than traditional public processes because it focuses on building consensus. (See Walkable and Livable Communities Institute, www.walklive.org.) Complete Streets: Roads that are designed for everyone, including people of all ages and abilities. Complete Streets are accessible, comfortable for walking and biking, and include sidewalks, street trees and other amenities that make them feel "complete." (See National Complete Streets Coalition, www.completestreets.org.)

Head-Out Angled Parking: Also called "backin" or "reverse" angled parking, this is arguably the safest form of on-street parking. It offers multiple benefits, including creating a sight line between the driver and other road users when pulling out. Additionally, head-out parking allows the driver to load their trunk from the curb, instead of adjacent to the travel lane. And for drivers with young children, seniors or others who need extra help, the open car doors direct passengers to the safety of the sidewalk behind the car, not into traffic. The process of parking in a head-out angled spot is simple – a driver signals their intention, slows, pulls past the spot and then backs into it, which is roughly equivalent to making only the first maneuver of parallel parking.

Livability: In the context of community, livability refers to the factors that add up to quality of life, including the built and natural environments, economic prosperity, social stability and equity, educational opportunity, and culture, entertainment and recreation possibilities. (See Partners for Livable Communities, www.livable.org.)



Above: Head-out angled parking is safer for all people, including those driving, biking and walking.

Below: This diagram from the City of Northampton, MA illustrates one of the benefits of head-out angled parking: a driver's ability to see oncoming traffic as they pull into the travel lane from their parking spot.



Median Crossing Island: A short island in the center of the road that calms traffic and provides pedestrian refuge. They can be six to 12 feet wide and 20 to 80 feet long. They should be landscaped with low, slow-growth ground cover, and tall trees without branches or leaves at ground height that help motorists see the islands well in advance but don't obstruct sight lines.



Above: A median crossing island in New Ulm, MN recommended during—and built within months of—a walkability workshop.

Mini Circles: Also called "mini traffic circles," these intersections navigate vehicles around a small island about eight to 15 feet in diameter that is either lightly domed or raised. When raised, a mini traffic circle should be visible from hundreds of feet away, creating the feeling of a small park in the neighborhood. The circle should be designed to slow vehicles down to 15 to 18 mph. A proper number of them along a corridor will lower vehicle speeds to 22 to 25 mph along the stretch while helping traffic flow more smoothly due to the decreased number of complete stops.

Rotaries: Sometimes called traffic circles, rotaries navigate cars around very large circulating islands. A traffic circle can be as big as a football field and can include stop signs and signals. These are not the same as roundabouts or mini circles. Rotaries are cumbersome and complicated and can induce higher speeds and crash rates. Many rotaries in North America and Europe are being removed and replaced with the preferable roundabout.

Roundabouts: Also called "modern roundabouts" they navigate cars around a circulating island, usually up to 60 feet in diameter. Roundabouts are ideal for collector and arterial roads, and at freeway on-off ramps. They eliminate the need for cars to make left turns, which are particularly dangerous for pedestrians and bicyclists. Properly designed, roundabouts hold vehicles speeds to 15 to 20 mph. They can reduce injury crashes by 76 percent and reduce fatal crashes by 90 percent. Roundabouts also can increase capacity by 30 percent by keeping vehicles moving. When installing roundabouts in a community for the first time, care should be taken to make roadway users comfortable with the new traffic pattern and to educate them about how to navigate roundabouts properly and to yield as appropriate. For more information about roundabouts, see the AARP "Livability Fact Sheets" in the appendix of this report, and also see the Federal Highway Administration's educational video about roundabouts, at http:// bit.lv/fhwasafetvvideo.

Road Diet: On an overly wide road that has too many vehicle travel lanes to be safe, lanes can be removed and converted to bike lanes, sidewalks, a buffer between the travel lanes and sidewalks, on-street parking, a landscaped median or some combination thereof. A common road diet transforms a four-lane road without bike lanes into a three-lane road (one travel lane in each direction with a center turn lane or median) with bike lanes and street trees. (See Walkable and Livable Communities Institute, www.walklive.org.)



Above: A mini circle in Lawrence, Kansas calms neighborhood traffic.

Below: A modern roundabout in the Bird Rock neighborhood of San Diego, CA smoothly and safely handles all types of traffic, including large trucks, bicyclists, pedestrians and motorists. The roundabout features a truck "apron" around the outside edge of the roundabout that the largest trucks and emergency vehicles can drive over while turning.



Safe Routes to School: A national program to improve safety and encourage more children to walk, bike and roll to school. Focuses on improvements through engineering, education, enforcement, encouragement and evaluation. (See National Center for Safe Routes to School, www.saferoutesinfo.org.)

Sharrows: A "shared roadway marking"—usually paint—placed in the center of a travel lane to alert motorists and bicyclists alike to the shared use of the lane. They help position bicyclists away from the opening doors of cars parked on the street, encourage safety when vehicles pass bicyclists and reduce the incidence of wrong-way bicycling.



Above: Sharrows are prepped to be painted onto this street in Fairhope, AL.

ramps should be on both sides of streets. Where sidewalk gaps exist or ramps are missing, they should be fixed on a priority basis, working out block-by-block from schools, medical facilities, town centers, main streets and other areas where people should be supported in walking and biking. Sidewalks in people-rich areas should be at least eight feet wide and separated from the curb by a "furniture zone" that can accommodate planter strips, tree wells, hydrants and benches. Smart Growth: Growing in a way that expands economic opportunity, protects public health and the environment (See U.S. EPA, <u>http://www.epa.</u> <u>gov/smartgrowth/</u>.)

Street Trees: Street trees not only provide shade and a nice environment, but also help protect students walking and bicycling. When placed within four to six feet of the street, trees create a vertical wall that helps lower vehicle speeds and absorb vehicle emissions. They also provide a physical buffer between cars and children. On streets with a narrow space between the sidewalk and curb (also known as the "furniture zone"), trees can be planted in individual tree wells placed between parking stalls, which further reduces travel speeds. Depending on the species, they should be spaced 15 to 25 feet apart.

Traffic Calming: Using traffic engineering and other tools designed to control traffic speeds and encourage driving behavior appropriate to the environment. Examples include street trees, bulb outs, medians, curb extensions, signage, road diets and roundabouts. Traffic calming should encourage mobility for all modes.

Walking Audit: Also called a "walking workshop," this is a review of walking conditions along specified streets conducted with a diverse group of community members. Participants experience first-hand the conditions that either support or create barriers to walking and biking. (See more about walking audits: Walkable and Livable Communities Institute, <u>www.walklive.org.</u>)



Above: Street trees create a buffer between people and cars, and provide shade and beauty.

Below: Walking audits, or "walking workshops," like the one in Southeast Colorado Springs, give participants an opportunity to see streets through a new lens and observe what works and what doesn't work for active modes of transportation.



Key Findings

The Workshop

The team from Dix.hite + Partners was engaged by AARP, AARP Colorado and Innovations in Aging to help identify changes to the built environment—specifically, with a focus on agefriendliness, walkability and livability—that will support Colorado Springs' initiative to become an age-friendly community. The area of Southeast Colorado Springs—where poverty and crime rates are higher than other parts of the city and residents rely on active modes for transportation for commuting—was selected as the focus area.

As part of this engagement, the Dix.Hite team conducted a brief assessment of key areas in Southeast Colorado Springs the afternoon of Oct. 2, 2017 and participated in an Age-Friendly Communities Workshop on Oct. 3, 2017.

The brief assessment, or "discovery" tour, was centered on the areas surrounding the Southeast Armed Services YMCA, Sierra High School, Silver Key Senior Services, the Sand Creek Trail, S. Academy Blvd. and the Jet Wing Dr. corridor from Astrozon Blvd. to Chelton Rd.

The workshop, which was joined by about 25 people, began with an introductory discussion and presentation by the Dix. Hite team. Participants then embarked on a walking audit that spanned from the Y, past the high school, along the Sand Creek Trail to S. Academy, east on Astrozon and back along Jet Wing Dr.

The group then joined together to discuss findings and to prioritize actions moving forward.

Several key opportunities emerged from these discussions. They include:

- Maximize the value of the Sand Creek Trail by "daylighting" it to make it feel safer and adding at least temporary wayfinding signage.
- Retrofit Jet Wing Dr. and provide safer routes to school for students, families and residents going to Sierra High School, the Y and Panorama Middle School.
- Accomplish the 100-Day Challenge, as described later in this report, that includes "daylighting" and installing at least temporary signage for the trail.



Key Findings

Community Values

Community values and vision are key drivers of great community design. To help ensure the outcomes of the age-friendly workshop honor the community's vision for the future, participants were asked to share their interpretation of Southeast Colorado Springs' vision and values. Listed here, in random order, they are:

- Safety and limited crime
- Economic development and jobs
- Open space, parks and trails
- Walkable streets, safe roads, lighting and Safe Routes for All
- Celebrate culture, diversity and inclusion
- Redevelopment and revitalization
- Social capital and community engagement
- Smart Growth, reduced sprawl, a "controlled footprint"
- Access to services
- Access to healthy food and groceries
- Housing options and diversity
- School excellence
- Transit and transportation options

These same values and vision are reflected in multiple public policy documents, including the Colorado Springs Age-Friendly Communities Action Plan.









During the workshop, participants discussed ways in which changes to the built environment can help support and promote the community's values. Participants shared their priorities and goals throughout the workshop, including during introductions, a walking audit and action-planning sessions.









Existing Conditions

The initial recommendations shared in this report are based on a short visit to the community and shouldn't be considered exhaustive. They do provide a strong starting point, however, for identifying numerous initiatives that will improve health and well-being through age-friendly environments.

The best starting place is to recognize the community's assets, only a few of which are described here.

Celebrating the Good

In addition to its community character, many assets in Southeast Colorado Springs position it for becoming a more walkable and age-friendly community. Some of those assets are:

- The trail system throughout the region is an unmistakable community asset.
- Visionary leadership is engaged, including city and county elected leaders, staff, and board members from key organizations.
- Partners such as Silver Key Senior Services are intentionally locating their offices in the Southeast Colorado Springs area, signaling their commitment to the community and investment in its growth.
- Recent lane striping has provided buffered bike lanes and helped reduce the perceived width of some streets.









Over-built for cars, under-built for people

In general, streets in Southeast Colorado Springs are over-built for cars and under-built for people. Some streets have unnecessary vehicle travel lanes, to the detriment of adjacent businesses and people using other modes of travel. Some streets have lanes so wide that multiple cars could fit within them. This is a serious concern because the wider a street, the more dangerous it tends to be.

Additionally, sidewalks are frequently "attached" to the roadway, meaning there is no buffer between people walking and the cars passing by them. This creates uncomfortable and unsafe conditions that deter people from using active modes of transportation.

Vehicle speeds generally are too high and pedestrians are marginalized

Although the workshop doesn't create an opportunity for a comprehensive speed study, the walking audit left participants feeling that vehicle speeds are too high along various parts of the audit route. Vehicle speeds seemed too fast for areas where people should be expected to be walking or bicycling, such as in residential neighborhoods, near schools and along Jet Wing Dr. and S. Academy.

These overly fast vehicle speeds not only create an uncomfortable environment due to the noise of fast cars passing, but also pose safety risks for all roadway users, including people driving, walking and bicycling. The most vulnerable roadway users—people outside of cars—are at the greatest risk.



Because parts of Southeast Colorado Springs lack many of the design elements that encourage 25- to 35-mph vehicle travel even close to schools, cars go fast and the road is uncomfortable for bicyclists and pedestrians. Note above the wide travel lanes, excessive number of lanes, and wide-open feeling that translates into a runway for drivers, as opposed to a great destination.



SOURCE: Killing Speed and Saving Lives, UK Dept. of Transportation, London, England. See also Limpert, Rudolph. Motor Vehicle Accident Reconstruction and Cause Analysis. Fourth Edition. Charlottesvill, VA. The Michie Company, 1994, p. 663. Many communities throughout the U.S. are reducing posted speed limits to 20 mph on residential streets and are refocusing efforts on traffic-calming and redesigning streets to achieve safe "target" speeds.

Of particular concern in Southeast Colorado Springs are the areas near the YMCA, Sierra High School, near the Silver Key facility and around parks and other schools. These are environments where pedestrians and bicyclists should be expected and the roadway conditions should support safe and comfortable use for all modes of transportation.

Vehicle speeds are affected by street-design features such as sight distance, turning curvature, lane widths, total roadway widths, street trees, the distance (setbacks) of buildings from the street, onstreet parking, curbs, and more. See the appendix of this report for fact sheets that include best practices and references for street designs that support all roadway users, whether in a car, on foot or on a bike.





Top Image: A student attempts to cross S. Academy. Bottom images: Conditions in parts of Onancock, Virginia are similar to some of those found in Southeast Colorado Springs. This road is going to become more walkable and age-friendly through the use of narrower vehicle lanes, lower vehicle speeds, colorized bike lanes, on-street parking, curb-and-gutter, landscape, a safer intersection, and buildings that front and honor the street.

The Sand Creek Trail is an under-utilized asset

The Sand Creek Trail is an impressive investment that can be better utilized to the community's benefit. However, in places, the trail feels isolated and dark. It also can be difficult to find from sidewalks and bike lanes.









Observations and Recommendations

The Dix.Hite team and workshop participants noted that Southeast Colorado Springs has numerous opportunities to greatly improve walking and biking conditions. Some can be accomplished at little cost, while others require a more elaborate process, additional funding and a longer time-frame.

The following recommended policies, programs and projects emerged during the workshop and are informed by the observations and desires of the community. These opportunities also align well with other public initiatives, including the Age-Friendly Colorado Springs Action Plan.

Also, it is important to note that although the age-friendly workshop focused on a relatively small area, many of the conditions observed are representative of other parts of the city. Apply the recommendations of this report to any appropriate places where conditions can be improved.

The recommendations are organized herein by time frame, from a 100-Day Challenge that could be implemented nearly immediately, through short-term opportunities that could be launched or completed within six months to a year; mid-range efforts that may take one to two years; and long-range initiatives that would be launched or completed by 2020. The most significant recommendations are explained in greater detail on the following pages.

The 100-Day Challenge for Southeast Colorado Springs

Adopt the recommendations below as a 100-Day Challenge. The concept of the challenge is to set goals that can be accomplished in no more than 100 days, to maximize existing energies, channel newly created momentum toward action and implementation, allow an established or new committee to demonstrate its commitment to healthier community design, and help create awareness and support for the overall age-friendly initiative.

- Review this report with community leaders and call a meeting of the appropriate steering, or action, committee. At this meeting, build consensus on a specific action plan for the first 100 days and the first six months, based on this report but including changes and additions the committee deems appropriate.
- Sign and "daylight" the trail. Install at least temporary wayfinding signage—such as that available from WalkYourCity.org—to orient trail users and help them understand their distance from key destinations, such as the Y, Silver Key and the schools. Clear brush away from the trail edges, clean up refuse sites and trim up trees to create some space and light around the trail that will make users more visible and help improve safety and increase the sense of security.
- Formally engage in existing community clean-up efforts, and create new ones in areas needed. Getting this initiative launched helps create momentum for the action committee, while also making visible improvements in the community and making the committee's presence known throughout the area.

Short-Term Goals Launched within six months to one year

Maintain sidewalks and landscaping

Sidewalks should be maintained to ensure that even the most vulnerable people—including those in wheelchairs or children on bicycles—can use the sidewalks at any time. In parts of Southeast Colorado Spings, sidewalks are blocked by landscape, utility poles and garbage bins.

Government should prioritize maintenance in areas that should be heavily traveled by pedestrians, such as near schools, commercial centers, and near community centers, churches and medical facilities.

Further, to engage business operators, homeowners and renters in properly maintaining landscaping and sidewalks, develop an education and engagement program, and consider how it can be strenghthened through community clean-up programs.



Overgrown landscape impedes access

Enhance crossings

High-intensity crosswalk markings benefit all. Different materials can be used to make crossings more visible day and night, but low-cost options such as paint—are better than none. In places, faded crosswalks are dangerous, as they send conflicting messages to pedestrians and motorists. In Asheville, NC, (below right) high-emphasis, ladder-style markings with thick stripes send a message that pedestrians should be expected here.

Provide lighting at parks

Although the workshop didn't allow for a comprehensive study of Southeast Colorado Springs, workshop participants noted the need for lighting at parks. Choose ecologically friendly options for park lighting.



Crosswalk markings on S. Academy are difficult to see



Best practice: A high-emphasis crossing with a crossing island in Asheville, NC

Short-Term Goals

Other short-term goals

- Review existing capital improvements budgets to identify streets projects already funded; leverage existing plans and budgets to redesign streets to be people-friendly.
- Tap into existing or create new, if needed – systems for receiving, organizing and responding to reports of maintenance issues that affect people using the streets, such as sidewalk gaps or root uplifts that create barriers.
- Organize walking groups that can not only exercise together and put more "eyes on the street," but who also document or report maintenance issues. Models include the "neighbor walks" in Denver and the AARP/ YMCA programs.
- Establish a connection to the Transforming Safety Initiative that emerged from HB-1326: Community Crime Prevention Initiative. Evaluate opportunities to apply for community grants and small-business loans to bring shops and services to the area, and focus on filling existing storefronts that currently sit empty.

Images: bottom center, vehicles are seen stacking and blocking the bike lane on Jet Wing Dr. in front of Sierra High School; top right, a back parking lot that may be better used for arrival and departure; bottom right, a guide on Safe Routes to School, available at saferoutesinfo.org and in the appendix of this report.

- Stay engaged and formalize the committee's role in Plan COS.
- Evaluate and consider re-design of the arrival and departure process at Sierra High School. Currently, vehicles queue in the bike lane along Jet Wing Dr. in front of the school (image below). Apply best practices in Safe Routes to School planning available from www.saferoutesinfo. org and saferoutesnationalpartnership.org.) Consider utilizing the parking lot adjecent to the baseball field (image to the right) as a pick-up and drop-off area, which would allow vehicles to stack on the property and off the streett. However, it is critically important to maintain a separation of modes; thus, avoid reconfiguring the process in a way that would put walkers, vehicles and buses in conflict. See the SRTS guide on dropoff and pickup in the appendix to this report.





Drop-off and Pick-up Lane

A drop-off and pick-up lane is an area on a street adjacent to school grounds or directly on the school grounds that is dedicated to the loading and unloading of students by private motor vehicles.

This school created a drop-off and pick-up lane on the street adjacent to school grounds. The picture to the left shows a corral where children wait to be picked up. Motor vehicles with identification tags that correspond to an individual student line up in the yellow-lined area. When the motor vehicle progresses to the white-striped loading area, the appropriate child exits or enters the vehicle. Signs, such as the one in the picture to the right, can remind drivers to follow the established process.



Marin Horizon School, Mill Valey, California.

An on-site drop-off and pick-up lane can employ the same general technique as in the on-street drop-off and pick-up lane. The system illustrated in the pictures to the right uses two lanes rather than one, and the lanes are actually on school grounds. Several motor vehicles in one lane progress to the unloading zone, release the children simultaneously and move out when all the children have cleared the street. The next group of motor vehicles moves into the loading zone from the other line

Tool: On-street and On-site Drop-off and Pick-up Lane

- What is it and how does it work? • A lane designated for drop off and pick up of stu-
- May be on school grounds or on street adjacent to school.
- Benefits strategy provides • Speeds up and provides order to the drop-off and

pick-up process. Key factors to consider

- Clearly delineate zone and define process.
- The student loading area should be at the far end of the lane to maximize vehicle storage. In some cases two storage lanes may be used.
- Unload or load three or four motor vehicles at a time.
- Do not create a process that negatively impacts students arriving on foot or bicycle, and do not encourage more parents to drive students to school.



Mid-Range Projects Completed within one to two years

Reduce vehicle speeds throughout

In places where people should be expected to be walking—such as in downtowns, near schools, in residential areas, near medical centers and in commercial districts, vehicle speeds should be low and safe. Start by reducing the posted speed limit.

However, recognize that drivers will respond to the cues the street provides beyond the posted speed limit. In Southeast Colorado Springs, the "design" speed of many streets is higher than the posted speed limit. Drivers have a hard time obeying posted speed limits when the design speed encourages different behaviors.

Overly wide lanes tend to increase vehicle speeds and increase the severity of injuries when crashes occur. Narrowing lanes is relatively easy and inexpensive; sometimes, it just takes paint. Apply bold edge stripes that are 8 to 12 inches wide to improve visibility and safety. Where there is room, add six-foot-wide bike lanes, and if there is additional room, use the space for on-street parking or a zebra-striped buffer zone. Retain on-street parking where it already exists. If more parking is needed, consider head-out angled parking, which is arguably the safest form of parking. See the fact sheets in the appendix of this report for more information on parking. Right: Many streets throughout Southeast Colorado signal to drivers that it's okay to go fast, even near trails and residences. In contrast, streets can be designed to foster lower, safer vehicle speeds and still move high volumes of traffic, through the use of narrower lanes, narrower overall roads, shorter sight distances, landscapes, high-emphasis markings, and moreefficient intersections. Note the traffic-calming effect of the "road diet" below in Santa Cruz, CA, where a fourlane road was converted to one lane in each direction plus a center turn lane. Colorado Springs is already adopting road diets and lane narrowings in places. See the appendix for more about road diets.





Provide mid-block crossings and median crossing islands

There is a demand for pedestrian access throughout the walking audit area. The demand includes "desire lines" where people want to naturally cross due to the destinations that are across the street from each other, such as homes located across from a school. Unfortunately, the streets around Sierra High, Panorama Middle and the Y don't provide many safe crossings, whether at intersections or mid-block. People cross mid-block anyway. As WALC Institute Co-Founder Dan Burden explains, "People vote for a good design or a poor one with their feet Generally, we don't obey the system when the system is failing us."

Especially near schools and other people-rich places, provide mid-block crossings and crossing islands. Incorporate the following if possible.

Curb extensions

Also called "bump outs," curb extensions visually narrow the street, encourage drivers to slow down, and minimize the crossing distance, putting people in the path of vehicles for as short as possible. Temporary options include planters and bumps.

Crossing island with a 'Z' design, or angled walkway

Crossing islands provide pedestrians a safe refuge and reduce the distance they must cross at one time. Angle the walkway through the island to position the pedestrian to face oncoming traffic. In combination with curb extensions, crossing islands can reduce crossing distances to eight feet at a time.





A 'Z' crossing in Kailua Town, HI



Temporary curb extensions: rubber bumps and paint



Temporary: moveable curbs and potted plants

A raised table

Especially near schools, it can be helpful for crossings to be raised in order to make people like youngsters—more visible. The raised table also serves to slow vehicles down to safer speeds. Where snow must be accommodated, the table can be sloped to allow for snow plows.

Signage and high-emphasis markings

A best practice in signage for mid-block crossings is to ensure drivers see signs on both sides of the street as they approach. Also, the crossing itself should have high-emphasis markings such as those shown below and to the right.





Mililani, HI



Photo-vision for signage on both sides of street





Golden, CO



Mid-Range Projects Completed within one to two years

Retrofit Jet Wing Dr.

The design of Jet Wing Dr. was noted as a key opportunity during the workshop. Recent re-striping of the road has helped by reducing vehicle lanes and providing a bike lane. However, vehicles still pass through the area at speeds that feel unsafe. Also, given the location of residences immediately across the street from Sierra High and the YMCA, high-empahses mid-block crossings are needed.

As the Sand Creek Trail becomes better utilized, Jet Wing will be an even more important corridor, as the trail emerges from the creek area just south of Sierra High on Jet Wing Dr.









Students and residents are observed walking all throughout the area close to Sierra High and the Y, especially during school arrival and departure times.



Jet Wing Dr., Existing Conditions: The street is overly wide, especially for what appeared during three visits at varying times of day to be a relatively low volume of traffic. Vehicle speeds feel too fast and should be lowered as part of a retrofit effort. The lack of a mid-block crossing creates a significant barrier for pedestrians. Notable positive qualities include the street trees that help create a sense of place, the buffered bike lane and the application of only one vehicle travel lane in each direction.



Jet Wing Dr., Vision for an Age-Friendly Future: Bike lanes are provided on both sides of the street and are buffered with hardscape. A high-emphasis crossing calls attention to the presence of pedestrians. Appropriately sized street trees are planted on the eastern side of the street, which helps slow down vehicles to safer speeds and also provide a safety buffer between people and cars. A crossing median provides refuge and futher calms traffic.



Jet Wing Dr., Vision for an Age-Friendly Future: If right-of-way is constrained and a bike lane can't be added to the eastern side of the street, consider a two-way cycle track. In that case, follow design recommendations provided by the National Association of City Transportation Officials in their publication, Urban Bikeway Design Guide, at nacto.org

Mid-Range Projects Completed within one to two years

Clear, Sign and Promote the Trail

Sand Creek Trail is an underutilized asset with great potential to become an important link between surrounding neighborhoods and the area of Sierra High, Panorama Middle and the Y.

In addition to daylighting the trail by cutting back underbrush, trimming up trees and clearing debris, develop a wayfnding and signage program that establishes a visual identity and sense of place for the trail, and that helps orient users to where they are and how far they are from destinations.

As depicted in these images, in places, the trail feels spooky and isloated, and can be difficult to find.













Sand Creek Trail, Existing Conditions: Entry to the trail is difficult to spot from Jet Wing Dr. From the bike lane on the street, there isn't a ramp onto the trail. The trail generally feels placeless and somewhat spooky.



Sand Creek Trail, Vision for an Age-Friendly Future: A raised mid-block crossing provides access to the trail from the street. Shade and seating create a sense of place and a spot from which to watch the baseball game. Wayfinding pedestal provides visual identity and calls attention to the trail's presence.



Sand Creek Trail, Existing Conditions: Entry to the trail is difficult to spot from S. Academy. The trail generally feels placeless and somewhat spooky.



Sand Creek Trail, Vision for an Age-Friendly Future: Wayfinding pedestal creates visual identity and establishes the entrance to the trail. The larger concrete pad better accommodates bicyclists and multiple users. Seating is provided.



Sand Creek Trail, Vision for an Age-Friendly Future: Even better, a small amount of right-of-way is utilized to provide adequate width for the sidewalk across the overpass.



Sand Creek Trail, Existing Conditions: Where the trail crosses S. Academy, the section under the street is dark and ominous. Also, it's not clear where the spur leads. Overgrowth of trees create a sense of danger.



Sand Creek Trail, Vision for an Age-Friendly Future: A new visual identity and sense of place are conveyed through wayfinding and public art. Lighting of the underpass and daylighting of the trail increase safety and improve the feeling of security. Distances to nearby destinations are conveyed in the pavement markings. Seating and receptacles are provided.

Mid-Range Projects

Completed within one to two years

Other mid-range projects

- Identify and contact the organizations already doing like-minded work within the community, and de or launvelop a plan for engaging them in age-friendly or utilizing their existing resources to advance the age-frienddy initiative.
- Create and implement a community engagement strategy.
- Working with the school administrations, launch a Safe Routes to School program. Walking school buses and bike trains are a great place to start. See www.saferoutesinfo.org.
- Develop a partnership between Atlas, Sierra and Panorama schools and Silver Key for intergenerational programming, mentorship or friendship Identify existing police programs and resources to further enhance safety and feelings of security.
- Formally engage in the Banning Lewis planning process to ensure it is designed to be connected to the broader community and internally people-friendly
- Create a program that helps start-up or popup businesses to utilize empty storefronts, which helps grow the local economy and provide new or added services, while also activating an otherwise empty space and putting more "eyes on the street"

- Launch a farmer's market
- Colorize bike lanes
- Build community gardens and urban gardens
- Open a dog park to serve the area





 Take inspiration from other communities. Envision Jet Wing Dr. providing the same level of support to the Sierra High School, Panorama Middle School and YMCA community as the streets on this page provide their communities. Examples of street tranfsormations reflecting conditions similar to those in Southeast Colorado Springs can be found in the Imagining Livability Design Collection, produced by AARP and the WALC Institute, and available for free online at www. aarp.org/livable and in the appendix of this report.



Buffered sidewalk in Birmingham, AL



Separated walkway in Tioga, FL



Narrow lanes and short median in Austin, TX



Narrow lanes and crossing median: Village Park, NC



Mid-block crossing in Hamburg, NY

Below: This street in Winter Garden, FL is a primary means of access to an elementary school. The street is being retrofit to better support the school community and still move thru traffic. With developable land on three corners of the intersection, the community envisions that a quality public investment—a modern roundabout that will calm the traffic, pictured below middle—will bring quality private investment (below right) that will still allow children to safely and comfortably walk or bike to school.


Long-Term Initiatives Launched by 2020

Redevelop Panorama Park and include intergenerational programming

Panorama Park has the potential to become a true community gathering place. Study it for redevelopment or reprogramming. Ensure new designs and programs include intergenerational activities. After all, according to Senior Lifestyle, "Older adults who regularly volunteer with children burn 20% more calories per week, experienced fewer falls, were less reliant on canes, and performed better on memory tests than their peers." Best practices and guidance are available from Generations United at www.gu.org.

Fill in Trail Gaps

Complete trail gaps to connect the city's parks by trail. This serves not only as an important recreation destination for locals, but also provides a network that creates transportation options for people traveling from one part of town to another.

Convert someplace like the old Sam's into a public market

Public markets are growing as tools for community revitalization. In the Southeast Colorado Springs area, existing facilities may be good candidates for conversion to a public market.

Workshop participants mentioned the old Sam's Club, in particular. Guidance and case studies are available from Project for Public Spaces at www. pps.org.



The Halifax Seaport Farmers Market in Nova Scotia. Image: Nicole Bratt via Flickr. Obtained via pps.org.

Long-Term Initiatives Launched by 2020

Study a Modern Roundabout at Astrozon Blvd. and Jet Wing Dr.

The modern roundabout is deemed by the U. S. Dept. of Transportation and other agencies to be a "proven safety countermeasure" because it reduces the number and severity of crashes when compared to a signalized intersection. Roundabouts also help create a sense of place and arrival, and are less expensive to operate than signalized intersections.

Due to its importance in connecting people to places, and the speed at which vehicles seem to be passing through it, the intersection of Astrozon and Jet Wing may be an ideal location for a roundabout. The volume of vehicles in the area roughly 5,800 "annual average daily traffic" on Astrozon and 6,800 on Jet Wing—likely warrants only a single-lane roundabout. Also, east of the intersection, the street already is only one lane in each direction. A roundabout could calm traffic and create a gateway for the Jet Wing corridor.

Conduct a study to determine if this is the right location for a modern roundabout. Also, design details are important; ensure they are done by an engineer experienced with modern, single-lane roundabouts as traffic-calming tools.

See the case study on the following page and the appendix for more about modern roundabouts.





City of Bend Transportation Engineer Email: rlewis@bendoregon.gov

As roundabouts become increasingly popular, a growing number of local and state officials are discovering how challenging it is to educate the public and ease concerns among those driving large vehicles about whether they'll be able to pass through an intersection that has one.

The city of Bend, OR, has a long history with roundabouts, having installed its first one in 1999. It was a developer named Mike Hollern who persuaded the city council to approve the first one, showing them slides and a home video that demonstrated how they work in Europe.



Single-lane roundabout near the high school in Bend, OR

For Bend City Council members, it was a traffic management approach that made sense, and they moved quickly to institutionalize roundabouts once they saw how well they worked.

The city council adopted a "Roundabouts First" policy the very next year, requiring city staff to always consider a roundabout first unless they can convince the city council that it won't work at a given intersection.

Today this city of 80,000 has 31 roundabouts, with four more in design, including some located by schools. There is a single-lane roundabout at NE 8th Street and NE Franklin Avenue by Bend High School, for example, and just down the road, another roundabout sits next to Bear Creek Elementary.

Using Education to Build Acceptance

In Bend, education has always played a critical role in successfully implementing roundabouts, whether for the purpose of teaching people -including children -- how to navigate them safely or for demonstrating their track record on the safe and efficient movement of traffic.

All relevant city staff went through a formal training process once the "Roundabouts First" policy was adopted. The transportation engineers worked first with police, firefighters and maintenance teams because it was important to get them on board. They did some high-level planning related to response times, queuing, etc., and tweaked their designs accordingly, always trying to match the roundabout to its environment or context. They met with city administrative staff, since they would receive many of the citizen questions or complaints.

The city hosted free, full-day events for all of the designers in town, bringing in national experts to train them on roundabout design. And finally, they took the same training to community groups and neighborhood associations and developed extensive educational materials.

Outcomes

Contact Robin Lewis

The result of Bend's methodical approach to introducing roundabouts is a general comfort level on the part of the public and a consistent track record on how well designed they are for the context and traffic counts. Jeff Monson is executive director of Commute Options, a local nonprofit that promotes active transportation, and he's worked with many kids to train them on how to navigate a roundabout. He's been struck by how safe it feels in Bend even when he's bicycling with kids. "The roundabouts are great," he said. "You can travel the whole way through town without stopping, and you never feel nervous." Monson talks up another feature of Bend's roundabouts as well, and it's an effective placemaking tool that other communities might want to look into: Every one of them features public art funded by Art in Public Places, a local nonprofit.

Summary of Recommendations

100-Day Challenge

- Review this report and build consensus on a specific action plan.
- Sign and "daylight" the trail.
- Formally engage in existing community cleanup efforts, and create new ones in areas needed.

Short-Term Goals

- Maintain sidewalks and landscaping.
- Enhance crossings.
- Provide lighting at parks.
- Review existing capital improvements budgets to identify streets projects already funded.
- Tap into existing—or create new, if needed systems for receiving, organizing and responding to reports of maintenance issues.
- Organize walking groups.
- Monitor the work of the Transforming Safety initiative in Southeast Colorado Springs.
- Stay engaged and formalize the committee's role in Plan COS.
- Evaluate and consider re-design of the arrival and departure process at Sierra High School.

Mid-Range Projects

- Reduce vehicle speeds throughout.
- Provide mid-block crossings and median crossing islands.
- Retrofit Jet Wing Dr.
- Clear, sign and promote the trail.
- Identify and engage the organizations already doing like-minded work within the community.
- Create and implement a community engagement strategy.
- Launch a Safe Routes to School program.
- Develop a partnership between Atlas, Sierra and Panorama schools and Silver Key.
- Create a program that helps start-up or popup businesses to utilize empty storefronts.
- Launch a farmer's market.
- Colorize bike lanes.
- Build community gardens and urban gardens.
- Open a dog park to serve the area.

Long-Term Initiatives

- Fill in trail gaps
- Convert someplace like the old Sam's into a public market
- Redevelop and create programming for Panorama Park, including intergenerational programming and activities
- Study a modern roundabout for Astrozon Blvd. and Jet Wing Dr.

Appendix: Active Living Toolbox

Active Living Toolbox

Livability Fact Sheets by AARP and WALC Institute

The Imagining Livability Design Collection

Town Maker's Guide to Healthy Building Placement

Safe Routes to School Guide for Dropoff and Pickup

Addressing Potential Concerns: Snow Removal (Guidance from the Casper, Wyoming Safe Routes to School Plan)

Engage Residents in Finding Solutions

Effective community engagement is critical when developing policies and projects that impact a community's built form. Regardless of setting – whether urban, rural, large city or small town – the benefits of effective community engagement in projects affecting the built environment are numerous. Effective community engagement improves the success rates of policies and projects affecting the built environment. This is in large part because community engagement helps the agencies and organizations that are leading a project understand and respond to the local conditions that will influence the project's development. For example, agencies that create true community engagement are more successful at adapting to socioeconomic changes that may influence the effort than those that do not conduct effective outreach. Additionally, when people affected by the project are involved from the beginning of the development process, it reduces the likelihood of unexpected or significant opposition when it comes time to implement the project. Community members also have unique knowledge of local contexts - including political, cultural and geographic settings. By interacting with the public and gaining important local insight, project leaders can shape and direct the project in keeping with the community vision and needs.

A conventional model of "public involvement" has been built around complying with legal requirements for issuing public notices about projects and related events, holding public hearings to solicit feedback and incorporating feedback into draft recommendations. The community has been invited in when project leaders have decided input is needed - or when it is mandated by law - and the public hearings, advisory councils, and public comment sessions have formalized the effort. At many public meetings or events, the meeting structure communicates to people that they are to listen and not converse. This model fails to truly engage the public. To engage communities, leaders must move from the conventional model to one that focuses on outreach, capacity-building, inclusiveness and collaboration.

A successful public process starts with developing a community outreach plan that describes the desired outcomes of the project and details the public process, including who the stakeholders and audiences are, how they should be reached, messages, the tools that will be most effective, and how the success of the effort will be measured. Additionally, efforts should be made to conduct workshops, events or meetings in places that are comfortable and familiar to the audiences, and to use language that is clear. Each communication or event should contribute to the public's understanding of the project and its purpose.

Specific outreach tools may include educational workshops, media outreach, paid advertising, surveys, printmaterials such as flyers and brochures, public service announcements, educational videos, slide presentations, charrettes, newsletters, websites and online communications, direct mail, letters to the editor or guest commentaries, councils, partnerships, coffeehouse chats, meetings, interviews, demonstrations, bulletin boards and more. The main point is that each of these elements has been identified and tied to other initiatives with outcomes



Effective community engagement is critical when developing policies and projects that impact a community's built form.

and measures of success so that a quality control and effectiveness feedback loop is in place.

The goal is to engage the community. If the community is not engaged, initially, leaders must take responsibility for developing effective and successful outreach programs that achieves this identified goal. A civic engagement plan allows creators to look at localized efforts to build capacity within the community.

Build Cultural Competence

Ensuring that programs and messages are designed to be relevant, appropriate and effective in different cultures and different languages is important to any successful community outreach. In fact, cultural competence has emerged as a key strategy to improving health and the quality of health care and social services for everyone in the U.S. regardless of race, ethnicity, cultural background or language proficiency. Translating important messages requires strong cultural knowledge, because a word for word translation will not be effective. Reaching people of all backgrounds often requires more than simply translating messages.

To increase their effectiveness, many organizations working with multi-cultural populations are developing "health promoters" programs that recruit people who live in and work in a community to be community educators and liaisons between the program and the community. An example is the DeSoto County, Florida program Promotores/as de Salud that serves Hispanic farm workers. Other communities are working to culturally adapt messages. For example, in California's San Joaquin Valley, campaigns to encourage people to reduce their contribution to summertime smog were developed for English-speaking and Spanish-speaking markets. The campaigns were culturally adapted to focus on types of behavior changes that would be relevant and appropriate in the cultural context of the different audiences. Adaptation of this type requires strong knowledge of the culture and language of the target audience.

Broaden the List of Stakeholders

To build effective community engagement, project leaders should broaden the list of stakeholders and partners whose involvement is sought. Stakeholders and partners commonly include city and county staff, advocacy groups, residents, business operators, property owners, elected officials, community leaders, neighborhood safety groups, school representatives, health agencies, "main street" or downtown groups, charitable non-profit organizations and regional employers. To be more effective, project leaders also should seek the early involvement of churches, news outlets, potential opposition groups and children. Now, more than ever, we identify community outside of geographical areas.

Churches - Across the country, churches build and sustain more social capital than any other type of institution. Thus, project leaders should seek innovative ways to work with church leaders to engage their membership in public projects.

Media - Conventional community outreach plans have treated the media as a means of simply disseminating information. A more effective approach is to engage members of traditional news outlets (newspaper, television and radio) and nontraditional outlets, or "new" media



Health promoters are local liaisons recruited to bridge the gap between the community and active living program.



(online news services, bloggers), as stakeholders and seek their involvement early in the process. Just as project leaders should build capacity amongst residents and within the community, so too should they seek to build capacity with journalists and news outlets.

Opposition Groups - Special efforts should be made to reach out to people and organizations that may be expected to oppose the project. It is important to build their trust and involvement. Try to identify and address their concerns both as part of the public process.

Children & Elders - Children and elders have much to offer in planning and design processes, yet they remain mostly untapped throughout community transformation processes. A child's imagination is a powerful tool; an elders knowledge inspiring. Together, they often create solutions and engage others in a way that can change the whole tenor of the events.

Start with a Base of Shared Values and Build Understanding

The conventional model for public involvement in projects that affect the built environment often engages the public too late in the process, and in a manner that pits interests against each other. For example, holding a public hearing on a proposed project sets up stakeholders to take a position either for or against the project, without any discussion about community values and whether the project supports those values. A better model is to start the public process with educational workshops or visioning sessions that build a base of shared values. In some communities, a vision plan already exists and in those cases, the vision plan should help guide the project development. In other communities, a simple visioning exercise during a public workshop can go a long way toward helping stakeholders see that they generally want the same things for their community.

Approach Engagement as a Two-Way Conversation

Effective public engagement involves much more than telling people about a project. Rather, it actually facilitates a dialogue that leads to reciprocal learning, collaboration and – ideally – consensus. By engaging in reciprocal learning through the public process, project leaders will gain insight and perspective that can help them ensure the project is tailored to meet the community's needs. Community members also will learn from each other.

Support a Coalition of Community Associations and Resident Activists

A coalition of community-based groups, such as the Community Associations and Main Street members, should organize a steering committee to represent the values and goals of the neighborhood, evaluate the recommendations of this report, prioritize efforts, and pursue funding for implementation. One of the working group's first tasks could be to reach out to faith-based groups, schools, residents and organizations to build capacity within the community. Because community is defined less by geographical boundaries and more by our habits and routines, this working group may need to reach outside of the annexed area, to organizations and groups that residents belong to, in order to meet neighbors. The Neighborhood Revitalization Group could look to the Port of Bellingham project and the success of its working group as a model: <u>http://www.portofbellingham.com/index.aspx?NID=344</u>.



Children and residents care about the built environment and the experiences it allows. Broadening the list of stakeholders ensures better representation.



TOOL

Take Them to the Streets

Be done with boring public-involvement meetings

When invited to participate in public processes, many people envision dreary meetings in stuffy settings where government employees give presentations on a subject, a project or a goal, and participants are then asked to take turns sharing their feedback.

Who can blame people for not showing up, if they didn't already have a strong interest in the topic? The conventional format for public-involvement processes sometimes is the only option, but in most cases it doesn't build community interest. In fact, it can be downright boring and it fails to capitalize on opportunities to build social capital through the process or engage people in reciprocal learning. Even workshop formats that aim to be more educational can fall short in efforts to build a shared understanding of the issues being addressed or to make participants feel truly engaged in the process.

One approach being used by more and more communities throughout the country is to conduct active, or experiential, workshops that get participants out into the community to explore firsthand what shortcomings exist, and how to improve upon those conditions.

Active workshops include educational presentations, but focus on active learning and firsthand experience. They don't have to be long events – a successful one can be as short as three hours, if planned well.

One of the greatest benefits of an effective active workshop is that it also helps build social capital in the community. When people are taken outside of the classroom or presentation structure and are put in the actual context—such as for a walk along a street to evaluate the built environment—where they can converse freely and naturally with others, many shared interests and connections emerge.

This can foster partnerships that cross any existing real or perceived boundaries, such as differences in generation, culture, socioeconomic status or geography. An especially effective active workshop may even dedicate time toward the beginning of the event to help participants get to know each other through ice-breaking exercises that ideally will lead to long-lasting relationships.

Planning and conducting successful active living workshops require attention to several details that often aren't considered for conventional workshops:

Engage Key Partners Early: Identify community-based organizations, government agencies, healthcare providers, employers, school boards, the media and other organizations whose members or stakeholders may have an interest in the topic. To address active living, engage transportation, planning, emergency services and public works entities. To address healthy



Above: During a walkability audit in Gulf Shores, AL, participants describe their observations about the built environment. Below, in Helena, MT, participants learn firsthand the speeds at which cars travel through neighborhoods.



eating, engage public health and nutrition entities, as well as growers, grocers and restaurant operators. Engage the key partners very early in the planning process, and then enlist their help to conduct outreach and to issue invitations.

Choose the Right Audit Site: Work with the key partners to identify an audit site that captures the essence of changes needed throughout the community or that will have the greatest impact or potential to produce model projects that can serve as catalysts for other projects.

Draw a Strong and Diverse Mix of Participants: Engage the key partners to identify critical participants, such as community leaders with authority to enact the changes sought. Invite representatives from homeowners' associations and neighborhood groups, local elected officials, business groups such as the Chamber of Commmerce, students, residents and retailers. Ensure that the participants represent diverse interests and backgrounds, and be especially attentive to engaging people who might be opposed to the type of effort being addressed. It is important to get them to the table, build their trust and seek their involvement.

Consider Comfort and Abilities: Give careful consideration to participants' comfort and abilities. Everyone who wishes to take part in the full workshop should be able to do so, and any special needs should be accommodated. If the workshop is held during hot or cold months, conduct the outdoor portions at comfortable times of day.

Encourage Relationship-Building Next Steps: An effective active workshop will motivate and inspire those who take part, and many will be eager to contribute their energies toward enacting change. They will need to draw upon each other's strengths, stay in contact, offer each other support, and share information to undertake the important work to be done. Encourage them throughout the workshop to network with each other and exchange contact information. If possible, form a "working group" and decide upon a meeting date before the workshop ends; invite people to opt in.



Talking through concerns and engaging students in the planning processes builds understanding

Dan Burden, co-founder of the WALC Institute, says anyone doubting the power of an active workshop should consider this story:

"We once were doing a walking audit on Main Street and 7th Street in Grand Junction when I said to the group, 'Until you have someone buy and replace that old gas station on that corner, this corridor will never fully come alive.' A member of our group left us at that point. He crossed the street, made an offer to the owner, and bought the gas station on the spot. Today, it is a mixed-use building, and it has brought life and vibrancy to the entire corridor."

This not only reinforces the importance of having the right people involved in active workshops, but also illustrates the power of the effort.

Visioning Versus Hearings and Process

The old way of business gives way to new approaches

In the world of real estate development, the cliché is that nobody shows up at a public hearing to comment on a project unless it's in their backyard and they hate it.

But all too often, the real-life scenario is that people who get up to speak against a development never heard about it until a neighbor noted the announcement of a public hearing in the newspaper. By then, everyone in the neighborhood is complaining that they weren't consulted about this proposal to put a strip shopping center on land once eyed for a community center.

It's the way a lot of development gets proposed and approved. There are regulations in the building and zoning codes and a review process that the developer has to navigate. Then there's a public hearing where elected officials ask questions and residents get a chance to comment. Once the developer clears those hurdles, the deal is often done.

But the old way of doing business is starting to change, and it's giving way to new approaches

to public engagement that are as varied as the communities and local governments involved.

Residents Really Want to Be Heard

Increasingly, local officials are engaging residents in visioning and brainstorming sessions when they have an area of open land or a high-profile redevelopment site that they know is a target for developers.

It's not enough to give people their three minutes to speak at a public hearing, where a little red light goes on when their time is up. There's no give and take in that. It's just a formality.

Most people want to hear about development plans as they're evolving. They want to have a conversation about them; an exchange of ideas about the pros and cons.

Even if their ideas aren't ultimately adopted, it's important that they get the chance to share them fully. And there are many workshop and meeting formats to accomplish that goal. A good starting point is a community visioning session, which might best be likened to a brainstorming session.

Say, for instance, there's an old boarded-up mill on a ten-acre site in the heart of an innerring suburb. Area residents and business owners are invited to a three-hour meeting in which they're encouraged to break up into small groups to talk about what would work well there. As they throw out ideas for how the property might be used, a facilitator sketches them. After a couple of hours, each of the groups gets up to present their respective vision for the



Increasingly, local officials are engaging residents in visioning and brainstorming sessions. Above, a community values exercise in Bellingham, WA. Below, envisioning potential design solutions in Sacramento, CA.



property, recommending what should be built there and what the area should look and feel like.

Such sessions provide an ideal format for neighbors to advocate for pedestrian-friendly design and good transit connections.

Local governments sometimes go even further with major planning exercises designed to create a blueprint for development over a large area.

In these cases, the right approach might be a more intensive, multi-day charrette where professional planners facilitate discussion among developers, community members, business leaders, environmentalists and other stakeholders.

They hear from housing experts and economic development professionals about the market for various land uses, and from retailers who know what kinds of retail and restaurants would work in a given location.

There are architects on hand to sketch what's discussed and planners to draft policy language, with both getting real-time feedback from participants.

In the end, a charrette aims to yield an actual plan for the study area that is viable and well vetted. One that participants understand at a level of depth and detail that they would never know with any development proposal that's finalized by a development group working solely with local government planners. They understand all of its individual features and the rationale behind them.



In a design charrette, the community voices their desires and concerns while graphic artists sketch out renderings for feedback and vetting.



Set Ground Rules for Facilitators

Set ground rules to improve productivity and success

A safe, friendly meeting environment can help leaders achieve the planned meeting goals and objectives. Establishing ground rules that respect individual rights and responsibilities builds trust among participants and can lead to a successful meeting experience. It is frustrating and unproductive to participants and facilitator alike when opinions are not respected, persons are criticized, and many views are not expressed. Other terms that may be used interchangeably with ground rules include guidelines, group agreements, covenants or norms. In this publication the term ground rules applies to a set of rules that are usually developed at a first meeting and used by the facilitator to manage individual and group interaction.

Here are ground rules for leading a meeting addressing controversial issues.

For Group Members:

- One person speaks at a time when the group is in full session and not at breakout tables.
- All will share ideas in order.
- Questions may be asked to clarify ideas.
- No one may criticize another.
- Ideas may be reviewed to look for themes.
- Feelings may be expressed. They are not to be ignored or denied.
- Discussions are about positions, not personalities.

For the Facilitator:

- Make sure participants are physically comfortable.
- Share the covenants with participants at the outset of the meeting. Repeat the covenants and convey that by being part of the meeting, everyone is agreeing to the covenants.
- Communicate with everyone at his/her level.
- Act as the neutral person. Refrain from giving a personal opinion.
- Maintain a positive group atmosphere.
- Allow thinking time.
- Avoid: lengthy comments, giving verbal rewards for good answers, asking loaded questions or conveying a "know-it-all" tone.

The following guidance is provided by the University of Minnesota Extension's publication, Facilitation Resources - Volume 4. The full publication is available at http://bit.ly/wWsRUJ.



Facilitators need to ensure everyone agrees to the covenants at the outset of the process, and that all voices are heard.



TOOL

Do More than Translate

Build cultural competence by adapting, not translating

Ensuring that programs and messages are relevant, appropriate and effective in different cultures is important to any effort to conduct successful community outreach. But reaching people of all backgrounds requires more than simply translating messages.

Especially in rural communities, messages perceived to have been created by "outsiders" can actually do more harm than good by creating discomfort or mistrust. To increase their effectiveness, many organizations working with multi-cultural populations or in rural communities are developing programs to culturally adapt campaigns and messages.

For example, in California's San Joaquin Valley, the Air Pollution Control District's summertime smog-reduction campaigns encouraged people to change their behavior to be more air-friendly. The campaigns targeted multiple audiences from different cultural backgrounds, with the English-language campaign focusing on carpooling to reduce pollution. The strong cultural knowledge of staff and outside professionals helped project leaders understand that the Spanish-speaking target audience already carpooled as a standard practice. Thus, the Spanish-language campaign was adapted to focus on messages that were more meaningful to the audience: to drive less and keep the car tuned up.

Getting it Right

When culturally adapting messages, consider the following:

Language Doesn't Equal Culture: Although a shared language is important to culture, people who speak the same language often are from different cultures. Be sensitive to the differences and develop appropriate messages.

Start with Strong Cultural Knowledge: Tap the knowledge of colleagues, in-house staff or consultants who live, work or grew up in the culture.

Get Feedback: Work directly with members of the audience to determine appropriate approaches. Use focus groups to screen messages before they are distributed.





San Joaquin Valle

The San Joaquin Valley [Calif.] Air Pollution Control District culturally adapted its summertime smogprevention campaign to focus on the types of behavior changes that would be relevant to different cultures. The English campaign focused on carpooling, whereas the Spanish campaign focused on driving less and keeping the car tuned up. (Images: San Joaquin Valley Air Pollution Control District.)

Learn from Elders and Children

Abilities are valuable, but often overlooked

Design "charrettes" are indispensable tools for hammering out solutions to complex community design issues. Through a mix of public workshops, open houses and creative, intense design sessions, charrettes create a collaborative planning process that harnesses the talents and perspectives of residents, town planners, community leaders and public health officials alike.

In fact, getting all of the right people together for a design charrette is key to ensuring that the outcome reflects the values and goals of the community. People from all sectors of society with diverse backgrounds are needed at a charrette, including local government officials, planners and designers, landscape architects, transportation engineers, nonprofit managers and public health officials.

But even with engaged and motivated participants from all relevant backgrounds, the charrette still may be missing two very important groups that can provide valuable insight about how to design a community to be healthier and happier: elders and children. Children have much to offer in the community planning and design process, yet they remain mostly untapped throughout community transformation processes.

A child's imagination is a powerful tool; they can dream up the perfect community in which to live, play and go to school. Beyond the power of their imaginations, they also can bring very practical solutions to the table. For example, children often are aware of shortcuts to the places they go that could be formalized into trails and added to the community's pedestrian network. Elder-child charrettes also help publicize the public process being undertaken and build social capital by bringing generations together. They foster collaboration among school representatives, local government staff and parents.

And involving elders and children in public processes can change the whole tenor of the events. Children very often speak readily about important values. Their honesty helps raise the discussion to the level of values and guiding principles. Elders bring a lifetime of observations and community history to share.

Simply asking a child the question, "What would you like to see on your walk to school and back?" can provide meaningful insight into the community that could be. The answers will capture community values, important street and sidewalk connections, playful aesthetics and other place-making elements that might be overlooked. This, combined with an elders perspective can yield surprising and beautiful results. The boundless imagination and colorful creativity of children combined with sage wisdom clarifies values quickly.



Above: Children often speak readily about important values - such as providing equipment that allows all children of all abilities the opportunity to swing.

Below: A children's charrette in Glenwood, CA.



Planning a child-elder design charrette requires attention to several details that a standard charrette doesn't require. Don't let these details be a deterrent, though; the benefits far outweigh the added responsibilities.

Keep it Fun. The chief objective is to keep a charrette fun and engaging. Work with schools, parks and recreation departments, and parent/teacher associations to identify the best venue for engaging children and to conduct the needed outreach to ensure that children attend.

Make it Age Appropriate. Children of all ages can be tapped for their talent. For younger children, from kindergarten to 3rd grade, a successful charrette may only include a short walking audit, allowing them to point out things they like and don't like along the way, and then returning to the workshop setting and drawing pictures that reflect their findings. They also can develop short skits or performances that describe the shortcomings they find in their existing environment and in the community they desire. The entire event might be only 30 to 45 minutes long. Students in the 4th grade and higher are better able to draw, photograph, interpret and explain their concerns. They can even use photography to create "photo voice" or poster presentations. Young teens can plot using trace paper and aerial maps. They often know what is missing from their neighborhoods, or where unleashed dogs, broken sidewalks and generally unsafe areas can be found.

Incorporate it Into the Larger Effort. Find ways to incorporate child-elder work into the larger charrette or community effort. If the primary children's charrette takes place at school, make advance arrangements with teachers or parents to have the children present their designs or posters during the community charrette. Present their findings first, as this often warms up the audience and allows them to see how quickly and easily children "cut to the chase," identifying what works and does not work. Also, consider whether it is appropriate and desirable to invite representatives of the news media to cover the children's charrette. If so, work very closely with the school or parents to ensure appropriate permissions are obtained and privacy is respected.



Above, children vote during a charrette in Sacramento, CA. Below, an "inter-generational" walking audit in Morrow, GA.



Work Effectively with Others

Dealing with challenges

TOOL

We work best with others when we feel as if we belong and that our contributions are valuable. Disruptive behaviors fall into two main categories: progress-blocking and group-thwarting. Progress-blocking actions interrupt processes and discourage next steps. Group-thwarting actions undermine the confidence and ability of the group to act cohesively. Successful groups watch for indicators of disruptive behaviors.

While the motives for disruptive behaviors are complex, unclear objectives are the biggest barrier to effective team performance. If disruptive behaviors are interrupting progress or undermining the confidence of the group, it is time to discuss this as a group. All discussions and deeds should be examined for how they lead to the group's stated goals. When a disagreeable comment is made, the group should ask, "What is the desired outcome of that statement?" or "How does this conversation lead us to our goal?"



Staff and residents are partners in community building

- Confrontational instead of cooperative approaches
- Attacking a person rather than a problem
- Engaging in gossip, clique-forming or other power-seeking activities
- Excessive talking, loud voices or otherwise dominating a conversation
- Speeches rather than discussions
- Allowing ultimatums to be made
- Constantly joking, clowning or making sexually-charged remarks
- Silence or failing to engage others

Behaviors that Block Progress

from task to task or set next steps

- Advocating ideas without actions
- Failing to complete assignments on time
- Not communicating successes or failures
- Not tying actions to goals or next steps
- Being unkind, unsupportive or mean-spirited

- Attention- or sympathyseeking behaviors
- Failure to disclose interests or conflicts
- Dismissive or denial-seeking behaviors
- Arguing
- Presenting only one side of a topic
- Departing from the topic regularly
- Introducing unnecessary, anecdotal or tangential information
- Revisiting tasks that the group agrees are complete
- Showing an inability to transition

Share Successes

TOOL

To help effectively convey existing conditions, try "digital storytelling." Create a presentation that uses images, video or graphics to show in a compelling way why changes are needed in a particular area.

Although videos and graphically rich presentations are great tools, they can be difficult for people not trained to do them. A simpler idea is to create a Power Point or other type of user-friendly presentation with digital images you capture yourself. Following are some tips, illustrated with slides from a presentation created by a resident in Winter Garden, FL who wanted to share concerns about nearby roadways with city staff.

- Determine the purpose of the presentation. Is it to show city staff that there is a safety issue? Is it to convince homeowners to support a roadway project? Is it to engage local business as stakeholders? Consider what messages and images will resonate with the intended audience.
- Carry your camera everywhere for a while. You need to get a variety of images and you never know when the perfect picture to document a particular concern will emerge.
- Avoid staging pictures. Be authentic. But by the same token, don't be afraid to use your friends and family in pictures. You spend more time with them than anyone else and so you're likely to be able to get pictures of conditions affecting them. Also, they are your reason for doing this work, so it's appropriate to let that concern for them come through in your presentation. And if it's important to document something but it would be dangerous to do so without staging it, then by all means stage it, but disclose that fact in the presentation.
- Use Google Earth (download it for free) to get an aerial view of the "study area."
- Use PowerPoint or a similar presentation program to put the images in order and put labels on them. Although it's ideal to be able to deliver your presentation in person, expect that it may also be viewed on its own, so it has to be self-explanatory. Consider using free or low-cost online tools such as social media or slide-sharing services to disseminate your presentation to multiple audiences.
- Be transparent and share your agenda. Let people know why you're so interested in the project. Whether for the health and safety of your family, for business or economic reasons or to simply make your community a more enjoyable place, include that in the presentation.
- Build the presentation the way you would tell a story.



Capturing existing conditions through photography helps to explain safety concerns and represent the community.



- 1. First, tell the story of the community or the neighborhood in the way you understand it. If you're not an engineer or planner, you're not expected to communicate like one. Explain things in a comfortable way.
- 2. Start by describing the context and explaining what the neighborhood is like, who lives there, and what the various land uses are. This gives the audience a sense of the community character.
- 3. Explain the problem. You don't need to be an expert in traffic operations to be able to point out that cars are moving too quickly for you to feel comfortable letting your children walk to the playground, or riding your bike to the store.
- Use images that document the things that make you feel unsafe or disconnected. Use statistics as appropriate.

The Problem

Intersection Width and Turning Radii



Use presentation software to put the images in order and apply labels and explanations. Explain the community character and context. Document the problems in your own terms. Use statistics if needed.

The Corridor Great Land Uses



The Problem

Speed Limit, Speed and Conflicts



Plan for Pedestrians

Walkable communities outperform car-oriented communities economically. Nearly everyone, for at least some portion of every day, is a pedestrian. This is why pedestrian planning matters. Pedestrian master planning establishes the policies, programs, design criteria, and projects that will further enhance pedestrian safety, comfort, and access in a community. Through the pedestrian master planning efforts, a community will have environmentally, economically, and socially sustainable transportation systems.

A pedestrian master plan helps communities to:

- Review existing plans, policies, guidelines and codes to determine whether inherent conflicts exist within these documents that might impact the continuity of pedestrian infrastructure across the cities' borders.
- Build a toolbox and best practices that inform pedestrian planning. Tools can include performance methods and monitoring that functions within the area.
- Propose and refine treatments to ensure the integrity of the pedestrian network and to provide clear messaging to users about pedestrian rights and responsibilities.
- Perform field research to identify conflicts, especially noting conditions such as sidewalk gaps and the distribution of existing pedestrian facilities.
- Analyze needs and demand based on information gathered, allowing a broader understanding of patterns, behaviors and origins and destinations.
- Perform a security analysis because people will not walk if they feel that they must navigate through an area with no activity or "eyes on the street."
- Determine where they need to add shade to streets and sidewalks, because if you want people to walk in all temperatures, it's necessary to provide environments that are comfortable for walking.
- Develop criteria for ranking, prioritizing and implementing projects for maximum impact and to better support current initiatives.
- Develop funding strategies that might reduce the burden of improvements.

Resources

The Pedestrian and Bicycle Information Center (PBIC) is a national clearinghouse for information about health and safety, engineering, advocacy, education, enforcement, access, and mobility for pedestrians (including transit users) and bicyclists. Model pedestrian plans are available at



Pedestrian Master Planning focuses on pedestrian safety, comfort and access in a community.

http://www.walkinginfo.org/develop/sample-plans.cfm.

Bicycle/Pedestrian Funding Opportunities																
Project type	NHS	STP	HSIP	SRTS	TEA	CMAQ	RTP	FTA	TE	BRI	402	PLA	TCSP	JOBS	FLH	BYW
Bicycle and pedestrian plan		•				•						•	•			
Bicycle lanes on roadway	•	•	•	•	•	•		•	•	•					•	•
Paved shoulders	•	•	•	•	•	•				•					•	•
Signed bike route	•	•		•	•	•									•	•
Shared use path/trail	•	•		•	•	•	•								•	•
Single track hike/bike trail							•									
Spot improvement program		•	•	•	•	•										
Maps		•		•		•					•					
Bike racks on buses		•			•	•		•	•							
Bicycle parking facilities		•		•	•	•		•	•							•
Trail/highway intersection	•	•	•	•	•	•	•								•	•
Bicycle storage/service center		•		•	•	•		•	•				•	•		
Sidewalks, new or retrofit	•	•	•	•	•	•		•	•	•					•	•
Crosswalks, new or retrofit	•	•	•	•	•	•		•	•						•	•
Signal improvements	•	•	•	•	•	•										
Curb cuts and ramps	•	•	•	•	•	•										
Traffic calming		•	•	•									•			
Coordinator position		•		•		•							•			
Safety/education position		•		•		•					•					
Police patrol		•		•							•					
Helmet promotion		•		•	•						•					
Safety brochure/book		•		•	•	•	•				•					
Training		•		•	•	•	•				•					

Source: <u>http://www.fhwa.dot.gov/environment/bikeped/bp-guid.htm#bp4.</u>

*See the key on the following page for funding sources.

Bicycle/Pedestrian Funding Opportunities Key						
NHS	National Highway System	http://www.fhwa.dot.gov/planning/nhs/				
STP	Surface Transportation Program	http://www.fhwa.dot.gov/safetealu/factsheets/stp.htm				
HSIP	Highway Safety Improvement Program	http://safety.fhwa.dot.gov/hsip/				
SRTS	Safe Routes to School Program	http://safety.fhwa.dot.gov/saferoutes/				
TEA	Transportation Enhancement Activities	http://www.fhwa.dot.gov/environment/te/index.htm				
CMAQ	Congestion Mitigation/Air Quality Program	http://www.fhwa.dot.gov/environment/air_quality/cmaq/index.cfm				
FLH	Federal Lands Highway Program	http://www.flh.fhwa.dot.gov/				
BYW	Scenic Byways	http://www.fhwa.dot.gov/hep/byways/index.htm				
BRI	Highway Bridge Program	http://www.fhwa.dot.gov/bridge/hbrrp.htm				
SCTSP	State and Community Traffic Safety Program	http://safety.fhwa.dot.gov/policy/section402/				
PLA	State/Metropolitan Planning Funds	http://www.fta.dot.gov/grants/13093_3563.html				
TCSP	Transportation, Community and System Preservation Pilot Program	http://www.fhwa.dot.gov/tcsp/index.html				
JOBS	Access to Jobs/Reverse Commute Program	http://fta.dot.gov/grants/13093_3550.html				
RTP	Recreational Trails Program	http://www.fhwa.dot.gov/environment/rectrails/index.htm				
FTA	Federal Transit Capital, Urban & Rural Funds	http://www.fta.dot.gov/grants_263.html				
TE	Transit Enhancements	http://www.fhwa.dot.gov/environment/te/te_provision.htm				
Source: http://www.fhwa.dot.gov/environment/bikeped/bp-guid.htm#bp4.						

Funding Sources and Potential Partners Checklist							
Date Contacted	Agency	Website					
	Health Department	http://www.apha.org/about/Public+Health+Links/LinksStateandLocalHealthDepartments.htm					
		http://www.naccho.org/toolbox/					
	Main Street Program	http://www.preservationnation.org/about-us/partners/					
	Chamber of Commerce	http://www.uschamber.com/chambers/directory/default					
	Community Foundations	http://www.cof.org/whoweserve/community/resources/index. cfm?navltemNumber=15626#locator					
	Local and State Elected Officials	http://www.capwiz.com/apha/dbq/officials/					
	Transportation Enhancement Funding by State	http://www.enhancements.org/Links.asp#statedot					
	State Bike and Pedestrian Coordinator	http://www.walkinginfo.org/assistance/contacts.cfm					
	State Safe Routes to School Coordinator	http://www.saferoutesinfo.org/program-tools/find-state-contacts					
	American Public Health Association	http://www.apha.org/advocacy/priorities/issues/transportation					
	Federal Highway Administration Bicycle and Pedestrian Program	http://www.fhwa.dot.gov/environment/bikeped/					
	Federal Highway Administration State Manual	http://www.fhwa.dot.gov/planning/statewide/manual/manual.pdf					
	Department of Housing and Urban Development CDBG	http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/ communitydevelopment/programs					
	Partnership for Sustainable Communities (DOT, HUD, EPA)	http://www.sustainablecommunities.gov/					
	Centers for Disease Control and Prevention	http://www.cdc.gov/transportation/docs/FINAL%20CDC%20Transportation%20 Recommendations-4-28-2010.pdf					
	AARP Livable Communities	http://www.aarp.org/home-garden/livable-communities/					
	Active Living By Design	http://www.activelivingbydesign.org/					
	Alliance for Biking and Walking Resources	http://www.peoplepoweredmovement.org/site/index.php/members/members3/C258					
	America Bikes	http://americabikes.org					
	America Walks Resources	http://americawalks.org/resources/links					
	Association of Pedestrian and Bicycling Professionals	http://www.apbp.org/					
	Complete Streets Coalition	http://completestreets.org					
	League of American Bicyclists	http://www.bikeleague.org/					
	National Center for Bicycling and Walking	http://www.bikewalk.org/					
	Partnership for a Walkable America	http://www.walkableamerica.org/					
	Safe Communities	http://safecommunitiesamerica.org/					
	Smart Growth America	http://www.smartgrowthamerica.org/about/our-coalition/					
	Transportation for America	http://t4america.org					

Resources for Promoting and Funding Public Art								
Date Contacted	Agency	Website						
	See the guide available from Project for Public Spaces for an important tutorial on how to fund public art.	http://www.pps.org/reference/artfunding/						
	National Endowment for the Arts	http://arts.gov/grants						
	Colorado Creative Industries	https://coloradocreativeindustries.org/						
	Colorado Springs Public Art Commission	https://coloradosprings.gov/parks-recreation-and-cultural-services/page/public-art- commission						
	Cultural Office of the Pikes Peak Region	https://www.culturaloffice.org/						



STREETS/PARKING

CROSSINGS

DROP-OFF/PICK-UP

TREES



Streets should support walking, bicycling and vehicle movement. Lanes should be no more than 10 feet wide and, if possible, should be separated from on-street parking by a two-foot valley gutter. On-street parking gives motorists a place to wait when picking up children and uses as little as a third of the space of off-street parking. Restricting parking times along the curbs next to the school allows these areas to be used for student drop-off and pick-up. Signs should inform motorists to stay with their cars at all times. Head-out (or reverse) angled parking is the safest and most efficient on-street parking. Head-in angled parking and paralle parking also can be good options On-site parking may not be avoid able, but can be minimized.



Around schools, drivers should feel that they are entering a pedestrian realm and that people may be using crossings any time of day. Where crossings are located, streets should be designed so that traffic is slow between 15 and 20 mph — and sight lines are good. At higher speeds motorists are less likely to yield to pedestrians and the risk increase Crossings are best with good lighting, when students cross one lane at a time, and when students and drivers can clearly recognize and respond to each other. Median islands, curb extensions (or "bulb outs") and raised table crossings help create these conditions.

With high rates of students arriving and leaving school in cars, there are many "conflict points" betweer motorists, walkers and bicyclists. If volumes of traffic are high, on-school drop-off and pick-up patterns can include compact, stacking areas that are monitored at all times by adults to ensure that children are only exiting vehicles at the front of the queue when all cars are stopped. It is helpful to have a "valet" program through which adult volunteers or older students - under the guidance of staff - open and close car doors and help students find their parents. On-street parking and nearby parkng options, such as a church parking lot, can help. Signs ask parents to turn off their engines, which helps reduce vehicle emissions and protect



Schools should be integrated into neighborhood designs to provide high levels of "watchfulness" over children. Homes, apartments and townhouses should be near the streets and their "A" sides - their fronts, where abundant windows allow occupants to look outside should face the streets where students will be walking and bicy cling. Each school building should have windows. Low fences and landscaping features can define play areas and access points. Bicycle parking should be located where it i highly visible and sheltered from the elements.

apart.

children's lungs.

SEPARATION



Street trees not only provide shade and a nice environment, but also create comfort and separation for students walking and bicycling. When placed within four to six feet of the street, trees create a vertical wall that helps lower vehicle speeds and absorb vehicle emissions. On streets with a narrow space between the sidewalk and curb (also known as the "furniture zone") trees can be planted in individual tree wells etween parking stalls, which urther tightens the visual appearance of the street and reduces travel speeds. Depending on the species, they should be spaced 15 to 25 feet



At the school, it is best to separate the different modes of travel (walking, bicycling, bus and parent driving). Sidewalks and school entries should be designed to keep walking and cycling students from crossing the pathway of motorists. Parking lots should be designed so students don't need to walk through them to enter or exit the school When these conflicts cannot be avoided fully, raised table crossings are encouraged. Additional desig elements such as colorized or raised crossings improve detection between motorists and students and they give motorists a clear message that they are to slow down an yield to students.



Neighborhoods are most complete when public spaces such as parks are co-located with schools. In this way a community's important assets are available in one place. Parking is shared, shade is available, neighbors keep watch over the park and the school, students have quality places to play or wait for their parents, and social exchange amongst all age groups is fostered. Co-located facilities help hold a community together, roviding the highest level of conservation and sustainability.



intersections near schools should be designed to keep motorists' speeds under control - typically no highe than 15 to 20 mph - no matter what time of day. Turning speeds are espe cially important and can be control led with mini-circles, roundabouts and raised intersections. Curb exten sions (also called "bulb outs") and inset parking help motorists to se pedestrians and pedestrians to see motorists. They also reduce crossing distance time and exposure, and they slow motorists on all turns.

others to consider. For example, educational programming plays a major role in the activities that need to be accommodated.

an older school may be an option, which requires a cost-benefit analysis. Additionally, local conditions and policies need to be

accommodated. School attendance policies affect the distance students must travel and whether they arrive by car, bus,

bicycle, or foot. Rural environments, open attendance policies, charter schools and magnet schools can pose challenges to

walkability, but motor trips can still be combined with walking trips through strategies such as "Park and Walk" programs.

Sidewalks, trails, walkways and ramps should be on both sides of the street around the entire perimeter of the school. Where sidewalk gaps exist, they should be fixed on a prior ity basis, working out block-by-block from the school. Sidewalks around the school should be at least eight feet wide and should be separated from the curb by a "furniture zone" that can accommodate plante strips, tree wells, hydrants, benches, etc. Where appropriate, on-stree parking or bike lanes provide ar additional buffer to the sidewalk.



Although this document highlights many of the key components of properly placing and designing school sites, there are The following can be of help:

More space for outdoor physical activity may be needed. The square footage of the building may be less or greater. Renovating National Center for Safe Routes to School, www.saferoutesinfo.org Council of Educational Facility Planners International, www.cefpi.org American Architectural Foundation, www.archfoundation.org National Trust for Historic Preservation, www.preservationnation.org





Edges are essential for a comfortable walk. Edges define spaces and provide visual cues to guide appropriate behaviors. Open areas such as this create high levels of discomfort for both walkers and drivers. Without an edge, walkers feel they have entered the motorist's realm and motorists feel that pedestrians do not belong, so they do not respect them. **Edgeless streets look sick** and make people feel sad.

SIDEWALKS



Sidewalks must be a comfortable width (typically 6-10 feet for suburban commercial areas), be separated from the curb with a planter strip of 6-10 feet, be continuous and not open to numerous driveways. In general, the higher the roadway speed the wider the planter strip. This space lacks a sidewalk completely, but even the portion with a walk does not "invite" walking.

PARKING

CHARLES IN

Parking set to the front of a building devalues walking in many ways. It creates building-to-building swaths of asphalt as wide as 400 feet. Such inhospitable environments (too hot in the summer, too cold in the winter and lonely all the time) do not honor walking, bicycling, transit, or even auto arrivals. Off-street parking takes three times as much land as on-street parking.



Walkability requires easy and complete access to buildings. When buildings are set back, arrival by foot is plagued with problems. Individual properties often carve up the front of a block into independent parking lots and this fractionalizing of land creates ugly and unpleasant spaces to traverse. It devalues the overall experience and also the overall land value. **Property owners rarely take** care of these spaces, investing instead in large signs advertising to drivers.

Suburban style strip malls and building types are often devoid of character and personality. They are large, faceless, lifeless, uninteresting, uninspiring spaces. Walkers tend to shun such "voids" and motorists tend to speed up when they come across them. These spaces can be anywhere - they have a universal ugliness. Health studies reveal that people in ugly places have elevated blood pressure. Road rage also increases.

EDGES





Quality edges provide a protective enclosure satisfying the human eye, heart and foot. Edges address our need for comfort, safety and security. Creating a sense of enclosure usually requires building to the interior edge of walkways, planting ground cover and trees, and including on-street parking to buffer the pedestrian from moving traffic. Edges are essential to an enjoyable walking experience.

SIDEWALKS

Sidewalks of sufficient width allow walking to be the most natural, fun, rewarding and healthy way to travel. They allow people to enjoy walking, a relaxed conversation with another, to linger or sit outdoors at a café, and they encourage people to stay and socialize. Although sidewalks can be made of a number of materials from concrete to pavers, the most pleasant walkways have a simple elegance—they are well constructed and maintained.

PARKING



The combination of on-street parking and urban building carefully screen or fully hide off-street parking. Off-street parking is placed in interior courts or in well landscaped gardens to the side or rear of the building. Thriving downtowns or pleasant villages rarely require off-street parking minimums. In many cases today, municipalities prescribe maximum number of spaces that are allowed, which makes better use of limited space.

BUILDINGS



predictability, authority and dignity to a street. In order to improve mobility and accessibility, buildings need to have convenient breaks and pauses, certainly every 400 feet and sometimes less.

Attractive buildings front the main street adding to the living experience

> Trees line streets to create a sense of enclosure

> > **CHARACTER**

PEOPLE

FOCUSED

great artistry and cultural achievements, and create a place that is always fun to come back to, enjoy and protect. A great street is also great theatre.

Poster Illustrated by TDC Design Studio

Safe Routes to School Guide

Student Drop-off and Pick-up



Created February 2007



This guide was developed by the Pedestrian and Bicycle Information Center (PBIC) with support from the National Highway Traffic Safety Administration (NHTSA), Federal Highway Administration (FHWA), Centers for Disease Control and Prevention (CDC) and Institute of Transportation Engineers (ITE). This guide is maintained by the National Center for Safe Routes to School at www.saferoutesinfo.org.

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Overview

The purpose of a Safe Routes to School (SRTS) program is to encourage and enable more children to walk and bicycle to school safely. Communities tailor a combination of engineering, enforcement, education and encouragement strategies to address the specific needs of their schools. This includes the walk or bicycle journey to and from school as well as the drop-off and pick-up process of children at school who are transport-ed by motor vehicle. The drop-off and pick-up process must be safe and efficient for students and parents arriving by bus or private motor vehicle, as well as those who arrive on foot and bicycle.

Some parents are reluctant to allow their children to walk or bicycle to school due to the traffic congestion and perceived traffic danger during student arrival and dismissal. This often results in more parents driving their children to school which adds to the extra congestion and safety problems at the school, creating an increasing cycle of more traffic problems and less walking. By improving the drop-off and pick-up process, traffic conditions become safer for all, including pedestrians and bicyclists. Better organized and safer traffic conditions will ease the concerns of parents, and make them more willing to allow their children to walk or bicycle.

This chapter will help readers identify problems associated with the drop off and pick up of students at school, and identify engineering, enforcement, education



Orangewood Elementary School, Phoenix, Arizona.

and encouragement solutions to these problems. The purpose of improving the drop-off and pick-up process is to increase the safety and attractiveness of traveling to and from school on foot or by bicycle. The drop-off and pick-up process, as with all components of a SRTS program, requires coordination with local government officials, law enforcement, school officials, parents and the general public.

Improving the drop-off and pick-up process will:

- Increase safety for everyone in route to and from school, as well as on school grounds.
- Employ engineering, enforcement, education and encouragement strategies.
- Require a site-specific application of strategies; each school will have its own set of limitations and opportunities.



Casselberry, Florida.



Rogers Elementary School, California.

What's Wrong With This Picture?

L here are many ways that a drop-off and pick-up zone can become dangerous for children. The next several images illustrate a variety of situations that are chaotic and potentially unsafe.



This drop-off and pick-up site employs some useful strategies including striping, signs and enforcement, but it is not working. The pictures show the chaos along the curb and in the street. Note the double parking, erratic behavior and dangerous mix of pedestrians and motor vehicles.



Motor vehicles are parked in the school crosswalk.



Motor vehicles are driving in the wrong direction. Children are exiting motor vehicles in the middle of the street.



This small child is running across a busy parking lot unaccompanied.



The driver of this motor vehicle is making a U-turn in the school drop-off and pick-up zone.



Motor vehicles are parked along the NO STOPPING zone when they should not be.



The school utilizes orange cones to mark the drop-off and pick-up lanes and a driver still performs an illegal U-turn.

Student Drop-off and Pick-up Tools

When assessing the drop-off and pick-up process, activity on school grounds (on-site), as well as activity in the area surrounding the school (off-site), must be considered. These images depict an on-site drop-off and pick-up process that is orderly; motor vehicles are approaching single file and releasing students directly to the sidewalk in the designated drop-off zone.



David Parisi



But off-site, on a street near the same school, the process is chaotic. Notice the backed-up street, delaying commercial vehicles, school buses and parents wishing to drop off children. Such situations are often accompanied by unsafe driving behavior as everyone rushes to beat the morning bell or get to work on time. Developing safe routes to schools requires an orderly process for dropping off and picking up children, both on and off the school campus.



Numerous tools can be used to improve the safety and efficiency of the drop-off and pick-up process at schools including:

- Encouraging walking, bicycling and carpooling.
- Curb striping and other pavement markings.
- Signage.
- · Separating motor vehicles from pedestrians and bicyclists.
- Adding a drop-off and pick-up lane.
- Assistants to help students exit and enter motor vehicles.
- Adding an off-site queuing lane.
- Temporary street closures and one-way streets.
- Temporary use of school grounds as a drop-off and pick-up zone.
- Education, including maps and frequent reminders using school announcements and newsletters.
- · Monitoring and enforcement of drop-off and pickup policies.

Encouraging Walking, Bicycling and Carpooling

Naturally, a Safe Routes to School (SRTS) Program encourages students to bicycle and walk to school. But, some students simply live too far from their school to walk or bicycle, and are not provided with bus service. For those parents who must drive their children to school, several strategies can reduce traffic congestion at the school and in the adjacent streets, including park and walk and carpool programs. A park and walk program makes use of an off-site location (such as a nearby church or park) as a parking area for parents who then walk their child to school or join a regularly scheduled walking school bus to complete their journey. The Encouragement chapter of this guide describes park and walk and walking school bus programs in detail.

Families that have no alternative to driving their children to school can also carpool to reduce traffic congestion at the school.

Communities such as Charlottesville, Virginia (www. rideshareinfo.org/schoolPool.asp),Fort Collins,Colorado (www.fcgoc.com/transportation/schoolpool.php), and Santa Cruz, California (www.commutesolutions. org/schoolpool.html), have developed "school pool" programs in which a voluntary group of parents share the responsibility of getting children to and from school safely. This can include walking, bicycling, carpooling or taking the bus, and whether done on a daily basis, occasionally or in case of an emergency, school pools help communities address child safety and reduce traffic congestion.

Many larger metropolitan areas around the nation have free programs that assist people with forming carpools. These programs are now extending their reach to include school related trips. The school pool program, for example, is a service that provides "matchlists" to parents with students attending the same school so that students may carpool, walk or bicycle together. In some cases, participating schools provide student rosters containing names, addresses and phone numbers to the agency, which then provides the computermatching. In other cases, parents sign up individually and are matched with parents at the same school. After parents receive a matchlist of other parents it is up to them to make the arrangements they prefer.



This flier from the Marin County, California, Safe Routes to School program advertises their School Pool program that promotes walking, bicycling and carpooling.

Families that have no alternative to driving their children to school can also carpool.



Carpoolers have preferred drop-off and pick-up lanes at St. Marks School in San Rafael, California.

The Mid-America Regional Council runs the RIDESHARE program for the greater Kansas City Region. School Pool is a service of RIDESHARE a free commuter matching services. Visit www.marc.org/rideshare/schoolpool.htm to learn more about how this program works. RIDES for the San Francisco Bay Area operate a similar program. Bay Area Commuters, Inc. is a nonprofit organization promoting commute alternatives to driving alone to school or work.

Walking school buses and bicycle trains can be loosely structured or highly organized. For example, walking buses or bicycle trains can be as simple as neighborhood families deciding to walk or bicycle together. More formal, organized walking school buses and bicycle have a coordinator who recruits volunteers and participants, creates a schedule and designs a walking route. While requiring more effort, more structured walking school buses and bicycle trains offer the opportunity to involve more children.

Tool: Encouraging Walking, Bicycling and Carpooling

What is it and how does it work?

Urge students and parents to walk and bicycle to school, and when not possible, to ride the bus or carpool.

Benefits strategy provides

- Decrease traffic at school.
- Reduce vehicle emissions.
- Increase physical activity levels.

Key factors to consider

• Develop encouragement activities to reflect specific situation at each school and within each community.

Putting It Into Practice: "25 or Less" Campaign Morton Way Public School, Brampton, Ontario, Canada

Morton Way Public School in Brampton, Ontario, Canada, has 877 students in junior kindergarten through grade five. Approximately 50 students travel to school by school bus, and the rest of the students live within walking distance of the school. During the past four years Morton Way has sustained a successful walk to school program with between 83 and 92 percent of students walking or bicycling to school on specific days.

Despite the success of the program, the Morton Way community still felt there were too many private vehicles dropping off students. They recently implemented a new initiative to reduce the amount of motor vehicles at the school through a "25 [Cars] or Less" campaign. A "thermometer" is displayed to alert drivers how many vehicles dropped off students the day before and school PA announcements update the students of progress. There are also signs displayed around the school promoting the 25 or Less campaign.

See the Encouragement chapter for a description of other Morton Way Safe Routes to School activities.

Curb Striping and Other Pavement Markings

Curb striping or painting is used in drop-off and pick-up zones to clarify parking and other curb use rules. The color painted on curbs means:

White (or no color)

Parking allowed, unless restricted or limited by signs.

Blue

Parking for the disabled only. Drivers must have a disabled person parking placard (typically hanging on the rear view mirror) or disabled person or disabled veteran license plate.

Green

Parking allowed for a short time. The time is usually shown on a sign next to the green zone, or it may be painted on the curb. Green curb can also be used for student loading zones if accompanied by the appropriate signs.

Yellow

Stop only long enough to load or unload passengers. Drivers are usually required to stay with their vehicle.

Red

No parking. Red curb may also be used in NO STOPPING or NO STANDING zones in conjunction with the appropriate signs. A bus may stop at a red zone marked for buses. Red is also used to designate fire lanes at schools.

In some cases it may be helpful to stripe out the loading area, both for the driver and for the waiting students. Some schools stripe the path the drivers are supposed to use for drop off and pick up, and some schools use pavement arrows and pavement stencils to designate circulation patterns and where loading is to occur.



Pavement stencil at Monroe Elementary School in Utah.



Mike Cynecki

The blue line used by the Deer Valley School District in the Phoenix, Arizona, metropolitan area designates parent dropoff circulation for school parking lots. This sign corresponds to the blue pavement markings used by the Deer Valley School District in Phoenix, Arizona.



The combined use of signs and striping on a residential street adjacent to school property clarifies the intended curb use. The white curb marking indicates an area in which drop-off and pick-up of passengers is permissible. Santee, California.



Mike Cynecki

This is part of an on-site drop-off and pick-up zone with highly visible red striping. The loading and unloading occurs in a specially marked area beyond the red curb. Orangewood Elementary School, Phoenix, Arizona.

Tool: Curb Striping

What is it and how does it work?

Delineate zones and intended use with paint.

Benefits strategy provides

- Low cost.
- Provides continuous explanation of zone.

Key factors to consider

- Maintain paint.
- Use standard colors.
- Educate parents and students on proper use.
- Use in conjunction with signing to clarify purpose.

Signs

Signs help define areas in drop-off and pick-up zones and explain their proper use. Signs should be standard, highly visible, properly installed and well-maintained.

Some signs can be confusing if improperly placed or poorly worded. Signs with fewer words are easier to read and understand. Standard signs should be used on school property and in the surrounding area for regulating and guiding traffic. A local traffic engineer can recommend appropriate signs and their placement. See the Engineering chapter for more information on signing.

Separating Motor Vehicles From Pedestrians and Bicyclists

Separating or eliminating conflicts between students arriving on foot or bicycle from those arriving by buses and motor vehicles is highly recommended. Adequate physical space should be provided for each mode by which students arrive at school. Also, the route provided for each mode should be separate from other modes. Provision of sidewalks and bikeways that are separate from lanes dedicated to buses and lanes dedicated to motor vehicles will reduce a student's exposure to traffic. Students walking or riding to school should not have to cross busy driveways or roadways to access the campus. If they do, an adult school crossing guard or older student should be placed at the crossing to assist students safely across.



David Parisi

Nonstandard signs are not always understood by drivers. This sign is often hit by motor vehicles and leads some drivers to believe the entire street, and not just the crosswalk, is offlimits to parking.



Mike Cynecki

When worded properly and when parents are educated properly, some nonstandard signs can be quite helpful in regulating drop-off zones. Orangewood Elementary School (left) and Roadrunner Elementary School (right), Phoenix, Arizona.

Tool: Signing

What is it and how does it work? Clearly indicates intended use of zone.

Benefits strategy provides

- Low cost.
- Provides continuous explanation of zone.

Key factors to consider

- Use standard signs.
- Install signs properly.
- Maintain signs.
It may be appropriate to provide a separate travel lane for buses, a separate lane for private motor vehicles and specific routes for pedestrians and bicyclists. Separate bus zones can be established either on the school site, or on the adjacent street, wherever sufficient room exists. Preferably, the bus zone is not immediately adjacent to the private motor vehicle area to ensure that there is no spillover from the motor vehicles into the bus area.

A separation of arrival and departure times may also be useful. Staggered bell times for groups of students help to disperse the traffic peak at schools during the relatively short drop-off and pick-up periods. Staggered release or bell times for walkers and bicyclists, and bus riders and carpoolers can help reduce pedestrian or bicyclist exposure to, and minimize conflicts with, motor vehicles. Conflicts often occur when private motor vehicles and buses arrive at the same time and in the same location. For example, buses may use a drop-off and pick-up lane at a certain time, followed by private motor vehicle use at a later time. Staggered bell times are most applicable for schools with a large student population or when two or more schools are in close proximity to one another.

To further reduce conflicts, school facilities can be arranged to eliminate or reduce the number of children walking through parking lots. Children should walk around parking lots on dedicated walkways or sidewalks. If this is not possible, clearly marked walkways through parking lots with adult or older student monitors should

Tool: Separating Vehicles From Pedestrians and Bicyclists

What is it and how does it work?

Provide different school access points in space or time for various student travel modes.

Benefits strategy provides

• Provide efficient and safe flow of all modes with minimal mixing.

Key factors to consider

- Can be costly if construction is needed.
- New schools and rebuilt or modernized schools should be carefully reviewed to ensure that separation is present.

be used, and speed calming treatments, such as humps or bumps, should be employed in the parking lots.

School bus loading areas should be separated from parent drop-off and pick-up areas if at all possible. Signs, pavement markings, gates or orange cones may be used to provide this separation, but some education and enforcement will also be needed.



Phoenix, Arizona.

Mike Cynecki



VIIKE CYNECKI

Traffic cones can be used to keep parents from entering the bus loading area at Monroe Elementary School in Utah.



Mill Valley, California.

David Parisi

Drop-off and Pick-up Lane

A drop-off and pick-up lane is an area on a street adjacent to school grounds or directly on the school grounds that is dedicated to the loading and unloading of students by private motor vehicles.

This school created a drop-off and pick-up lane on the street adjacent to school grounds. The picture to the left shows a corral where children wait to be picked up. Motor vehicles with identification tags that correspond to an individual student line up in the yellow-lined area. When the motor vehicle progresses to the white-striped loading area, the appropriate child exits or enters the vehicle. Signs, such as the one in the picture to the right, can remind drivers to follow the established process.



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Marin Horizon School, Mill Valey, California.

An on-site drop-off and pick-up lane can employ the same general technique as in the on-street drop-off and pick-up lane. The system illustrated in the pictures to the right uses two lanes rather than one, and the lanes are actually on school grounds. Several motor vehicles in one lane progress to the unloading zone, release the children simultaneously and move out when all the children have cleared the street. The next group of motor vehicles moves into the loading zone from the other line of queued vehicles and repeats the process. Curb striping delineates the areas, signs further explain their proper use, orange cones mark the lanes and school personnel orchestrate the entire process.

Tool: On-street and On-site Drop-off and Pick-up Lane

What is it and how does it work?

- A lane designated for drop off and pick up of students from private motor vehicles only.
- May be on school grounds or on street adjacent to school.

Benefits strategy provides

• Speeds up and provides order to the drop-off and pick-up process.

Key factors to consider

- Clearly delineate zone and define process.
- The student loading area should be at the far end of the lane to maximize vehicle storage. In some cases two storage lanes may be used.
- Unload or load three or four motor vehicles at a time.
- Do not create a process that negatively impacts students arriving on foot or bicycle, and do not encourage more parents to drive students to school.



Monta Vista School, Santa Barbara, California.

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Assistants to Help Students In and Out of Vehicles

Providing curb-side assistants in drop-off and pick-up zones to help students exit and enter motor vehicles can provide order to the process and decrease its time.

Parents, school personnel, safety patrol or older students can serve as valets and open curb-side doors for students to enter and exit motor vehicles and remove bags or other items. This speeds up the drop-off and pick-up process by eliminating the need for the parents to get out of the vehicle and ensures students are directly accessing designated locations. These assistants should wear safety vests or belts, and the loading area should be designated by signs or paint and be located at the far end of the lane. It is best to have enough assistants to help load three or four vehicles at a time to speed up the process in a safe manner.



Richman Elementary School, Fullerton School District

Tool: Assistants to Help Students In and Out of Vehicles

What is it and how does it work?

Person opens and closes curb-side motor vehicle door for students entering and exiting vehicles. Parents stay in vehicle and leave immediately after the child exits.

Benefits strategy provides

- Speeds up drop-off and pick-up process.
- Channels students directly from motor vehicle to pedestrian zone or from pedestrian zone to motor vehicle.

Key factors to consider

- Parents, school personnel and safety patrol can all participate.
- Need to educate parents and children on the process.
- Assistants should wear safety belts or bright vests.

Off-site Queuing Lane

Another strategy to improve the safety and efficiency of the drop-off and pick-up process is the use of off-site queuing lanes.

The street in this photograph is a major collector. During arrival and departure of students, the right lane is marked no parking and the motor vehicles line up for drop off and pick up. As students are loaded or unloaded from the motor vehicles at the drop-off and pick-up zone the vehicles in the queue advance. Off-site queuing lanes, in conjunction with drop-off and pickup lanes and assistants to help students enter and exit motor vehicles, can speed up and improve the safety of the loading and unloading process.

In some instances, striping a center turn lane on a collector street can provide a queuing area for left-turning drivers waiting to enter the school drop-off and pick-up area, without blocking other traffic using the street.



Tool: Off-site Queuing Lane

What is it and how does it work?

Orderly line of vehicles on street adjacent to school waiting to pull into the drop-off and pick-up zone.

Benefits strategy provides

- Reduces conflict with non-school traffic.
- Speeds up and provides order to the drop-off and pick-up process.

Key factors to consider

- Clearly delineate queue.
- Do not block non-school traffic with queue.
- Does the public right-of-way provide sufficient space for the vehicles, or does the needed width infringe on private property?
- Do not extend the motor vehicle queue through a student crosswalk.

Temporary Street Closures and One-way Streets

Temporary street closures during student arrival and departure times can improve the efficiency and safety of the drop off and pick up of students at school. Temporary street closures eliminate motor vehicles in areas congested with pedestrians, bicyclists and perhaps buses. Another similar technique is to designate a street as one-way during drop-off and pick-up times. Signs are essential for this method.

Both temporary street closures and temporary use of oneway streets can work well in densely developed neighborhood schools. Any proposed street closures must be approved by the appropriate local transportation agency and must be coordinated closely with neighbors. It is also important to ensure that employing either of these techniques does not create traffic problems on other streets. Remember that all of these techniques should improve the safety of the overall process, and not simply relocate the chaos.

Tool: Temporary Street Closures and One-way Streets

What is it and how does it work?

Officially close street to traffic, or create a one-way street only during drop-off and pick-up times.

Benefits strategy provides

• Decreases traffic and chaos at drop-off and pick-up times with minimal cost.

Key factors to consider

- Coordination with local government and adjacent property owners is necessary.
- School officials may have to place and remove barricades and maintain them during the street closure.
- Do not relocate traffic problems to adjacent neighborhood streets by employing this strategy.



David Parisi

These images illustrate the temporary closures of neighborhood streets adjacent to schools in Seven Trees, California, (right) and Monroe Middle School, California (left). The closures are marked by the use of movable barricades.

Temporary Use of School Grounds as a Drop-off and Pick-up Zone

A section of the school grounds, such as a play area or parking lot, can be used as a dedicated drop-off and pickup zone only when children are arriving at, or leaving, school. Temporary drop-off and pick-up zones can be useful in older, urban schools that were built without student loading areas when most children walked to school rather than being driven to school. Some schools have received permission from their fire department or fire marshal to use a gated fire lane that encircles the school building as a parent pick-up and drop-off zone. This use requires parents to always stay in their vehicle, and to use a circulation pattern so that students load on the building side of the vehicle. At other times this area is closed to motor vehicle traffic.

Tool: Temporary Use of School Grounds as a Drop-off and Pick-up Zone

What is it and how does it work?

Use school play area, parking lot or other area as a drop-off and pick-up zone.

Benefits strategy provides

• Provides a separate space for drop-off and pick-up by motor vehicle.

Key factors to consider

- Useful in schools in densely developed areas with space constraints.
- Education of parents and students is important.
- Need good sign and paint plan; cones may be helpful.
- To use a fire lane as a drop-off or pick-up zone, schools need to obtain approval from the fire department beforehand.

Education

Educating parents and students on proper drop-off and pick-up procedure is essential in developing a safe and efficient system.

Regular reminders of drop-off and pick-up procedure from school officials to students and parents is one way to keep parents informed. Information provided to parents should be clearly stated, provide consistent messages and be delivered regularly throughout the school year. Maps of the drop-off and pick-up area with traffic flow patterns are very helpful. It is often good to begin a new drop-off plan at the start of a new school year or after a break, and after sufficient notice has been given to parents and students about the new plan.

Some schools hold traffic safety days to provide students and parents with useful information. Drivers are reminded of traffic safety principles and school drop-off and pick-up policies and processes. At this time children can be recognized and rewarded for walking or bicycling to school. Drivers who are not following proper process can receive warnings from school personnel, parents or law enforcement officers. Giving small rewards, such as stickers or pencils, to students whose parents follow proper process may be more beneficial in correcting bad habits than punishing poorly behaved parents.

Communities with a large non-English speaking population may benefit from multi-lingual educational literature, parking lot monitors and events.



David Parisi



David Parisi

Monitoring and Enforcement of Drop-off and Pick-up Policies

Enforcement of drop-off and pick-up rules is essential in creating a safe drop-off and pick-up environment. Enforcement as it applies to the entire Safe Routes to School program is discussed in detail in the Enforcement chapter, so it will be mentioned just briefly here.

Enforcement of drop-off and pick-up policies and process can be performed by a variety of people. Schools around the country have had success utilizing law enforcement officers, school personnel or parent volunteers. When new drop-off and pick-up plans are implemented assistance may be requested from law enforcement officers to make sure traffic flows smoothly during the first few days. Implementing a new plan may also require more volunteers or monitors to regulate parent activity in the first few days.



This notice is placed on a vehicle windshield to inform the driver that they have illegally parked in a drop-off and pick-up zone for buses.

Tool: Monitoring and Enforcement of Drop-off and Pick-up

What is it and how does it work?

Inform and remind the school community of drop-off and pick-up policies and process.

Benefits strategy provides

• May be the only additional activity necessary to keep drop-off and pick-up safe and efficient.

Key factors to consider

- Regular reminders and consistent application of rules are necessary.
- Reward students if their parents follow the process.
- Police assistance may be requested when implementing a new plan.

Enforcement of drop-off and pick-up rules is essential in creating a safe drop-off and pick-up environment.

ADDRESSING POTENTIAL CONCERNS

Snow Removal

Snow removal from roadways in Casper is an important consideration. So too is providing safe routes to all the places children need or want to walk, bike or roll. The two priorities aren't mutually exclusive, but providing for both requires some flexibility and creativity. In fact, many communities throughout the country that face heavy snowfall in the wintertime - including parts of Montana, Colorado, New York, Utah and Minnesota - have successfully implemented traffic-calming devices such as those recommended in this report and are experiencing higher levels of active transportation, even in cold months.

Experience shows that typical traffic-calming devices, including those recommended herein, do not prevent snow removal or create unsafe conditions due to residual snow build-up. In fact, all of the jurisdictions consulted for this report advise that roadway safety is their highest concern. They have successfully trained their drivers and adjusted their equipment and operations in order to build and maintain roadways safe for all users, not just cars.

The best practices for snow removal on streets where traffic-calming measures have been installed include:

 Using modified equipment to accommodate traffic-calming measures, such as rubbertipped plows or rollers attached to the plow's underside. Note that this may require an investment in different trucks.

- Assigning staff to set routes, creating familiarity with traffic calming device locations.
- Appropriately marking the location of trafficcalming devices.
- Customizing the geometric design of trafficcalming devices.
- Maintaining close collaboration and cooperation between state and town snow-removal teams so that snow is not simply moved from the street to the recently plowed walkway or trail openings, back to the street and back to the walkway again.



Snow removal in Hamburg, NY, where road diets and traffic-calming devices have been implemented.

The concepts presented above represent techniques employed by other jurisdictions with similar snow conditions, but may need to be adjusted for the specific climate and conditions in Casper. Residents should expect that transit and school walking trips will be given the first priority for snow removal.

Specific advice is offered by Kyle Endelman, Public Works Manager for Sammamish, Washington, an area with snowfall and significant traffic-calming investments in place:

"We plow with a variety of trucks including one-ton, three-yard dump trucks F450s/F550s and five-yard dump trucks. We typically plow to the right side of the road. When we plow around a traffic circle we enter the traffic circle plowing to the right and then we straighten the plow out to plow straight ahead. Then we move the plow back to the right as we exit the circle on the next road. We may have to do this several times depending on how many roads are connected with the traffic circle.

"We do the same when entering a speed calming curb cut-out. We straighten our blade out as we enter the cut-out and then we return the plow to the right-hand side. This prevents snow from accumulating along the crosswalk or ADA ramps. In some traffic circle areas we have found that single plows F450/F350s work better than our larger trucks."

Snow Removal - continued

In areas where recommendations include narrowing travel lanes, adding bike lanes, and removing center turn lanes, snow storage can be managed in various ways:

Preferably, plow snow to the center of the street. The roadway dimensions remain the same whether the road features bike lanes or a center turn lane. Thus, the driver will have ample curb-to-edge-of-snow-bank width. In many conditions, snow from winter storm events will have already been cleared before school arrival or departure. When snow is stored in the center of the roadway there is still adequate driving width. Motorists are permitted to drive over the marked bike lane, which may not be clearly seen under these conditions. If it appears that there will be con-

fusion, the city should post signs stating that motorists may use bike lanes during snow storage periods.

- If necessary, snow can be pushed into the bike lanes until the trucks arrive to take the snow to melting fields. Plowing operations should only push the snow to this spot, or extend into the planting buffer, when one exists, and not be pushed into sidewalk areas.
- To address liability if bike lanes are encroached upon by vehicles when plowed snow is present, the city should adopt an ordinance that states that when winter storms call for snow storage in the center of roads, motorists and bicyclists should be on alert; motorists should reduce speeds to 20 mph in the presence of bicyclists; motorists should yield to bicyclists and pass only when it's safe;

and bicyclists may choose to ride on sidewalks. Extra efforts should be made to keep these sidewalks cleared.

Center Turn Lanes

Continuous center turn lanes serve to speed up vehicles and are most often used where traffic volumes are high, such as 12,000 trips-per-day or more. Near schools, the opposite effect is sought: to slow vehicles down. Thus, the center turn lanes near CY Middle and other schools studied are not appropriate and should be removed. The added space that will be created by repainting for bike lanes is in keeping with the goal to keep speeds low and offer an improved buffer between travel lanes and the sidewalk. The slowing of vehicles when turning will slightly reduce efficiency in favor of a safer overall walking, bicycling and driving environment.



