

Toward Walkable Places: Parkside and Charlotte Harbor



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Acknowledgements

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The following individuals and organizations were involved in providing the technical assistance in Charlotte County and developing this memo:

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Targeted Technical Assistance

The Walkable and Livable Communities Institute has developed a module for a walkability workshop and walking audit that engage communities in making their streets and neighborhoods more walkable, livable, healthy and sustainable.

The walkability workshop module was delivered by the WALC Institute as technical assistance to Charlotte County in response to a successful grant application to Project for Public Spaces, a Livability Solutions partner. The project is funded by the U.S. EPA's Office of Sustainable Communities' Building Blocks for Sustainable Communities Program, via a grant to Project for Public Spaces. The program funds targeted assistance to communities facing common development problems.

The goal of the workshop was to: build capacity for walkable, livable streets by promoting a shared language amongst residents, government staff and elected officials; illustrate through examples and audits how walkability and livability benefit a community and how they can be achieved; and inspire each participant to become involved in the movement toward active living.

The workshop increases support for healthier communities by helping participants recognize how planning and design influence community-building; giving participants an expanded toolkit to draw from to build healthier neighborhoods; and helping them understand how sustainable transportation and land-use patterns work together.

During the workshop, participants conduct a walking audit to identify specific opportunities and challenges that affect active living, social connectivity and access to daily needs.

The agenda for the technical services delivery in Charlotte County follows:

Monday, April 9, 2012

1:00 p.m. Pre-brief, discovery session and stakeholder discussions

3:00 p.m. Site visits

Tuesday, April 10, 2012

10:00 a.m. Walkability presentation to the Board of County Commissioners

1:30 p.m. Walkability workshop and walking audit

6:00 p.m. Walkability presentation to the community

Charlotte County's commitment to livability

This technical assistance was awarded to Charlotte County as a result of a successful grant application to Project for Public Spaces, a Livability Solutions partner. The application included the following description of the county's commitment to livability, a large component of which is walkability:

In July 2010, the Board of County Commissioners adopted a new comprehensive plan - Smart Charlotte 2050- which focuses on economic development, mixed-use, walkable and pedestrian-oriented communities, energy-efficient land use patterns, energy conservation, and multi-modal transportation system. The Plan identified specific neighborhoods for more intense and focused planning efforts - including the Charlotte Harbor and Parkside CRAs. For these focused revitalizing areas, policies adopted in Smart Charlotte 2050 encourage promoting walkable places that integrate service, entertainment, and employment needs with a mix of housing types. The CRAs are considered infill locations where the County wants to concentrate residential and commercial development which will promote more walkable and bikeable communities. The County also has adopted a Green Building Code; hosted the US Department of Energy Road Show; sponsors an annual Energy Expo and Conference; and was certified as a Green Local Government by the Florida Green Building Coalition (FGBC) in 2011 after demonstrating Green practices in its department functions.

The County is seeking technical assistance in two focus areas: Urban Corridors and Intersection design to promote pedestrian and bicycle use while maintaining a healthy commercial corridor and designing community parks as active, safe social places.

The technical assistance is designed to build upon this commitment and help community members address fundamental issues that impact people daily, including roads, access to places, equity in opportunities for all people, the ability to "age in place" and livability.

Through this assistance, residents and stakeholders have an opportunity to become more engaged in decisions made about future growth, ways to preserve and protect quality of life, methods to save money, measures that increase property values and initiatives to improve health and well-being.

Why Walkability?

Walkability is a major component of livability, or the quality of life a place allows, and it is heavily influenced by the land-use and transportation planning choices made. The built environment impacts health, well-being and happiness – either positively or negatively. It is a reflection of the care and thoughtfulness put into creating the places where we live, go to work, attend school, and play.

Study after study shows that walkable, bikeable, and livable communities are also healthier communities, not only in terms of individual health, but also environmental and economic health. Consider that:

- A study published 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 also was correlated with more than a five-percent reduction in air pollutants that are associated with vehicle travel.

- 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.
- A study published by CEOs for Cities in 2009 shows that in 13 of 15 housing markets evaluated, a one-point increase in a neighborhood’s WalkScore (www.walkscore.com) increased homes values as much as \$3,000.

Other benefits noted through observation and reported by numerous government entities, independent researchers and non-profit organizations include:

- Protection of natural and cultural resources (<http://www.epa.gov/dced/>)
- Increased economic development (http://www.activelivingresearch.org/files/Synthesis_Shoup-Ewing_March2010.pdf)
- Reduction in crime and violence (<http://www.cdc.gov/ViolencePrevention/youthviolence/cpted.html>)
- Opportunities for social connectedness and community building (<http://bowl-inalone.com/>)
- Reduce sprawl and infrastructure costs (<http://law.wustl.edu/landuselaw/Articles/axelrad.html>)
- Transportation equity (<http://www.vtpi.org/equity.pdf>)

Images of walkability. Below, Bayshore Live Oak Park in the Charlotte Harbor CRA.



Images of walkability. Below, Winter Garden, FL.



Further, 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:

Walkability and livability are not about sacrifice. When we design our streets for well-being, we get well-being. We can turn our communities into thoroughfares or we can turn our communities into destinations. Our streets are attractive and safe for all users, or they are not. Our streets encourage a variety of transportation options, including walking and bicycling, or they limit choices. Our streets enable social interaction, or they segregate. Our streets improve individual, economic and environmental health, or they diminish these things. These are the choices we have before us. Livability is achieved when we set our course to complete streets and embrace well-being. This report outlines the ways in which our elected leaders, city staff and residents can support the livability movement.

Presently, too many of our streets prioritize vehicle mobility. Because of this, the primary role of streets is to move vehicles quickly and this deters other modes of transportation, especially transit, biking and walking. Over-reliance on one system has led to an imbalance where walking and bicycling have become challenging and unnatural activities. We have limited our choices. The results are lower levels of health, happiness and social connectedness. A focus on building walkable, livable communities recognizes the significance of streets and transportation investments in individual and community life.

Images of walkability. Below, Cordova, AK.



Images of walkability. Below, Miami Valley, OH.



Key Recommendations

Through walkability and livability, Charlotte County can improve health and economic vitality. Based on observations made during the walkability workshop and audit on April 9, 2012, the WALC Institute team has set forth the following key recommendations which are detailed in this report:

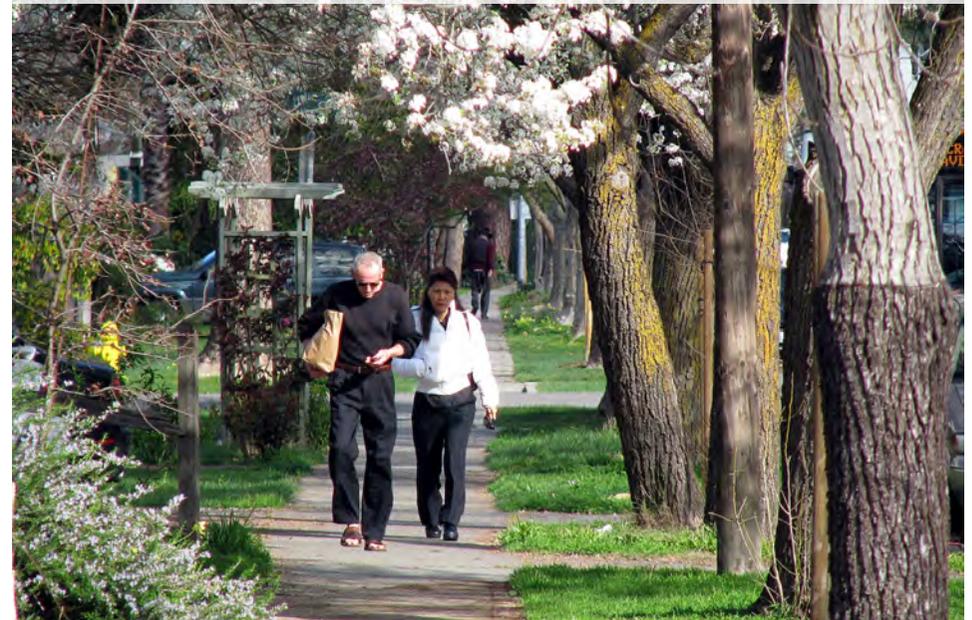
- The Entire Audit Area (page 11): Throughout the study area, sidewalks and connections are missing, vehicle speeds in some locations are too high to be comfortable or safe for people outside of cars, and the development patterns are mostly vehicle-focused, which limits economic development opportunities. Starting on page 11, recommendations are made for improving walkability throughout the audited area. More details and a list of tools are provided in the attached Livability Toolbox.
- Plant and Preserve Trees (page 15): Street trees are of critical importance in Charlotte County. Not only do trees provide much-needed shade, but they also help to calm traffic, create a strong sense of place, help reflect the community's character and values, and provide environmental benefits such as uptake and filtering of stormwater. Greening and shade also are a boon to tourism.

- Calm Traffic and Create a Gateway at Tamiami Trail and Harbor Blvd. (page 16): The area can be more welcoming and reflective of the county's desire to create a medical district here.
- Create a Village at Tamiami Trail, Kings Highway and Parmely Street (page 17): This seems to be "the" big opportunity identified during the walking audit. Starting on page 17, recommendations are provided for transforming this area from a suburban strip format to a vibrant, healthy, connected, prosperous and walkable node.
- Connect the People to the Parks (page 28)
- Celebrate Local Character and Context in the Charlotte Harbor Historic District (page 29)
- Continue Charlotte County's practice of engaging residents and stakeholders as co-authors of their future

Images of walkability. Below, Winter Park, FL.



Images of walkability. Below, Davis, CA.



Workshop Participants' Desired Outcomes

At the start of the workshop, participants were asked to share their thoughts on what they'd like to achieve during the day, what they would like outcomes to be, and what efforts they want to prioritize. Their thoughts were expressed as:

- Start building from the heart, to have more prosperous, healthier and safer communities
- Greater accessibility
- Solutions to improving the aesthetics by getting cars out of view. Reducing the amount of wasted space.
- How do we make the bicycle and walking pie bigger?
- Want to gain an added perspective
- Improved safety for all modes of transportation
- More transit in Charlotte County
- Want to see more pedestrians, and especially people with disabilities be included
- Absence of people indicates that we perceive the environment to be unsafe
- Bike paths are not wide enough for three-wheeler bikes. I use one for my transportation, but don't want to travel many places because it's unsafe.
- Commissioners are criticized when they put in walkways and no one uses them, but other places have sidewalks that work.
- How do road diets work? How does this help reduce congestion and improve the life of the community?
- Came to listen.
- Some people want to see this area become a tourist destination, while retaining the quaintness of the area.
- We need more green and trees.
- Greater handle on ways to educate and get people to see and understand investments.



The Walking Audit

The following general areas were visited as part of the walkability audit and during a site visit the day prior to the workshop.

- Tamiami Trail (U.S. 41) and Olean Boulevard
- Tamiami Trail and Harbor Boulevard
- Tamiami Trail, Kings Highway and Parmely Street
- School House Square shopping center
- Kings Highway and Harborview Road
- Tamiami Trail and Melbourne Street near the bridge
- Charlotte Harbor Historic District
- Bayshore Road
- Bayshore Live Oak Park
- The West Tarpon Boulevard Beautification Project

The observations in the following sections were informed by walking audits led by the WALC Institute's Executive Director Dan Burden and Director of Outreach Kelly Morphy.



Findings and Recommendations

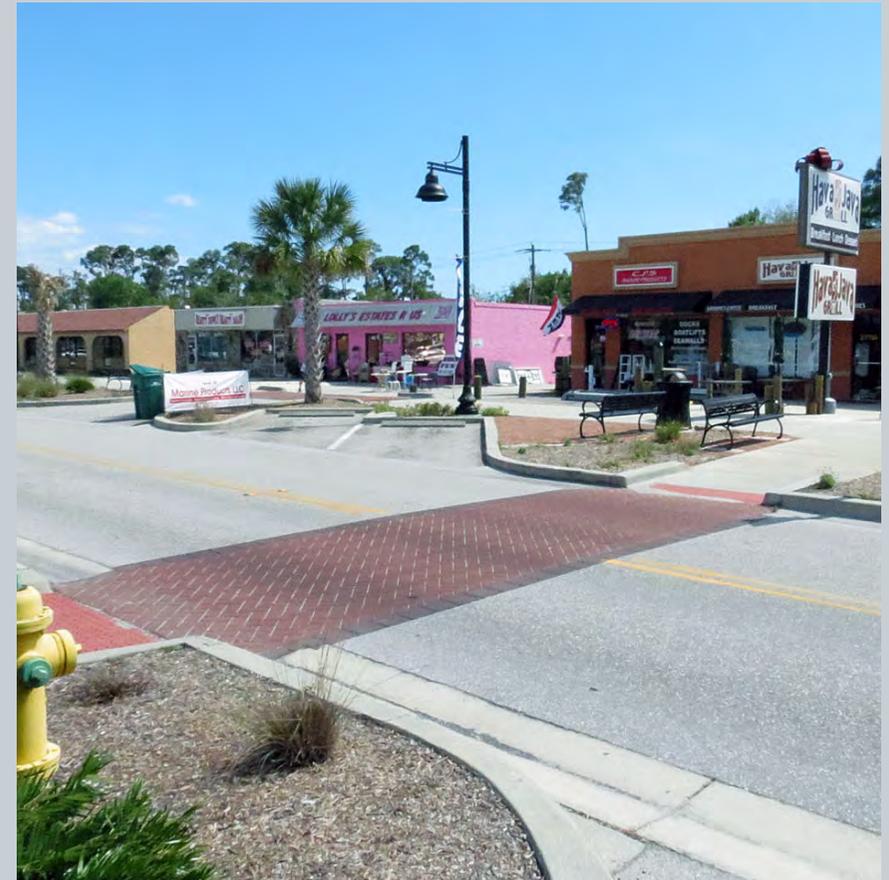
Most of the areas visited as part of this technical assistance were found to generally be unfriendly to people, with a couple of notable exceptions. The areas are full of challenges to people walking and biking, but also are full of opportunities and promise.

Throughout the study area, sidewalks and connections are missing, vehicle speeds in some locations are too high to be comfortable or safe for people outside of cars, and the development patterns are mostly vehicle-focused, which limits economic development opportunities.



Build upon successes: focus on people

An area worth noting for its walkability and placemaking value is the West Tarpon Boulevard Beautification Project. The effort to encourage foot traffic in this area and reclaim some of the over-built frontage road for people, not just cars, should show a strong return on investment over time. There was a clear attempt to keep crossings at driveways narrow, which welcomes and supports people who are walking to their destination. This could be a model project that helps build capacity and support for similar efforts in other parts of Charlotte County.



Opportunities: The Entire Audit Area

Although recommendations are made for specific locations along the audit route in subsequent sections of this memo, the entire audited area would benefit from the overarching recommendations that follow. See the attached Livability Toolbox for more information.

Add and Fix Crosswalks

Evaluate each crossing location and condition. Where needed, repaint crossings that are faded or forgotten. Ladder crossings are very visible and can be cost-effective solutions. In some locations, enhancing crosswalks is only a matter of applying new paint.

Fill in Sidewalk Gaps

Sidewalks are missing or in need of repair in many important places, including along Tamiami Trail. Fill in sidewalk gaps and properly maintain existing sidewalks.

Charlotte County can begin by assuring that sidewalk gaps are filled in some sections when the next resurfacing project goes forward. Several portions of roadway are already scheduled for resurfacing, and these can become model projects.

Bring Drivers Back Down to Earth

Install post-mounted signals, to bring the gaze of the person driving back down to Earth, where they can see people, other cars and potential points of conflict.

Although post-mounted signals are not yet common in Florida, they are a low-cost method of enhancing traffic safety at one of the most important locations, intersections.

Sidewalk gaps like this one need to be filled in. Charlotte County could start with portions of roadway already scheduled for resurfacing.



Install post-mounted signals to help bring a driver's gaze back down toward the ground, where people are located. Below: San Mateo, CA.



Accommodate all Users

Streets, driveways and ramps need to accommodate people of all abilities. Where driveways cross walkways, care should be taken to ensure the slope meets the requirements of the Americans with Disabilities Act.

In general, a person in a wheelchair can navigate a ramp with a two-degree slope. A slope greater than that can send the person into traffic. Crossings should be accessible to people in wheelchairs, using crutches, or pushing strollers, as well as people who are blind and use canes to walk.

Sidewalks need to be completed so that there aren't gaps preventing people with mobility aids from crossing streets safely.

No single area in our walking audit route was fully accessible. Retrofitting areas to fully accommodate all people will not be easy. But with a plan and people-friendly focus, many neighborhoods will one day provide for all people.

Above, a woman in a wheelchair crossing Harbor at Tamiami Trail must wait at the nearest driveway for the walk signal due to a lack of sidewalk access at the corner. Below, with the walk signal, she heads out into the street.



Maintain Trails for People, Not Machines

Where trails, walkways and paths exist or are built, maintain them for non-motorized use to the extent possible. An obvious exception is for light-motor assisted wheelchairs or scooters that provide access and mobility for disabled users.

Best Practice: Motor-assisted wheelchairs are permitted, but most other motorized devices should be kept off trails, like this one in The Netherlands.



Start a Community Garden

A community garden can be a catalyst for neighborhood revitalization. An ideal location for such a garden would be in the historic Charlotte Harbor area.

According to the American Community Gardening Association, a community garden:

- Improves the quality of life for people in the garden
- Provides a catalyst for neighborhood and community development
- Stimulates Social Interaction
- Encourages Self-Reliance
- Beautifies Neighborhoods
- Produces Nutritious Food

Community gardens, like this one in High Springs, Florida, help build social capital, support active living and provide healthy foods.



- Reduces Family Food Budgets
- Conserves Resources
- Creates opportunity for recreation, exercise, therapy, and education
- Reduces Crime
- Preserves Green Space
- Creates income opportunities and economic development
- Reduces city heat from streets and parking lots
- Provides opportunities for inter generational and cross-cultural connections

Resources are available for help with starting a community garden. Visit <http://www.communitygarden.org/learn/starting-a-community-garden.php>.

Below, a community garden in the Seattle area is located adjacent to a residential development and is watched over by the neighbors.



Think of Trails for Recreation *and* Transportation

Sidewalks, bike lanes and trails are for far more than recreation. They also provide for important forms of transportation. In the images here, people in Port Charlotte use their feet and their bikes as a way to get around, including for errands like laundry and shopping.

According to the most recent Journey to Work census data available, less than two percent of commute trips in Charlotte County are by foot or bicycle. Meanwhile, surveys show that more than 80 percent of people in the U.S. say they want to have foot and bicycle access to places they go.



Opportunity: Plant and Preserve Trees

Street trees are of critical importance in Charlotte County. Not only do trees provide much-needed shade, but they also help to calm traffic, create a strong sense of place, help reflect the community's character and values, and provide environmental benefits such as uptake and filtering of stormwater. Greening and shade also are a boon to tourism.

Create a Tree Nursery. Now.

On occasion, concern has been expressed about the expense of adding street trees to redevelopment plans. Although saplings generally grow into mature trees in relatively short order in Florida, it is a good idea to create and maintain a stock of appropriate trees that will be available as needed. The sooner a tree nursery is begun, the sooner saplings and mature trees will be available for planting.

Best Practice: These street trees in Orlando help calm traffic and create a sense of place. They also provide environmental benefits.

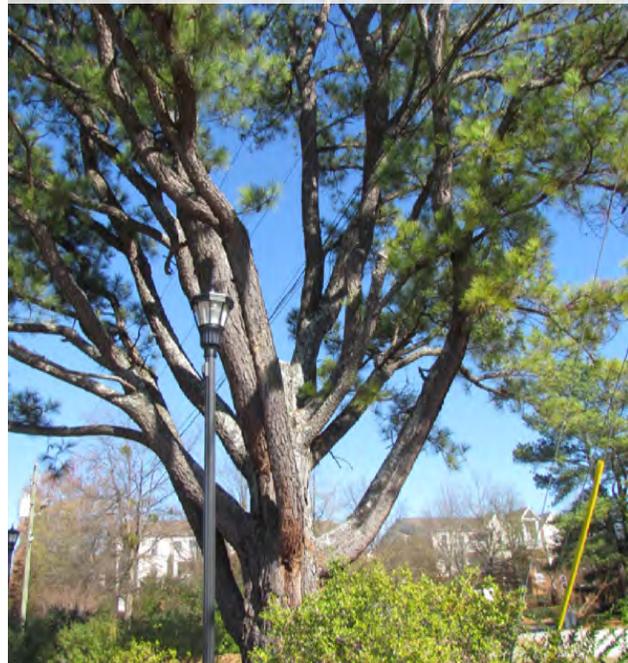


Preserve Existing Trees

Preserve existing trees to the extent possible. Where utilities need to be routed through trees, make the effort to do so in a manner than doesn't harm the tree. Where construction is planned, try to relocate trees instead of destroying them. Leave trees intact unless a truly compelling reason exists to remove them.

For example, an oak tree that sits on the southwest corner of Tamiami Trail and Parmely provides nice shade and could be part of a gateway feature connecting Kings Village to the historic Charlotte Harbor area. Efforts recently have been undertaken to determine that the fig tree intertwined with the oak isn't harming it, but the fig tree and an adjacent Sabal palm may need to be removed to preserve the oak tree.

Best Practice: In Morrow, Georgia, utility lines are routed through a tree in a way that doesn't harm the tree.



Tap Into Native-Tree Funds

Community organizations can apply for up to \$50,000 per year and county departments can apply for unlimited funds to replace native vegetation and enrich the tree canopy within public spaces, through Charlotte County's native-tree replacement fund. Additional funding may be available through urban-tree foundations, regional and federal agriculture and forestry departments, the Florida Forest Service, and others.

This oak tree along Parmely should be preserved as part of a gateway feature connecting a new "village" to the historic Charlotte Harbor area.



Opportunity: Calm Traffic and Create a Gateway at Tamiami Trail and Harbor Boulevard

Existing conditions at Harbor Boulevard and Tamiami Trail, below, don't create a sense of place or welcome. In addition to adopting the overarching recommendations described earlier in this memo, create a gateway feature at this intersection that conveys the county's vision for the area as a medical district.

The images to the right show how the community of Morrow, GA is envisioning transforming a placeless corridor into a special district that supports and celebrates genealogy, history and archives. Similarly, the Parkside CRA could create a vision for the area that conveys through visual cues and a gateway entrance that someone is arriving at a special place where they should slow down and spend some time.

Below, existing conditions in Morrow, GA.



Below, Morrow, GA's vision for its future.



Opportunity: Create a Village at Tamiami Trail, Kings Highway and Parmely Street

The intersection of Tamiami Trail, Kings Highway and Parmely Street lacks a sense of place and feels unsafe. On at least one approach, vehicles make high-speed right turns at the same time people are given the walk signal to cross the street. The intersection is very wide and the existing crossings also are wide. Sidewalk gaps leave people walking on the road shoulder and adjacent grass. No provisions at all are made for a person wanting to cross Tamiami Trail on the south side of Kings Highway. This may be intentional, as doing so might be too dangerous given the current street design, but people walking and biking should be provided the same level of support and access as those who are driving cars.

When this intersection is rebuilt, channelized islands, well-marked crossings, sidewalks and other basic amenities will be essential for public safety and accommodation. At the very least, enhance the crossings at Parmely and Tamiami Trail. People living south of Tamiami Trail may want to get to the Schoolhouse Square shopping center and should be fully supported in doing so without having to get

in a car.

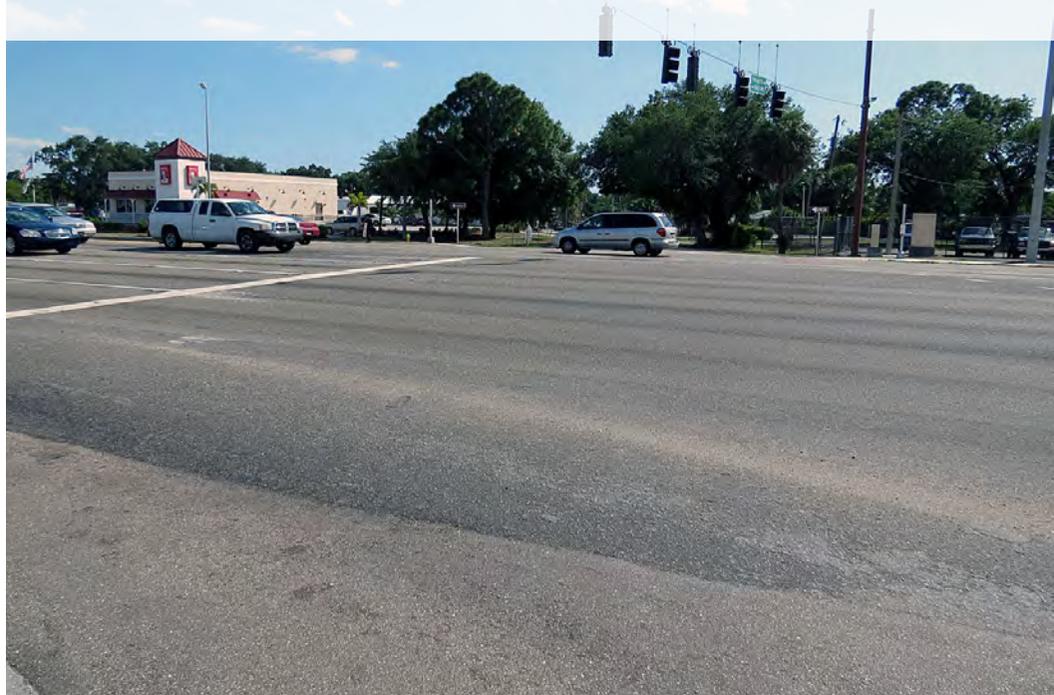
An Even Bigger Opportunity

An even more significant opportunity exists: to redesign the streets and redevelop the blocks to create a “village” that is vibrant, walkable, economically successful and that connects to Bayshore Live Oak Park in the Historic Charlotte Harbor district. Of course, this is not the only area visited that would make a good village in Charlotte County, but this location already seems to have energy in place that would support development of a village, and there is good housing stock in close proximity to make this a good place to start with village development in the county. Another place that might be a good location for a village is the medical district near Tamiami Trail and Harbor Boulevard.

Tamiami Trail, Kings Highway and Parmely St. present a dangerous intersection for people who aren't in cars. The crosswalk is set back from the intersection and the turning radius allows high-speed right-turns on red.



A person without a car wishing to cross Tamiami Trail at this location isn't accommodated at all.



The Parmely and Kings Highway Village

At this location lies a great opportunity to create a village that connects what currently is the Schoolhouse Square plaza with the Parmely district, and continue a people-friendly connection all the way to the water and Bayshore Live Oak Park.

To create a village at Tamiami Trail, Kings Highway and Parmely Street, adopt the recommendations that follow.

At the intersection of Tamiami Trail, Kings Highway and Parmely Street is a great opportunity to create a vibrant and prosperous village, connect it with the Parmely district, and continue a people-friendly connection all the way to the water and Bayshore Oak Park.



The Parmely and Kings Highway Village

Convert School House Square and Adjacent Areas from Strip Malls to a Walkable Commercial Center

At School House Square, use “liner buildings” to create a development that fronts and honors the street and also creates a pedestrian scale. Where the driveway currently sits near Tamiami Trail, consider making it an “ingress-only” driveway to narrow the crossing and reduce traffic complexities near the intersection.

“Liner buildings” like the one below in Kingston, WA, help to convert strip malls into walkable commercial centers. The liner building is placed to front the street, with parking behind it, which creates a people-scaled environment. Over time, other liner buildings fill in and what was once a car-focused strip mall becomes a people-focused commercial street.



Connect Parmely to School House

Parmely can be an extension of the School House Village. In this way, there is not only a connection between the village and the neighborhood, but there also are more “eyes” and potential customers exposed to the businesses along Harper, Foster and Oakley. The area of Foster, Harper and Oakley then becomes an important and authentic place for the neighborhood and an extension of the village.

Create social connections and capital

Communities throughout the country are recognizing the value and benefits of transforming the built environment to make it easier for people to be socially connected. In the Bird Rock neighborhood of San Diego, below, a street redesign and related economic development created a natural “gathering spot” for the community where neighbors could run into each other, or meet for the first time. The benefits aren’t just for the individuals. Rather, it is well documented that communities with high levels of social connectedness have better general health and well-being, reduced health care costs, higher property values and higher social capital. Communities with higher social capital are characterized by a culture of neighbors knowing each other, interest and participation in politics, and high rates of volunteerism.



The Parmely and Kings Highway Village

Avoid Adding Lanes

Adding a right-turn lane to turn from Parmely onto Tamiami Trail would unnecessarily degrade the gateway entrance to the Parmely side of the village. There appears to be enough street connectivity coming out of the neighborhood that a right-turn lane isn't justified, given what that would do to the neighborhood character. Instead, to accommodate traffic, encourage drivers to utilize Foster to turn south onto Tamiami Trail.

In Fact, Consider Removing Lanes

On Kings Highway in front of School House Square, the community can calm traffic and enhance economic vitality by removing one vehicle lane in each direction. The remaining right-of-way can be reallocated to support people who are outside of cars by:

- adding a planter strip to create a sense of place, offer shade and provide a buffer between people and vehicles passing by
- widening the sidewalk to be more appropriate for a commercial district
- adding bike lanes
- maintaining a median for pedestrian refuge

Similarly, a "road diet" may be a good option between Oakley Street and the bridge. Local leaders should study this option for its traffic-calming and placemaking value. The three lanes of capacity seem upon initial observation to be unnecessary along this stretch, especially given the absence of any major or signalized intersections along this stretch. Also, the road is two lanes between Bayshore Road and the bridge, anyway, so it might be possible to remove one vehicle lane in each direction between Oakley and the bridge and reallocate to support walkability.

See the attachments for more on road diets.



Instead of adding a lane to turn right from Parmely onto Tamiami Trail, encourage drivers to use existing streets like Foster, above. This positions Foster to revitalize and also helps preserve the natural gateway to Parmely and the Historic Charlotte Harbor district. Below, a road diet in Orlando, FL helps calm traffic, enhance walkability and support retail life.



The Parmely and Kings Highway Village

Install a roundabout at Kings Highway and Harborview Road

At the intersection of Kings Highway and Harborview Road, a modern roundabout could help move traffic more efficiently, enhance walkability and foster retail sales and economic prosperity. See the sidebar to the right for more information and links to resources on modern roundabouts.

A modern roundabout in San Diego, CA, has helped calm traffic and foster economic development, while moving traffic more efficiently. Roundabouts won't work in all locations, but where they will, they can be powerful placemaking tools.



What is What: Mini Circles, Rotaries and Roundabouts

Mini Traffic Circles: Also called “mini circles,” these are intersections that 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 circles should be designed to reduce speeds to 15 to 18 mph at each intersection. A proper number of them will reduce vehicle speeds to 22 to 25 mph along the corridor while helping traffic flow more smoothly due to the decreased number of complete stops.

Rotaries: Also called traffic circles, rotaries are intersections that navigate cars around very large circulating islands, as big as a football fields in some cases. Rotaries can be cumbersome and can induce higher crash rates. Many rotaries are being replaced with roundabouts.

Roundabouts: Also called “modern roundabouts,” they navigate cars around a circulating island, usually about 60 to 120 feet in diameter. Roundabouts are ideal for collector and arterial roads, and around 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. (See the Insurance Institute for Highway Safety’s website: <http://www.iihs.org/research/topics/roundabouts.html>.)

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 Federal Highway Administration’s educational video about roundabouts, at http://safety.fhwa.dot.gov/intersection/roundabouts/fhwasa10023/wmv_cc_final/10-2124_Roundabouts.wmv.

The Parmely and Kings Highway Village

Keep Traffic Calm Heading to the Water

Encourage calm traffic and slow vehicle speeds by not marking Parmely with center lines. Keep it to its current 17 feet in width, and add bold, wide edge stripes about a foot in from each edge, leaving between 15 and 16 feet for vehicle travel. This will keep the road visually narrow, which will help keep vehicle speeds low. Incidentally, keeping vehicles off the edge of the roadway helps prevent the edge from unraveling.

Install a mini circle at Parmely and Seneca to keep traffic calm and enhance the sense of place and visual interest. Mini circles can be very affordable. The mini circle below left, in Port Townsend, WA cost the community only \$400. It slows cars down and has created a mini destination for the neighborhood. Most mini circles aren't this affordable, but still can be installed for as little as \$5,000.



At Parmely and Seneca, workshop participants formed a “human mini circle” in the intersection and observed how vehicles slowed to travel around them.



The Parmely and Kings Highway Village

Add a Trail and Street Trees

Parmely seems to include enough right-of-way to add a wide trail and shade trees that will allow residents to comfortably walk or bike north toward the School House Square village, and allow people shopping at School House Square village to head south into the Charlotte Harbor Historic District to enjoy the water and the Bayshore Live Oak Park. This adds quality to lives and adds value to properties.

Along Parmely, heading toward the water, a span of about 16 feet separates the utility poles from the roadway edge, leaving what seems to be enough space to add a ten-foot trail. Line the trail with trees for shade and to create a vertical alignment to the water. Create a terminating vista of the water.

Use of a boardwalk style trail was discussed as one way to preserve the roots and support a longer life for these trees. New plantings, and removal of trees nearing the end of their functional life is also a consideration for this area.

Below, an eco-evac trail envisioned for the Gulf coast area of Alabama. Left, a wide trail connects the community to the ocean, nature and recreation. Right, during emergencies the trail can be opened up for a one-way evacuation route. Afterward the emergency, the trail can be opened to only emergency and delivery vehicles to bring in supplies.



The Parmely and Kings Highway Village

Pay Attention to the Details

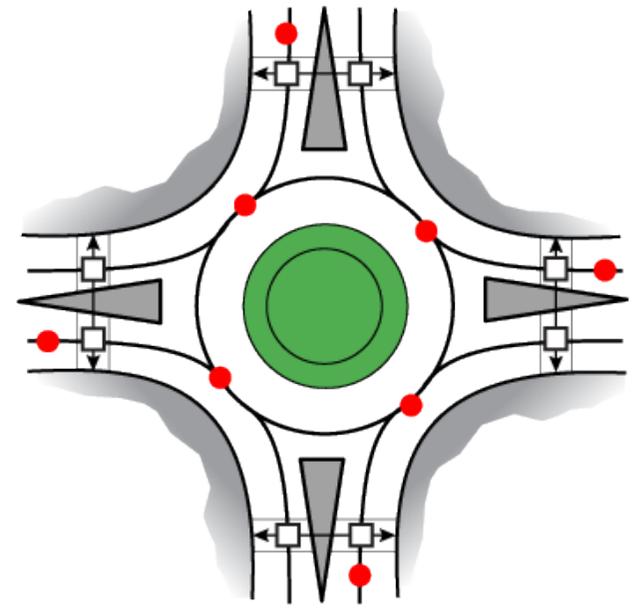
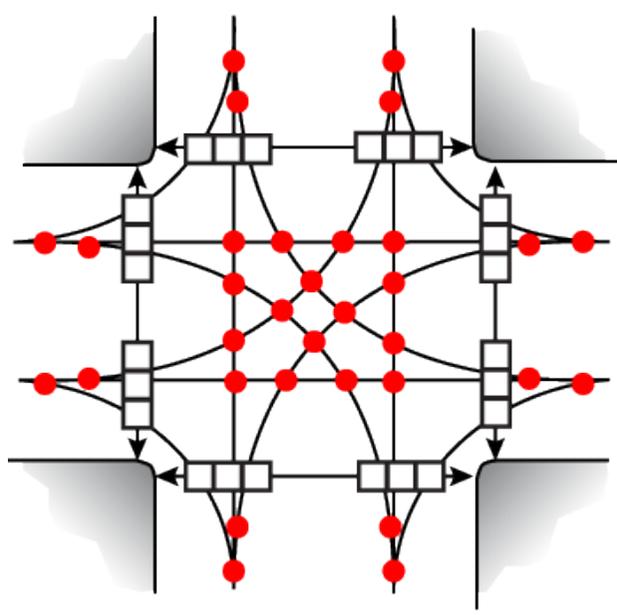
Details matter, especially when designing the tools of walkability, such as villages, traffic-calming features, and "facilities" for people outside of cars.

Pay attention to the details to help ensure that areas that redevelop in Charlotte County do so in a way that brings long-term value to the community. For example, if adopting newer tools such as modern roundabouts, it is strongly recommended that designers and engineers with a lot of experience be brought in to assist or provide a peer review. Unfortunately, some communities have seen the value of modern roundabouts and chosen to build them, but did so in a way that led to higher vehicle speeds and less walkability, and are now retrofitting them.



Above right: Create an incentive for a grocer to locate at the Parmely Kings Highway Village to offer fresh, healthy food.

Right: Done properly, modern roundabouts are safer than signalized intersections partly because they create fewer conflicts. Below: A series of roundabouts in Hamburg, New York, moves traffic smoothly while also supporting retail.



The Parmely and Kings Highway Village

Envision It

Take the time to create a vision for the Parmely Kings Highway Village. Doing so will help leaders and stakeholders work through important details and issues, and will also create an valuable educational tool that might help build capacity and support for the change.

Below are the existing conditions on Kings Highway near Tamiami Trail.



The stretch of road below, in Gulf Shores, Alabama, is similar to Kings Highway near Tamiami Trail. See the following pages for changes envisioned here.



The Parmely and Kings Highway Village



Existing conditions in the coastal town of Gulf Shores, Alabama are similar to those at the intersection of Tamiami Trail and Kings Highway in Charlotte County. The streets are over-built for cars and under-built for people. This suppresses property values and limits potential. This community now has a vision for a better future

The Parmely and Kings Highway Village



A vision for a village with active living and quality economic development. Working within the existing right-of-way, the street is made more supportive of people using all modes of transportation. The buildings front and honor the street, making the locale a more desirable destination. The village is connected to the water with a walkable dock fronted by a gateway gazebo. The gazebo at the waterfront also becomes a pleasant and inviting terminating vista for the road.

Opportunity: Connect the People to the Parks

At Bayshore Live Oak Park where Parmely terminates, remove underbrush and relocate some plantings to allow for a viewshed of the water. This capitalizes on the great natural asset, creates a sense of place and importance, and will draw people to it. Consider a sculpture garden such as found in Sarasota.

Create a people connection into the park from Parmely. Currently, people walking need to walk down into a swale to get into the park.

Act on the plan to connect Chester Roberts Park to Bayshore Live Oak Park.

The two images to the right represent an area where a cafe or eatery with outdoor dining could be very successful. Below: "This park should be the heart of the community," Dan Burden said.



Opportunity:

Celebrate Local Character and Context in the Charlotte Harbor Historic District

The area in and near the Charlotte Harbor Historic district is full of character and interesting context. Celebrate these unique assets with quality wayfinding and area branding.



Engage residents as co-authors of their future
 Thelma, 83, has lived along Bayshore since 1950. She raised all of her children there and says she has seen a lot of changes. "The people and character of this neighborhood make it very special," she says. Residents and other stakeholders like Thelma should be engaged in planning changes for the area.

Concluding Thoughts

To improve well-being and to help ensure that Charlotte County revitalizes in a manner consistent with community values and vision, careful planning and execution are required. Immediate action also is needed, however, and the resolve of residents and leaders bodes well for the success of the community.

Nonetheless, implementing the recommendations of this report won't always be easy. Many of these recommendations represent best practices from throughout the country, including many that are not conventional in their approach. They will require flexibility and creativity on the part of the staff developing them and considerable outreach to the people most affected by the changes.

As they are implemented, some residents or business operators may at first express concern or resistance. Bring them into the process and help them understand the value of the effort. Be assured throughout that these recommendations are based on extensive knowledge of tools that are working in other places in the country and can work in Charlotte County.

In some cases, drive times in vehicles will be slightly longer, although usually by a matter of seconds, not even minutes. But community members can—and should—adapt to slight reductions in vehicle speeds by leaving a minute or two earlier for their combined trip, so that they are not late for work and don't feel compelled to drive fast near villages, parks, schools or other places where people should be walking and biking.

Seize the opportunity to create a healthy place, with healthier people and a healthier economy. Here's to walkability in Charlotte County.

What We Heard

At the conclusion of the workshop, participants were asked to share some of their observations. Their thoughts were expressed as:

- Seeing a woman trying to cross the intersection in a wheelchair was a real eye opener.
- It is astounding how we all have come together for this, coming from different backgrounds, because we really care. It is very gratifying.
- It was striking how “in-human” the scale of the built environment is. When you get out of your car and have to engage in that environment, it's like, wow, this is a scary place.
- An entire corridor plan probably isn't needed, but instead we can just start with a segment, get it done, and build on successes from there.
- We may need to accept a little bit of construction pain, and maybe temporary traffic congestion, in order to get the benefit.
- The walk really helped put me in touch and understand the magnitude of what we're talking about.
- It takes a huge leap of faith to ride a bike on the 41 because there's no traffic calming, it's ugly, and there seems to be a need for vehicle speed.

The workshop participants at the Charlotte County Historical Center at the conclusion of the walking audit.





Livability Toolbox

Livability Toolbox

Whether you work at the policy, program, project or personal level, you can encourage active living by recognizing barriers and working as a community to remove them. Use the tools that follow to help transform your community.

Toolbox Contents

Effective Civic Engagement

- TOOL: Take them to the Streets
- TOOL: Visioning Versus Hearings and Process
- TOOL: Ground Rules for Facilitators
- TOOL: Do More than Translate

Build Complete Streets

- TOOL: Complete Streets Policy
- TOOL: Designing for Pedestrians
- TOOL: Street Treatments to Encourage Active Transportation
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Encourage Safe Routes to School

- TOOL: Safe Routes Strategies
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Protect Place

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Support Livable Communities

- TOOL: Street Design Guidelines for Livability
- TOOL: Working Effectively with Others
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Effective Civic Engagement

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. In general, community engagement activities need to address issues that the public perceives as important. Thus, while developing the community outreach plan, project developers should seek ways to explain to the public why the project matters. 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, print materials 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 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, 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, which will include the identification of outreach goals, definitions of success, measures for evaluating effectiveness, and ways to adjust for improvements over time.

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, community is more than 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 non-traditional outlets (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 identify and reach out to people and organizations that may be expected to oppose the project under development. 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 community 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 – safety and security, economic development, recreation and places to play, and so on – and that their goal should be to collaborate on ways to achieve those ideals through the project being developed.

Approach Engagement as a Two-Way Conversation

Effective public engagement involves much more than telling people about a project. Rather, effective engagement 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: <http://www.portofbellingham.com/index.aspx?NID=344>

Celebrate Successes

It is important to celebrate early successes to publicize new community assets, bring recognition to the people involved, reaffirm that the process has worked, and build more support.

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.



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.



TOOL: Take Them to the Streets

Dan Burden, executive director 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.

Below: Grand Junction, 7th Street, after a road diet and revitalization.



Getting it Right

Engage Key Partners Early: Identify community-based organizations, government agencies, health-care 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 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 Commerce, 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 ad-

dressed. 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.

TOOL: 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 Just 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.



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



TOOL: Visioning Versus Hearings and Process

Say, for instance, there's an old boarded-up mill on a ten-acre site in the heart of an inner-ring suburb. Area residents and business owners are invited to a three-hour meeting during which they're encouraged to break 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 the ideas. After an appropriate amount of time, each of the groups presents their vision for the property, recommending what should be built 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.

Architects are 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 that makes it meaningful to them. They understand its individual features and the rationale behind them.



TOOL: Ground Rules for Facilitators

Set ground rules to improve productivity and success

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>.

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.



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



The San Joaquin Valley [Calif.] Air Pollution Control District culturally adapted its summertime smog-prevention 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.)

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 carpoled 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.



Events also can be culturally adapted. In Mecca, CA, a workshop in a primarily Hispanic community included a mariachi band and live translation between English and Spanish.

TOOL: Complete Streets Policy

A Complete Streets policy ensures choices to the community by making walking, bicycling and taking public transportation convenient, easy and safe. Changing policy so that transportation systems consider the needs of pedestrians, bicyclists and transit users means that people of all ages and abilities are included in the planning and design processes.

Land use and transportation policy can either contribute to or detract from community building. When thoughtfully integrated, land use and transportation policies and strategies can jointly preserve and even enhance natural and cultural resources and create better built environments that are walkable, livable and sustainable. Regardless of a policy's form, the National Complete Streets Coalition has identified ten elements of a comprehensive Complete Streets Policy.

- Includes a vision for how and why the community wants to complete its streets
- Specifies that 'all users' includes pedestrians, bicyclists and transit passengers of all ages and abilities, as well as trucks, buses, emergency vehicles, and automobiles.
- Encourages street connectivity and aims to create a comprehensive, integrated, connected network for all modes.
- Is understood by all agencies to cover all roads.
- Applies to both new and retrofit projects, including design, planning, maintenance, and operations, for the entire right of way.
- Makes any exceptions specific and sets a clear procedure that requires high-level approval of exceptions.
- Directs the use of the latest and best design criteria and guidelines while recognizing the need for flexibility in balancing user needs.
- Directs that Complete Streets solutions will complement the context of the community.
- Establishes performance standards with measurable outcomes.



A photo-visualization of a Complete Street created by the WALC Institute for AARP CA.

Resources

Rural by Design by Randall Arendt

The Timeless Way of Building and *A Pattern Language* by Christopher Alexander

Sprawl Repair Manual by Galina Tachieva

National Complete Streets Coalition at <http://www.completestreets.org/complete-streets-fundamentals/resources/>

TOOL: Designing 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. The PBIC serves anyone interested in pedestrian and bicycle issues, including planners, engineers, private citizens, advocates, educators, police enforcement, and the health community. Model pedestrian plans are available at <http://www.walkinginfo.org/develop/sample-plans.cfm>



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

TOOL: Street Treatments to Encourage Active Transportation

Raised Midblock Crossing

Raised midblock crossings are used between intersections, typically when blocks are long, or in other locations where speeds are higher than desired, or where sight distances are poor. Raised midblock crossings have many advantages, especially due to their ability to maintain speeds at 15-20mph 24 hours a day. Raised crossings can be used in all climates, including snow country. The grade change is generally 1:16 to 1:20 when snow and ice are involved, but 1:12 in non-snow country. Color is often used. Trees and other landscaping are important for detection, and for added neighborhood acceptance.



A raised mid-block crossing in Cambridge, MA helps motorists see pedestrians in deep shadow

Raised Crossing



The use of color and texture informs both drivers and pedestrians to anticipate one another

Raised crossings are not only used in midblock locations, they are used at intersections. They can be used at right turn channelized island, or at regular intersections. Crossings are designed to restrict all through speeds to 15-20 mph. Raised crossings at intersections can be used in snow country. The grade change is generally 1:16 to 1:20 when snow and ice are involved, but 1:12 in non-snow country. Color is often used. Features such as bollards, paver stones, colorized concrete or colorized asphalt are often specified. Raised crossings at intersections are used widely in snow cities such as Stamford, CT and Cambridge, MA.

Raised Intersections

Raised intersections are used at intersections where roundabouts or mini-circles are not functional or practical, and where speeds need to be brought under control. They are different from raised intersection crossings, since they cover the entire intersection. This raises their value and cost considerably. Raised intersections are best constructed as new schools are built, but they can be applied to existing street sections. Raised intersections can be expensive, due to their potential to interrupt drainage. Meanwhile, they have many advantages to maintain speeds 24 hours a day. Raised intersections can be used in snow country.



Raised intersections bring speeds under control and help motorists and pedestrians see each other

TOOL: Street Treatments to Encourage Active Transportation

Crossing Markings

Crossings should be well placed and located where there is a strong desire to cross, sight distances are good, and speeds are low. The use of materials to create attractive streetscape features can add beauty, function and a sense of place. Each functional part of a street – parking, crossings, curb extensions, lane narrowing and plantings – should be designed to add to the aesthetics, character and integrity of the street. Cities must maintain crossings and note when they become faded. Volunteers can help in this surveying effort.



Crossings must be located where there is a strong desire to cross and where sight distances are good

Crosswalk Signs



Signage allows users to anticipate one another

As a general rule, the higher the volume and speed of traffic, the more essential it is to use brighter, wider more visible and durable signing. The most recent version of the Manual on Uniform Traffic Control Devices (MUTCD), and other aids, should be consulted as a starting point. When possible, “double sign” school signs on all approaches. This can be done when medians are used, and on narrower streets, by signing both sides of the street. Sign locations are important. Place signs (and lighting) together, and place signs where they are highly visible and where you anticipate crossings.

Pedestrian Refuge Islands

Pedestrian refuge islands are one of the best tools for simplifying the crossing of wide streets. Used with curb extensions, they get pedestrians out beyond parked cars and other visual obstructions. Crossing islands are used on all categories of streets, and they have their highest return on investment when they create more courteous yielding behaviors by motorists. Well designed crossing islands achieve yielding rates above 80 percent. Many other tools, like Rapid Flash Beacons, or raised crossings, are used when it is necessary to increase yielding behavior.



Pedestrian refuge islands buffer pedestrians from traffic, allow crossings in stages and angle pedestrians correctly to face traffic.

TOOL: Street Treatments to Encourage Active Transportation

Road Diets

A road diet involves eliminating travel lanes to improve safety for pedestrians, bicyclists and motorists. Motorist crashes are typically reduced 12 to 30 percent, with some drops as high as 70 percent. High end speeds, especially, are reduced. While there can be more than four travel lanes before treatment, road diets are generally conversions of four-lane, undivided roads into three lanes—two through-lanes plus a center turn lane or median island. The fourth lane may be converted into bicycle lanes, sidewalks, planter strips for street trees, a bus stop, a separated multi-use trail, a wider outside lane or for on-street parking. See the attached paper for more information about road diets.

Before Road Diet



After Road Diet



Roundabouts



Vehicles using a roundabout on Route 62 in Hamburg, NY, where traffic is kept calm and flows smoothly

Roundabouts facilitate through-traffic and turning movements without requiring a signal control. Roundabouts allow vehicles to circulate around an island that is often used for landscaping, a gateway or for other decorative features, like artwork. The circulating roadway is typically wider than the approach roadways and features an additional 'apron' against the edges of the island; both of these features allow for fire trucks, ambulances and other large vehicles. Roundabouts increase intersection carrying capacity by up to 30 percent. As the only requirement for yielding the right-of-way is to traffic already in the circulating roadway, roundabouts also reduce delays for everyone.

Mini Circles

Mini Circles are one of the most popular and effective tools for calming traffic in neighborhoods. Seattle has 1,200 Mini Circles and this has led to a reduction in intersection crashes. They are the best neighborhood safety feature of any treatment type. These inexpensive features do not interrupt drainage. Mini Circles work outward from intersections on all three or all four legs of approaching traffic. Mini Circles bring speeds down to levels where motorists are more courteous to pedestrians, they allow all types of turns, including U-turns, which can assist with school area traffic management. A common engineering mistake is to put in four way stops around a mini circle. Mini Circles require yield signs instead.



A mini-circle in the Bird Rock neighborhood of San Diego, CA

TOOL: Street Treatments to Encourage Active Transportation

Intersection Chicane

Intersection chicanes involve curb extensions on one side of the intersection, and a median on the opposite side. This combination of treatments brings the motorist toward the center, then brings them back toward the side. This deflection path brings speeds down to the desired level. All raised areas become gardens for the neighborhood. Both sides of the intersection are narrowed, minimizing crossing distance and time. Chicanes can be used on streets with volumes as high as 12,000 daily trips. Emergency responders and transit providers prefer chicanes to more intrusive four-way stops and raised crossings.



A large vehicle being deflected through a neighborhood Intersection Chicane, Santa Barbara, CA

Short Medians



A short median in Loma Linda, CA announces the entrance to a residential neighborhood

Short medians help bring down speeds near schools and other places where people should be expected. Short medians are placed away from intersections, but they can be located near driveways. These inexpensive features do not interrupt drainage and they have many other advantages. They bring speeds down to levels where motorists are more courteous to pedestrians and they allow U-turns, which can assist with area traffic management. Short medians also serve as gateways, where they announce arrival at an important location, such as a school. They help put motorists on greater alert. They work well in snow cities, as well as temperate climates.

Curb Extensions

Curb extensions are a nearly universal tool for school areas. In transforming overly wide streets, curb extensions (also known as bulb outs, elephant ears and nibs) bring down right turning speeds, identify important crossings, and make it much easier for motorists to see children and for children to see motorists. When used in a series, curb extensions can significantly bring motorist speeds to acceptable levels. Curb extensions can be used at intersections, mid-block, inside of parking strips (tree wells) and other locations. Although many curb extensions are kept plain in appearance, at the entry to a neighborhood, they can be landscaped to serve as attractive gateways.



A curb extension in Birmingham, AL shortens the crossing distance for pedestrians

TOOL: Street Treatments to Encourage Active Transportation

Signalized Intersections

Intersection control devices are critical if walking, bicycling and motoring are to work, and work together. People who cross at intersections, when they are signaled to do so, are most predictable. Drivers appreciate predictable and compliant behavior. When intersections become so complex and challenging that signals are added, there is often ample justification to go beyond conventional standards to address the needs of people walking and bicycling. Signal timing should be automated for inclusion of walking cycles. Signal timing should be adjusted so that signals recall to WALK during the cycle, minus the clearance interval.



Signals should recall to WALK during the cycle and instruct pedestrians on crossing times.

Bike Lanes



Bold striping and markings remind drivers that bicyclists belong on the road

One of the most cost effective ways to reduce speed while improving overall vehicular flow and creating improved conditions for bicycling and walking, is the conversion of overly wide roads to bike lanes. Generally, travel lanes can be reduced to 10 feet. Narrower travel and storage lanes are proving to be slightly safer. Motorists appear to become more attentive when lanes are narrowed from 11-12 feet to 10 foot travel lanes. Bike lanes should be at least 5 feet wide and seamless. Thick striping and regular markings remind drivers to anticipate bicyclists. Bike lanes have an added benefit to pedestrians in that they provide a buffer to moving traffic.

Plazas, Parks and Paseos

Transforming a street, sidewalk, plaza, square, paseo, open lot, waterfront or other space into a community source of distinction, brings joy to the community. Good places make good experiences possible and they have consequences in our lives. People want to be in attractive, well designed and cared for public places. Investment in streets and other public spaces brings added value to all buildings and homes in an area. A compelling sense of place allows the time spent there to be rewarding and memorable. Converting alleys, sidewalks and streets into pocket parks, plazas and paseos creates lively places for people to gather, celebrate, eat and enjoy being together.



Madison, WI provides lovely outdoor eating areas even on its busiest streets around the Capitol

TOOL: Street Treatments to Encourage Active Transportation

Sidewalk Design

Sidewalks require high levels of design and care. It is within the protected spaces of a sidewalk where people move freely, but also spend time engaging others and enjoying their public space. Sidewalks work best when they are fully buffered from moving traffic. Color, texture, street furniture and other materials can distinguish functional areas of sidewalks. Using saw cuts rather than trowel cuts provides a better surface for wheelchairs and wheeled devices. Sidewalks have three parts: the shy zone, furniture zone and the walk/talk zone. If driveways must interrupt, keep these to minimal widths (14 feet for one way and 26 feet for two way). Use contrasting colors and materials and keep sidewalks fully flat across driveways.



Sidewalks have three parts: the shy zone, the furniture zone and the walk/talk zone.

Valley Gutters



Sudden downpour can create flash flood conditions. Valley gutters and rain gardens help channel water away from pedestrians

When water must be dealt with quickly, valley gutters are often a great design treatment. Placed behind parking or in the center of the street, valley gutters can channel water to drains or rain gardens. This keeps debris from pedestrian walkways and bikelanes, and allows pedestrians to navigate without stepping in puddles.

Tree Wells

Sometimes a building to building right-of-way is too tight to plant trees in sidewalk areas. Use of in-street tree wells can allow the street to be “greened” and often without removal of parking. Tree wells can either be installed to allow water to flow naturally in existing channels, or if a complete reconstruction is needed, to insert drainage in a pattern that supports trees. Tree wells are used on many local streets but can also be used, along with curb extensions, on main streets. Use of tree wells and curb extensions, in combination, helps bring speeds to more appropriate urban levels. There are 22 benefits to street trees: <http://tcstreetsforpeople.org/node/116>



Tree wells in the Town of Tioga, FL, provide shade and inset parking

TOOL: Street Treatments to Encourage Active Transportation

On-Street Parking



On-Street parking can be head-in, head-out or parallel. It takes less space than off-street parking.

On-street and inset parking visually narrows streets and brings down traffic speeds, while providing the most sustainable and affordable parking. Speeds are brought down even more when tree wells are used to provide a canopy to the street. Since it already has its own turn radii into each spot and access, on-street parking only takes up one-third of the land of off-street parking. But the primary reason for maximizing parking on street is to help civilize streets that were overbuilt for speed. On-street parking belongs on center city streets, serving as a buffer between pedestrians and moving cars as a natural traffic calming tool.

Head-Out Angled Parking

Head-out angled parking maximizes use of adjacent land, since off-street parking takes up three times more space than on-street parking. It also takes up less road space since adjacent lanes can be 10 to 11 feet wide. When head-out angled parking is used, lane widths can be much narrower, since back out “discovery time” is not needed. Also, the back end of vehicles have more overhang, so less space is used for the parking bay. Parking bay depths should be 15 feet. An added two foot of space is picked up when valley gutters are used. Learn the benefits of head out angled parking here: <http://vimeo.com/35268340>



Motorists can see bicyclists, motorists and pedestrians with head out angled parking.

Resources

Once a Complete Streets policy is in place, communities sometimes struggle with how to build Complete Streets. The treatments in this section provide benefits to all users, but to learn more about street treatments that support active transportation, visit the Los Angeles County Model Street Design Manual for Living Streets at:

<http://www.modelstreetdesignmanual.com/>

The manual explains key principles and practices to support active transportation, including best practices from around the world. Most importantly, it reminds us that transforming streets to accommodate all users adds immense value.

TOOL: The Benefits of Street Trees

Benefits

For a planting cost of \$250-\$600, a single street tree returns over \$90,000 of direct benefits (not including aesthetic, social and natural) in the lifetime of the tree. Street trees, generally planted 4 feet to 8 feet from curbs, provide many benefits to those streets they occupy. Generally street trees are placed 15-30 feet apart. These trees are carefully positioned to allow adequate sight triangles at intersections and driveways, illumination of the street from overhead lamps, and to work with utility lines above or below ground. Street tree varieties can be used in all climates, including semi-arid and even arid conditions. Properly placed and spaced, street trees provide many benefits.



Trees don't need to be leafy to make a statement. Here, a vertical wall is established by palm trees.

Appropriate Traffic Speeds



Trees create a sense of enclosure in Corvallis, OR

Street trees create vertical walls framing streets and a defined edge, helping motorists guide their movement and assess their speed, leading to overall speed reductions. Street safety comparisons show a reduction of run-off-the-road crashes and a reduction in overall crash severity when street tree sections are compared with equivalent treeless streets. When properly positioned and maintained, the backdrop of street trees allows those features that should be dominant to be better seen, such as vital traffic regulatory signs. At the same time, poorly placed signs, signals, or poorly maintained trees reduces this positive gain, and therefore, proper placement and maintenance must be rigidly adhered to.

Safer Walking Conditions

By forming and framing visual walls and providing distinct edges to sidewalks, motorists better distinguish between their environment and one shared with people. If a motorist were to significantly err in their urban driving task, street trees can deflect or fully stop a motorist from taking another human life. Trees call for planting strips or tree wells, which further separate motorists from pedestrians, buildings and other town fabric. Trees create more pleasant walking environments, bringing about increased walking, talking, pride, care of place, association and, therefore, actual ownership and surveillance of homes, blocks, neighborhoods plazas, businesses and other civic spaces.



Street trees line a trail in Davis, CA that buffers bicyclists from moving traffic

TOOL: The Benefits of Street Trees

Improved Business

Businesses on tree-scaped streets show 20 percent higher income streams, which is often the essential competitive edge needed for main street store success, versus competition from plaza discount store prices. Realtor based estimates of treed versus non-treed comparable streets relate a \$15,000-\$25,000 increase in home or business value on treed streets. This often adds to the base tax base and operations budgets of a city allowing for added street maintenance. Research and observations confirm that motorists perceive the time it takes to get through treed versus non-treed environments has a significant differential. A treeless environment trip is perceived to be longer than one that is treed.



Street trees in Beverly Hills, CA are part of the shopping ambience

Less Infrastructure Costs



A parking lot in Berkeley, CA is designed to reduce storm-water runoff

Trees absorb the first 30 percent of most precipitation through their leaf system, allowing evaporation back into the atmosphere. This moisture never hits the ground. Up to 30 percent of precipitation is absorbed back into the ground and taken in and held onto by the root structure, then absorbed and then transpired back to the air. Some of this water also naturally percolates into the ground water and aquifer. Storm water runoff and flooding potential is, therefore, reduced on treed streets. Studies conducted in a variety of California environments show that the shade of urban street trees can add 40-60 percent more life to costly asphalt.

Convert Emissions

Automobile and truck exhaust is a major public health concern and contains significant pollutants, including carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_x), and particulate matter (PM). Tailpipe emissions are adding to asthma, ozone and other health impacts. Impacts are reduced significantly from proximity to trees. Trees in street proximity absorb 9 times more pollutants than more distant trees, converting harmful gasses back into oxygen and other useful and natural gasses.



Trees in Santa Barbara, CA create outdoor rooms that feel far away from traffic

TOOL: The Benefits of Street Trees

Lower Air Temperatures

Streets and parking lots are known to increase temperatures 3-7 degrees. These temperature increases significantly impact energy costs to homeowners and consumers. A properly shaded neighborhood, mostly from street trees, can reduce energy bills for a household from 15-35 percent. Increases in urban street temperatures that hover directly above asphalt where tailpipe emissions occur dramatically increase creation of harmful ozone and other gases into more noxious substances impacting health of people, animals and surrounding agricultural lands. Temperature differentials of 5-15 degrees are felt when walking under tree canopied streets.



Street trees in the Town of Tioga Haile Plantation keep parked cars cool

Improved Well-Being



Tree wells screen parking and create a more welcoming environment in Basalt, Colorado

People are impacted by ugly or attractive environments where they spend time. Trees have a calming and healing effect on ADHD adults and teens. Although this may at first seem a stretch, there is strong, compelling research that motorist road rage is less in green areas versus stark areas. Trees and aesthetics, which are known to reduce blood pressure, may contribute to this calming effect. Trees soften and screen necessary street features such as utility poles, light poles and other street furniture. Place properly, they also allow us to navigate by highlighting those elements we should notice, like signs.

Connection to Nature

Urban street trees provide a canopy, root structure and setting for important insect and bacterial life below the surface. At grade, trees allows for pets and romantic people to pause for what pets and romantic people pause for. Trees act as essential lofty environments for song birds, seeds, nuts, squirrels and other town life. Indeed, street trees well establish natural and comfortable life and our favorite streets are usually those that have a good canopy effect.



Street trees connect us with nature and provide places to relax

Encourage Safe Routes to School

Safe Routes to School programs make it safer for students to walk and bicycle to school. A Safe Routes to School program will address the 5 E's: Evaluation, Education, Engineering, Encouragement and Enforcement. Other benefits might include:

- The development of walking school buses for students, with adult “bus drivers” keeping an eye on neighborhood children as they walk or bicycle to and from school.
- Classroom and active learning lessons which focus on basic pedestrian, bicycle, and motor-vehicle occupant safety and encourage children to walk and ride bicycles as a regular form of transportation.
- School trip management techniques to encourage parents, students and staff to reduce automobile trips and to use alternative modes for travel to and from schools. This can support community livability objectives including multiple transportation choices, accessibility, walkability, affordability, community interaction and reduced traffic on local streets.

Successful Safe Routes to School programs ensure that local committees have members with experience in the areas of health, engineering, education, disadvantaged communities, law enforcement, planning and recreation.

A great way to encourage Safe Routes to School is to participate in the International Walk to School

Day. This is a global event where communities from over 40 countries walk and bike to school on a single day. You can join families, schools and communities around the globe as they walk and bicycle to school in celebration of Walk to School Day every October. Learn more about the day, who is participating in your area, and register for this year's event at <http://www.walktoschool.org>.

Resources

Sample Safe Routes to School Programs from the Safe Routes to School National Partnership at <http://www.saferoutespartnership.org/local/4233>

Parent surveys about walking and biking to school at <http://www.saferoutesinfo.org/program-tools/evaluation-parent-survey>

Safe Routes to School Local Policy Guide at http://www.saferoutespartnership.org/media/file/Local_Policy_Guide_2011.pdf



In 1969, 89 percent of K-8 grade students who lived within one mile of school usually walked or bicycled to school. By 2009, only 35 percent of K-8 grade students who lived within a mile of school usually walked or bicycled to school even once a week.

Continue Safe Routes to School projects to improve safety for students. This may include the following activities:

- Apply for Safe Routes funds and work with agencies, governments, organizations, residents, students, the School Board and others to encourage active transportation for students.
- Encourage the development of walking school buses for students and encourage seniors to provide local support and on-going review of existing conditions, in addition to placing “eyes on children” as they walk or bicycle to and from school.
- Implement both classroom and active/hands-on learning. Lessons should focus on basic pedestrian, bicycle, and motor-vehicle occupant safety and encourage children to walk and ride bicycles as a regular means of transportation.
- Identify school trip management techniques to encourage parents, students, and staff to reduce automobile trips and to use alternative modes for travel to and from schools. This can support community livability objectives including transportation choice, accessibility, walkability, affordability, community interaction, and reduced traffic on local streets.

- Ensure that local Safe Routes committees have members with experience in the areas of health, engineering, education, disadvantaged communities, law enforcement, planning, and recreation.
- Assist Safe Routes grantees prepare before and after surveys to capture desired outcomes and metrics for project success.
- Publicize local resources and website content addressing Safe Routes.
- Identify low-income areas and schools to improve participation in Safe Routes programs. Conduct an outreach campaign to ensure communities are aware of Safe Routes opportunities and available technical assistance in the application process.
- Create culturally sensitive materials that highlight Safe Routes opportunities.

Sample Safe Routes to Schools Programs from the Safe Routes to School National Partnership are found here: <http://www.saferoutespartnership.org/local/4233>.

Parent surveys about walking and biking to school from the National Center for Safe Routes to School are here: http://www.saferoutesinfo.org/resources/collateral/Parent_Survey_English_Scan2009.pdf.

Additionally, in June 2011, The Safe Routes to School National Partnership released in a publication entitled Safe Routes to School Local Policy Guide to help local communities and schools create, enact and implement policies which will support active and healthy community environments that encourage safe walking and bicycling and physical activity by children through a “Health in All Policies” approach. See: http://www.saferoutespartnership.org/media/file/Local_Policy_Guide_2011.pdf.

TOOL: Safe Routes Strategies

Streets/Parking

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 angled parking is the safest and most efficient on-street parking. Head-in angled parking and parallel parking also can be good options. On-site parking may not be avoidable, but can be minimized.



This Complete Street in Santa Barbara, CA works for bicyclists, pedestrians, transit, delivery and motorists

Crossings



Median islands don't need to be massive. This well-scaled example in Marin County, CA, provides a refuge for pedestrians

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 increases. 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.

Drop-off/Pick-up

With high rates of students arriving and leaving school in cars, there are many “conflict points” between 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 parking options, such as a church parking lot, can help. Signs ask parents to turn off their engines, which helps reduce vehicle emissions and protect children’s lungs.



Teachers and parents assist elementary students by directing traffic and assisting students into vehicles

TOOL: Safe Routes Strategies

Security

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 bicycling. 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 is highly visible and sheltered from the elements.



In too many communities, well-placed schools are boarded up for larger, new school buildings outside of town. This practice grows traffic and discourages safe routes.

Access



Trails should connect students from streets to schools to keep students from entering/exiting vehicular traffic.

Students should have easy access to the campus from each direction of approach. Adjoining properties shouldn't be walled off from the school or from the routes to school. Pedestrian and cycling students should be able to use links that shorten trip distances and disperse the traffic for pick-up and drop-off around school.

Separation

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 design 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 and yield to students.



This school provides an area for busses which is separate from all other traffic

TOOL: Safe Routes Strategies

Shared Parks

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, providing the highest level of conservation and sustainability.



Shared parks between schools and the community create watched over spaces where children can play

Intersections



Students in Hamburg, NY utilize a splitter island near a roundabout on US62. Channelizing travel lanes provides a refuge for pedestrians and makes crossing easier.

Intersections near schools should be designed to keep motorists' speeds under control – typically no higher than 15 to 20 mph – no matter what time of day. Turning speeds are especially important and can be controlled with mini-circles, roundabouts and raised intersections. Curb extensions (also called “bulb outs”) and inset parking help motorists to see pedestrians and pedestrians to see motorists. They also reduce crossing distance time and exposure, and they slow motorists on all turns.

Sidewalks

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 priority 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 planter strips, tree wells, hydrants, benches, etc. Where appropriate, on-street parking or bike lanes provide an additional buffer to the sidewalk.



Sidewalks around schools should be wide enough to accommodate parents and children walking side by side

TOOL: Learning 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.

A Child’s Imagination is a Powerful Tool

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 prepare a school report on walkability in Underhill Flats, VT.

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



TOOL: Learning from Elders and Children



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



Getting it right

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.

Respect Privacy and Parents' Wishes. Plan in advance and ensure that any necessary permission forms are obtained. Understand and respect parents' wishes to protect their family's privacy.

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.

Protect Place

Place-Based Planning

Place-based planning shifts the focus of all planning and investment decisions away from individual projects and towards a more holistic approach to solving mobility and community design issues. A focus on “place” creates a dialogue to which everyone can contribute, as opposed to a discipline-driven processes that can be both complex and intimidating. A focus on place unites disciplines and residents alike to partner together to achieve shared goals. By bringing many disciplines together, place-based planning produces solutions that collectively solve multiple problems with greater results at lower costs. The goal is to restore confidence and create pride in community and neighborhoods. Most importantly, place-based planning allows a community to maintain its identity while confirming a unified vision.

How it Works

Place-based planning allows everyone to contribute. It involves residents and stakeholders working side by side with subject matter experts. Since placemaking engages the local stakeholders in identifying their values, their sense of important places and their ideas on how to evolve key concepts, it steers future growth from formulaic growth that tends to erode a community’s sense of place. Place-based planning helps communities protect who they are and use future growth to reinforce their vision.

Placemaking is a resident-driven planning process where the community is the expert in defining the vision. Subject matter experts use their skills to facilitate the planning and design processes. A richer, more livable plan results since it goes beyond modern smart growth planning. In this way, grassroots input informs the experts on what the town wants to become, instead of the experts informing the town on what they should become.

The Power of 10

Place-based planning begins with the Power of 10 – a tool through which stakeholders assess the assets and under-performing places within the core area. Utilizing a combination of presentations, small group work sessions, mapping exercises, and group conversation, workshops lead to a plan that stakeholders support. During the process, stakeholders identify the best, worst, and highest opportunity places. Then, they think through how to create substantive physical and social connections between existing spaces, the strategic creation of new places, and how energy can be generated by creating a network of destinations.



Place-based planning engages the entire community in identifying assets and under-performing places.

TOOL: The Power of 10

Placemaking is:

- Community-driven
- Visionary
- Function before form
- Adaptable
- Inclusive
- Focused on creating destinations
- Flexible
- Culturally aware
- Ever changing
- Multi-disciplinary
- Transformative
- Context-sensitive
- Inspiring
- Collaborative
- Sociable



Above: Community members in Charlotte County know their community best.

The Power of 10 is a concept that Project for Public Spaces (PPS) uses to initiate place-based planning. A community needs a number of great places in order to enliven it. The Power of 10 offers an easy framework that motivates residents and stakeholders in how to revitalize central villages. It shows that by starting efforts at the smallest scale, a community can accomplish big things. The concept also provides something tangible to strive for and helps communities visualize what it takes to thrive. At the heart of the Power of 10 is the idea that any great place needs to offer at least 10 things to do or 10 reasons to be there. This could include a place to sit, playgrounds, art, music, food, historical or cultural experiences, and people to meet. Building on the Power of 10, the community moves into a deep place-based planning process that draws on multiple talents across many disciplines in order to plan and design to the community vision. Learn more at: www.pps.org



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TOOL: Digital Storytelling

When describing concerns about the built environment, a lot can get lost in translation. It is difficult to describe with words the significance of a missing sidewalk, or the danger of vehicle speeds.

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



Carry your camera everywhere because you never know when the perfect picture to document a problem will emerge, such as above. Avoid staging pictures. Be authentic, below.

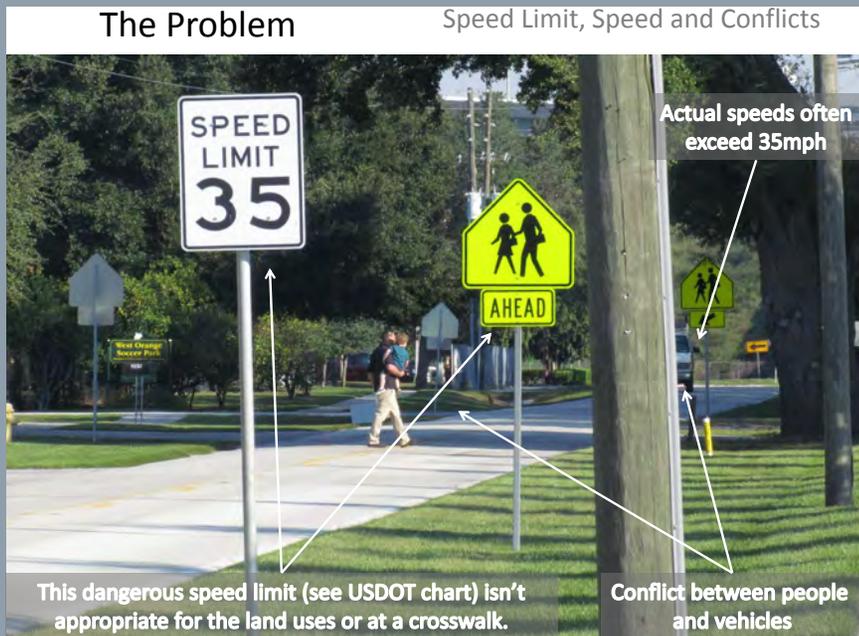


TOOL: Digital Storytelling

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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.



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.
 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.

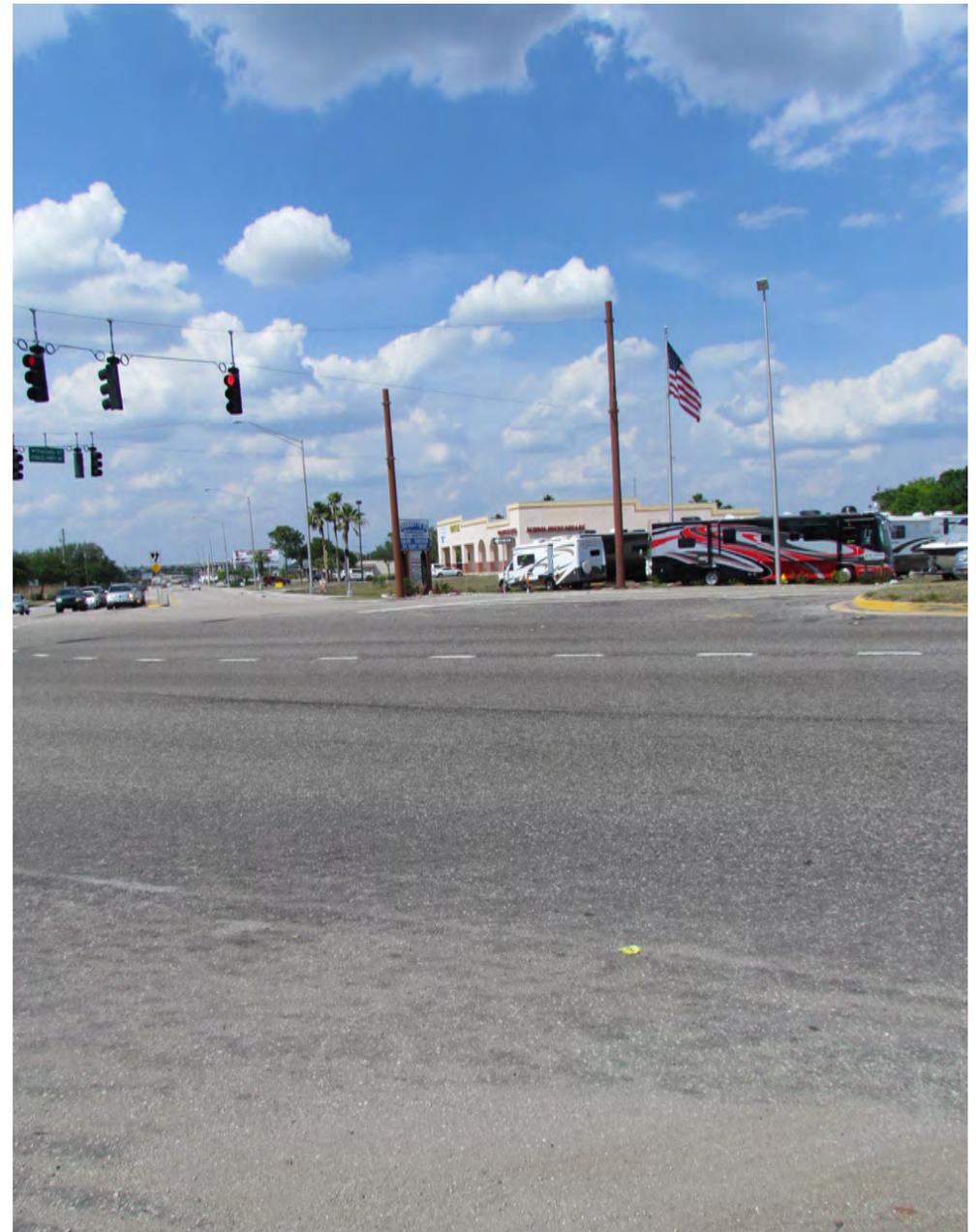
Support Livable Communities

An educational and awareness campaign can take the guesswork out of planning and designing our streets. Sharing information with others on the effects of the built environment on public health, economic vitality, happiness, well-being, and sustainability is a good first step.

Ultimately, the community needs to decide if it is building to an authentic vision and healthy future.

This section contains the following tools:

- TOOL: Street Design Guidelines for Livability
- TOOL: Working Effectively With Others
- TOOL: Active Living Fact Sheet
- TOOL: Effecting Change - The 100 Day Challenge



Is this the legacy we want to leave to our children?

TOOL: Street Design Guidelines for Livability

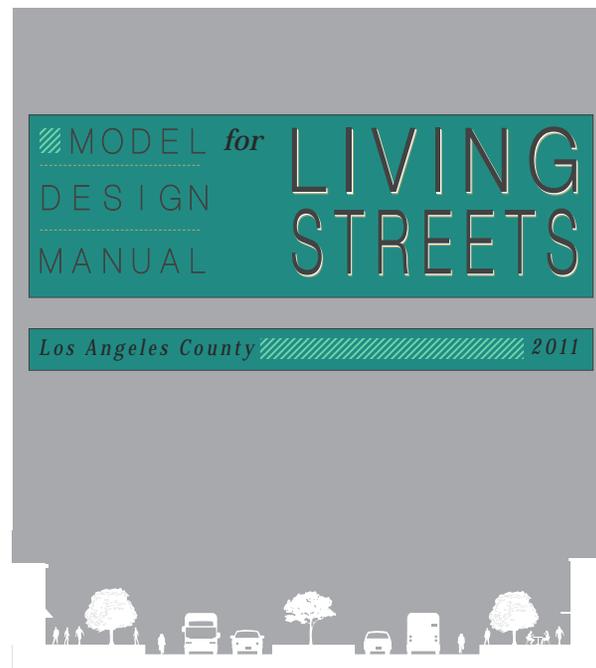
Streets play a significant role in livability. The design of streets impacts access, choice of travel mode, safety, comfort, health, identity, retail success, economic vitality and community quality of life. Faced with the challenges of meeting transportation demand while preserving the character of the community, municipalities are creating and adopting Street Design Guidelines. This is also a great next step once a Complete Streets policy is in place. Livable Street Design Guidelines move communities away from an approach to street design that only considers traffic volume. Street Design Guidelines set forth street standards and provide guidance as you are designing new streets or improving existing streets. These guidelines provide new metrics for measuring the success of a street. The Street Design Guide provides an assessment of local street typologies and highlights traffic calming features that have a history of success locally.

When crafting Street Design Guidelines, communities should look to the following documents to ensure that their guidelines fall within acceptable standards:

- Policy on Geometric Design of Highways and Streets, known as “The Green Book,” by the American Association of State Highway Transportation Officials (AASHTO)
- Traditional Neighborhood Development Street Design Guidelines, by the Institute of Transportation Engineers (ITE)

- The Manual on Uniform Traffic Control Devices (MUTCD) by the FHWA

It is important to note that virtually all of the values needed to build healthy, safe and working streets are found in these guides. Meanwhile, too many communities and practitioners have adopted practices that are high in the speed and efficiency range, and low in the safety and community building range. For this reason, there are many new guides that better inform and instruct practitioners and the public on how to build roads that work for all uses, including land use, sustainable practices, economics and the retail and social life of communities.



Resources

Los Angeles County Model Design Manual for Living Streets, 2011 at <http://www.modelstreetdesignmanual.com/>
Smart Transportation Guidebook by New Jersey/PennDOT, 2008 at <http://www.smart-transportation.com/guidebook.html>



Our goal should be streets that work for everyone.

TOOL: Working Effectively With Others

Dealing with Challenges

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?"



Government staff should continue engaging the community.

Behaviors that Block Progress

- 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
- Attention- or sympathy- seeking 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 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

TOOL: Active Living Fact Sheet

Obesity and Disease

- The costs of obesity account for approximately nine percent of total U.S. health care spending.
- The total economic cost of obesity is \$270 billion per year.
- Two out of three American adults 20 years and older are overweight or obese.
- It is estimated that 75 percent of American adults will be overweight or obese by 2015.
- Childhood obesity has more than tripled in the past 30 years.
- In 2010, 10.9 million or nearly 27 percent of U.S. residents age 65 or older had diabetes.
- About 1.9 million people age 20 years or older were newly diagnosed with diabetes in 2010. Diabetes is the seventh leading cause of death in the United States.

2010 State Obesity Rates

State	%	State	%	State	%	State	%
Alabama	32.2	Illinois	28.2	Montana	23.0	Rhode Island	25.5
Alaska	24.5	Indiana	29.6	Nebraska	26.9	South Carolina	31.5
Arizona	24.3	Iowa	28.4	Nevada	22.4	South Dakota	27.3
Arkansas	30.1	Kansas	29.4	New Hampshire	25.0	Tennessee	30.8
California	24.0	Kentucky	31.3	New Jersey	23.8	Texas	31.0
Colorado	21.0	Louisiana	31.0	New Mexico	25.1	Utah	22.5
Connecticut	22.5	Maine	26.8	New York	23.9	Vermont	23.2
Delaware	28.0	Maryland	27.1	North Carolina	27.8	Virginia	26.0
District of Columbia	22.2	Massachusetts	23.0	North Dakota	27.2	Washington	25.5
Florida	26.6	Michigan	30.9	Ohio	29.2	West Virginia	32.5
Georgia	29.6	Minnesota	24.8	Oklahoma	30.4	Wisconsin	26.3
Hawaii	22.7	Mississippi	34.0	Oregon	26.8	Wyoming	25.1
Idaho	26.5	Missouri	30.5	Pennsylvania	28.6		

Air Quality

- Asthma is a major public health problem in the United States with 22 million people currently diagnosed with asthma—12 million of whom have had an asthma attack in the past year.
- Seven percent of adults and nearly nine percent of all children have asthma. In poor and minority communities, the rates are higher.
- People living within 300 meters of major highways are more likely to have asthma, leukemia and cardiovascular disease.
- The health costs associated with poor air quality from the U.S. transportation sector is estimated at \$50–\$80 billion per year.



Environments like this one in Charlotte County discourage active living and contribute to environmental degradation

TOOL: Active Living Fact Sheet

Safety

- In 2009, 33,963 people were killed in traffic-related incidents in the U.S.
- Between 2000 and 2009, 47,700 pedestrians were killed by automobiles.
- Although people age 65 and older made up less than 13 percent of the total U.S. population between 2000 and 2007, they represented nearly 22 percent of pedestrian deaths during that period. (Source: <http://t4america.org/docs/dbd2011/Dangerous-by-Design-2011.pdf>)
- The oldest pedestrians (75 years and older) suffered from pedestrian fatality rates of 3.61 per 100,000 people, a rate well more than twice that for people under 65 years of age.

Mental Health

- Americans spend an average of 100 hours per year commuting.
- Higher rates of physical activity are associated with reduced risk of depression, while physical inactivity is a known risk factor for depression.
- Since 2000, antidepressants have become the most prescribed medication in the United States.

The goal in focusing on walkable communities is for enough people to be walking and biking that safety issues for all people are addressed.

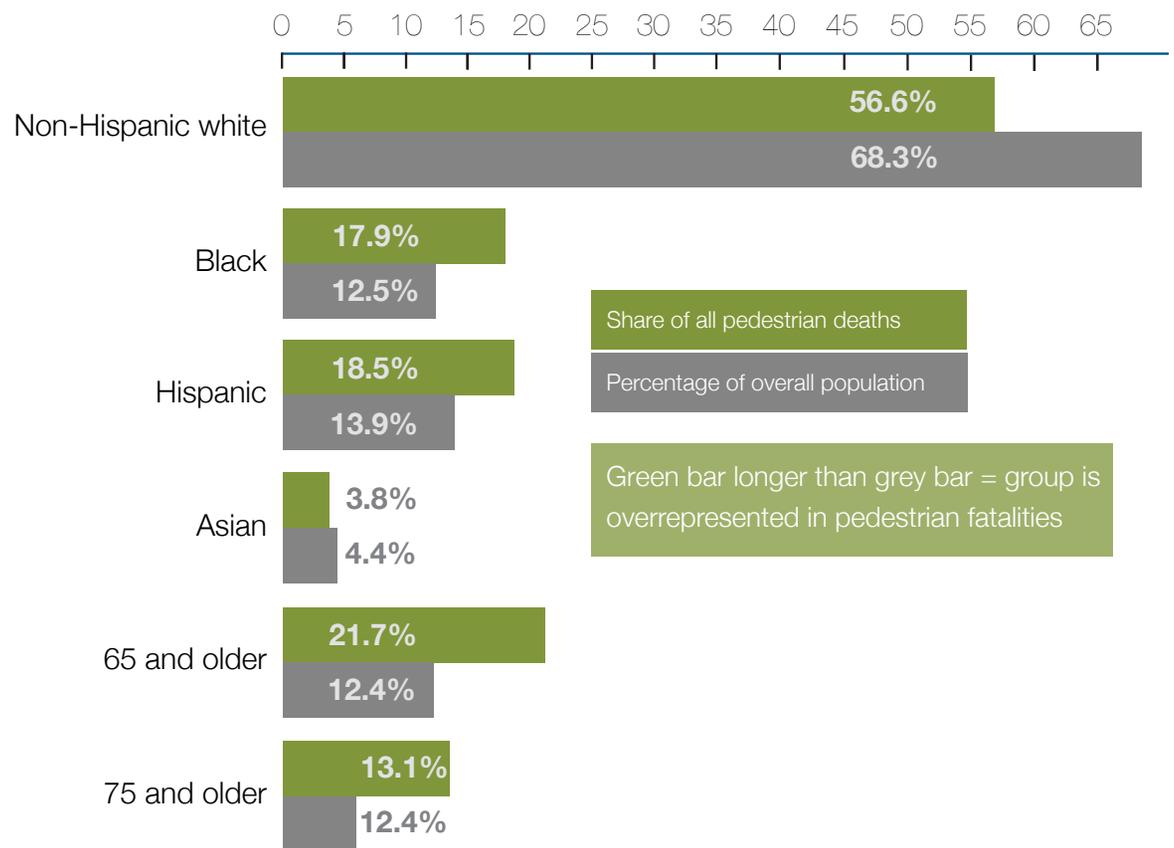


TOOL: Active Living Fact Sheet

Social Equity

- Older populations are over-represented in intersection fatalities by a factor of more than two-to-one.
- Half of all non-drivers age 65 and over—four million Americans—stay at home on a given day because they lack transportation.
- By 2015, more than 15.5 million Americans age 65 and older will live in communities where public transportation options are minimal or nonexistent.
- Transportation is the second largest expense for American households, costing more than food, clothing and health care. Americans spend an average of 18 cents of every dollar on transportation, with the poorest one-fifth of families spending more than double that figure.

Percentage of pedestrian deaths compared to share of population



Source: <http://t4america.org/docs/dbd2011/Dangerous-by-Design-2011.pdf>

TOOL: Effecting Change - The 100 Day Challenge

Setting goals to show early results

How Does Change Happen?

A project is more likely to succeed if motivated individuals set a course to accomplish their goals immediately. Early successes provide the hand-and-toe-holds needed to pull the group from one achievement to the next.

The 100-Day Challenge sets goals that can be accomplished within 100 days to show a genuine commitment to active living. All change begins by asking one question: What can I do? Each of us shapes the built environment we find ourselves in, either through active participation in decision making, or by leaving decisions up to others.

Quality of life is directly affected by the quality of the built environment, especially the completeness of our transportation systems. Streets are attractive and safe for all users, or they are not. Streets encourage a variety of transportation options, including walking and bicycling, or they limit choices. And your community either encourages aging in place or contributes to social isolation.

- You recognize that what you are doing is not working
- You form a group to generate ideas, build support and learn
- The group sets a vision and the mission, goals and tasks to support this vision
- You share this vision with others, along with the specific goals and tasks that guide activities
- You do something and you encourage others to do something
- You share your successes with others and this motivates them
- Encouraged that change is possible, others join the group in moving the movement
- You refine your mission, goals and tasks to keep them current

In his book *Leading Change*, Professor John Kotter identifies eight steps for effecting change, provided on the following page.

The Significance of 100 Days

Focusing on a 100-day action plan allows you to accomplish the following:

- Identify critical concerns and prioritize them
- Motivate others with reasonable goals and tasks
- Ensure that milestones are met
- Keep the group motivated
- Build confidence with early wins
- Confirm that you are working with the right people
- Build on successes
- Schedule review and refinement of mission, goals and tasks

TOOL: Effecting Change - The 100-Day Challenge

The following conditions help determine an active living project's success:

- Leadership: Leaders who inspire collaboration to identify and accomplish goals.
- Motivated Teammates: Individuals with a can-do spirit who are eager to work together.
- Actionable Strategies: Identification of the tasks in support of a goal, with individuals to take on specific tasks and a time frame for completion;
- Early Successes: Projects that allow for immediate successes to keep the group motivated and to build confidence.

Eight-Step Process for Leading Change	
Step 1:	Establishing a Sense of Urgency Identify and discuss crises, potential crises or major opportunities
Step 2:	Creating the Guiding Coalition Assemble a group with enough power to lead the change effort Encourage the group to work as a team
Step 3:	Developing a Change Vision Create a vision to help direct the change effort Develop strategies for achieving that vision
Step 4:	Communicating the Vision Use every vehicle possible to communicate the new vision and strategies Teach new behaviors by the example of the Guiding Coalition
Step 5:	Empowering Broad-based Action Remove obstacles to change Change systems or structures that seriously undermine the vision Encourage the risk-taking and nontraditional ideas, activities, and actions
Step 6:	Generating Short-term Wins Plan for visible performance improvements Create those improvements Recognize and reward [those] involved in the improvements
Step 7:	Never Letting Up Use increased credibility to change systems, structures and policies that don't fit the vision Hire, promote, and develop [those] who can implement the vision Reinvigorate the process with new projects, themes, and change agents
Step 8:	Incorporating Changes into the Culture Articulate the connections between new behaviors and organizational success Develop the means to ensure leadership development and succession

Source: *Leading Change* by John Kotter, Harvard University Business School, www.kotterinternational.com

Road Diet Fact Sheet

The Walkable and Livable Communities Institute

June 2012

1. Research Method

In 1999, Dan Burden and Peter Lagerwey coined the term “road diet” to explain road conversion measures to right-size travel lanes and to remove excess lanes from streets. In their ground-breaking article, titled *Road Diets: Fixing the Big Roads*, Burden and Lagerwey noted the dangers of the four lane undivided highway: speeding, unpredictable behaviors, rear-end and side-swipe collisions, increased severity of injuries from collisions, blind spots, and an environment that discourages active transportation (Burden, 1999). Since 1999, numerous studies on the effects of road diets to create safer and more efficient streets have been undertaken. This fact sheet includes a survey of on-line studies and literature related to road diets, which are referenced in the Works Cited page. In addition, Dan Burden provided a peer review of this fact sheet. The project team contacted Peter Lagerwey for updated materials on road diet performance and learned that while no current study exists, Mr. Lagerwey is conducting a comprehensive study on the performance of road diets in 2012-2013. Additionally, the project team contacted Dr. Carol H. Tan, Team Leader of Safety Management for the Office of Safety Research and Development of the U.S. Department of Transportation Federal Highway Administration (FHWA), to learn whether additional data on road diet performance exists. Dr. Tan confirmed that the project team was utilizing current findings and noted that in 2012, the FHWA issued a technical memorandum with nine proven countermeasures to improve roadway safety; road diets were on this list.

2. Introduction: What is a Road Diet?

Our transportation systems are largely based on an over-reliance on vehicular traffic and this has created an imbalance where walking and bicycling are challenging and unnatural activities. A road diet involves converting an undivided four lane roadway into three lanes made up of two through lanes and a center two-way left turn lane. The reduction of lanes allows the roadway to be reallocated for other uses such as bike lanes, pedestrian crossing islands, buffered sidewalks, and/or parking. Road diets have multiple safety and operational benefits for all road users:

- Decreasing vehicle travel lanes for pedestrians to cross, therefore reducing the multiple-threat collision. This is when one vehicle stops for a pedestrian in a travel lane on a multi-lane road, but the motorist in the next lane does not, resulting in a collision for pedestrians.
- Improving safety for bicyclists when bike lanes are added, also creating a buffer space between pedestrians and vehicles,
- Providing the opportunity for on-street parking, which also serves to buffer pedestrians and vehicles,
- Reducing rear-end and side-swipe collisions, and
- Improving speed limit compliance and decreasing collision severity when collisions do occur (Tan, 2011).

3. Road Diets: How Do They Work

A road diet involves converting an undivided four-lane road into three vehicle lanes—one in each direction and a center turn lane. The remaining space is used for bike lanes, transit-stop bays, sidewalks or on-street parking. The two way center turn lane can include a median or pedestrian refuge island in certain locations. A road diet can improve the performance and safety of the corridor and encourage active transportation.

Road diets, also called ‘right-sizing’ of roads, reallocates existing public right of way. When excess lanes are removed and lane widths are narrowed to 10 – 12 feet, the existing right of way can be allocated to support all modes. Because drivers base their travel speed on what feels comfortable given the street design, lane width reductions and the removal of excess travel lanes has an effect both on speeds and collision rates, since collisions tend to augment with speeds. In general, the wider the road in front of us, the faster we tend to drive. The faster a car is going, the more severe the injuries in the event of a collision.

Determining the number of travel lanes needed is based on the functional classification of a street and the desired level of service. Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the character of traffic service that they provide. There are three functional classifications: arterial, collector, and local roads. All streets and highways are grouped into one of these classes, depending on the character of the traffic and the degree of land access that they allow.

<i>Functional System</i>	<i>Services Provided</i>
Arterial	Provides the greatest speed for the longest uninterrupted distance, with some degree of access control.
Collector	Provides a level of service at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials.
Local	Consists of all roads not defined as arterials or collectors; primarily provides access to land with little or no through movement (AASHTO, 1995).

The number of lanes and intersection treatments are determined by the concept of acceptable peak-hour level of service. Level of service is a grading system for the amount of congestion, using the letter A to represent the least amount of congestion and F to refer to the greatest amount. A brief description of the operating characteristics associated with each level of service follows:

Level of Service Description

- A Free flow with low volumes and high speeds.
- B Reasonably free flow, but speeds beginning to be restricted by traffic conditions.
- C In stable flow zone, but most drivers are restricted in the freedom to select their own speeds.
- D Approaching unstable flow; drivers have little freedom to select their own speeds.
- E Unstable flow; may be short stoppages
- F Unacceptable congestion; stop-and-go; forced flow (AASHTO, 1995).

Reconfiguring a roadway for lane reductions depends on the current configuration, user needs, desired operational and safety outcomes. The majority of four-lane roadways were built or widened to accommodate peak vehicle traffic volumes, but for the remaining 22 hours each day, they are underutilized. On these four-lane roads with excess capacity, motorists notice that there are empty

lanes in their direction. Speeds are often higher than the posted speed limit and dangerous conditions are created when cars stop in travel lanes waiting to turn left or right and a last-minute lane change by another motorist hoping to preserve momentum, creates a serious rear-end collision. Four-lane undivided highways also have blind spots created by multiple lanes of traffic.

In a study of design factors that affect driver speed on suburban arterials, lane width reductions correlated with 3.05 km/h reduction from a 12-foot lane to an 11-foot lane and 10.62 km/h reduction from a 12-foot lane to a 10-foot lane (Transportation Research Board, 1994). Wider lanes encourage faster driving. Wide roads also pose problems for pedestrians. The wider a roadway, the further a pedestrian has to cross, and the longer the pedestrian is exposed to the threat of a collision. Research suggests that the number of injury collisions can increase significantly—by as much as 485 percent—with additional vehicle travel lanes on residential streets (Peter Swift, 2006).

Additionally, 4-lane undivided highways are particularly dangerous to pedestrians because of the potential for multiple-threat crashes, in which one vehicle stops and screens the pedestrian, while another motorist continues on in the other through lane. The pedestrian and motorist cannot see each other, but because the motorist in one lane has stopped to allow the crossing, it does not necessarily mean that the motorist in the next lane can see the pedestrian or will respond in the same way.

Given these concerns, many communities throughout North America are putting their roads on diets. That is, they are removing unnecessary lanes from streets and reallocating the space to accommodate other forms of transportation, such as walking and biking. In a study on evaluating road diets and their effects on crashes and injuries, researchers found through a Cochran-Mantel-Haenszel test, on average, crash frequencies at road diets in the “after” period were approximately 6 percent lower than at the corresponding comparison sites (Huang, 2004).

After a road diet, one vehicle travel lane in each direction allows a prudent driver to set the prevailing speed for all cars following them. On-street parking and comfortably wide bike lanes create buffers of two kinds—both between motorists and the edge of the road, and between pedestrians and moving traffic. A road diet allows for the construction of a complete street that provides safe and equal access for users of all ages and abilities.

4. Road Diets: Where Do They Work?

Traffic Volumes

Road diets have been successfully implemented on streets carrying a wide variety of average daily traffic (ADT) volumes. Ranges from 8,000 to 15,000 are generally considered to be good candidates for road diets (Tan, 2011). Four-lane undivided roadways with an ADT between 8,400 and 24,000, and a relatively wide range of traffic flow, have been successfully converted to three-lane cross sections in many areas of the United States and Iowa (Knapp, 2007). Roads that carry between 800 and 2,400 vehicles per hour may be good candidates for a road diet.

Missing Infrastructure to Support All Modes

If a roadway does not provide sufficient infrastructure for alternative forms of transportation, a road diet may create the extra space needed to provide or improve infrastructure for cyclists, pedestrians, or transit riders. Bicycle infrastructure should be considered if bike lanes are missing or too narrow, especially if the corridor is a popular or essential bicycle route. If sidewalks are too narrow or if they are missing on one or both sides of the street, a road diet allows for improvement. Otherwise, the street

Benefits of Road Diets

- Road diets reduce vehicle speeds by 5-8 km/h (Knapp, 2003).
- Road diets reduce the number of vehicles traveling more than 8 km/h over the posted speed limit by 70 percent (Knapp, 2007).
- Overall collisions were reduced by 17-62 percent post road diet, an extremely high reduction rate for a single traffic calming tool (Knapp, 2007).
- Where crashes do still occur post road-diet, involvement of at-risk age groups—under 25 or over 65 years of age—is reduced (Stout, 2006).
- A 2001 study found a reduction in pedestrian crash risk when crossing two- and three-lane roads compared to roads with four or more lanes (Zegeer, 2001).
- Speed matters: hit by a vehicle traveling 64.36 km/h, a pedestrian has an 85 percent chance of death or incapacitating injury. At 32.2 km/h, a pedestrian has a 5 percent chance of death or incapacitating injury (Kidd, 2011).

remains incomplete. Pedestrian crossings can be improved with a road diet, as well. A road diet should be considered if pedestrians have difficulty finding gaps in four-lane traffic to cross the roadway. Bus, trolley, or other transit service along a corridor can also make it a good candidate for a road diet.

Surrounding Land Uses

Roadways in areas with surrounding land uses that attract pedestrians, cyclists, visitors, and residents are also good road diet candidates. These can include historic streets, scenic drives, main streets, schools, or roads in an entertainment district. Four lane undivided highways often encourage drive-thru behaviors for motorists, rather than the desire to stop, park or spend time in the area.

Other Considerations

Road diets may also be considered if the following conditions exist:

- A high number of left-turning movements
- Roads with safety issues or high crash rates
- Availability of transit
- Proximity to schools
- The road diet features will integrate with adjacent roadway segments
- Support of the community is in place

Because a complete street can be provided within the existing right of way after removing or narrowing vehicle travel lanes, road diets are less expensive than widening roads, have fewer negative impacts on adjacent properties, and interrupt traffic for less time during the conversion than a road widening project would (Center for Transportation Research and Education, 2001).

5. Road Diet Case Studies

Edgewater Drive, Orlando, FL

In 2000, a road diet was used on a 2.4 kilometer section of Edgewater Drive in the College Park neighborhood of Orlando, Florida. Over a four month period following conversion, the results were as follows:

- 34-percent collision reduction—from one every 2.5 days to one every 4.2 days
- 68-percent reduction in injuries per million vehicle miles traveled
- 8- to 10-percent speed reduction
- Corridor travel times at peak periods increased by 25 seconds
- Traffic volume for all modes increased
- Pedestrian volumes increased by 23 percent, with a 56-percent increase in pedestrian traffic moving across Edgewater Drive

- Bicycle traffic increased by 30 percent, with a 48-percent increase in bicyclists moving across Edgewater Drive
- On-street parking utilization increased from 29 percent to 41 percent
- Improved retail sales post intervention

El Cajon, San Diego County, CA

El Cajon in San Diego County, CA underwent a road diet and the results are as follows:

- Property values increased by 181 percent compared to 75 percent in the city at large
- Taxable sales in the downtown increased by 66 percent compared to 45 percent in the city at large
- Revenue from the Transient Occupancy Tax (hotel tax) has increased by 36 percent
- Lease rates have increased by 56 percent
- Today, 91 percent more customers shop and dine in downtown than did in 2002

Fourth Plain Boulevard, Vancouver, WA

- 17,000 ADT
- 52 percent reduction in collisions
- 18 percent reduction in speed
- No traffic diversion into surrounding neighborhoods

Baxter Street, Athens, GA

- 20,000 ADT
- 53-60 percent reduction in collisions
- Reduction in speed

6. Key Findings on Road Diets

A Highway Safety Information System (HSIS) research project analyzed data from California, Iowa, and Washington State road diets safety evaluations. Their study, summarized by the FHWA in *Evaluation of Lane Reduction "Road Diet" Measures on Collisions (FHWA-HRT-10-053)*, measured collision reductions of 47 percent on predominantly U.S. and State routes in small urban areas (average population: 17,000) and 19 percent on corridors in suburban areas surrounding larger cities (average population: 269,000) (Tan, 2011). Safety data indicates that three-lane roadways have lower collision rates than four-lane undivided roadways in medium and high-density residential and commercial land use areas. In addition, unlike the two-lane and four-lane undivided roadways, the collision rates of three-lane roadways do not seem to increase with development density (Knapp, 2003).

Using a comparison of treated and matched comparison sites before and after treatment and the development of negative binomial regression models, an earlier HSIS study found a 6 percent reduction in crash frequency per mile and no significant change in crash rates at the California and Washington sites. Using a long-term (23-year) crash history for treated and referenced sites and the development of a hierarchical Poisson model in a Bayesian approach, a later Iowa study found a 25.2 percent reduction in crash frequency per mile and an 18.8 percent reduction in crash rate (Tan, 2011).

Data from Minnesota indicates that three-lane roadways have a collision rate 27 percent lower than the rates for four-lane undivided roadways. Researchers found that the monthly collision frequency decreased 2 to 42 percent after conversion from a four-lane undivided to three-lane cross section

(Huang, 2004). Collision severity also decreased, but the changes in collision type (between adjusted and comparable non-adjusted sites) were found to be similar. Related research has shown that the addition of a two way left turn lane can be expected to decrease collision rates by 10 to 40 percent. The expected increase in safety that results from a four-lane undivided to three-lane cross section conversion may primarily be the result of a reduction in speed and speed variability along the roadway, a decrease in the number of conflict points between vehicles, and improved sight distance for the major-street left-turn vehicles.

Road diets results in Iowa indicate a 25.2 percent reduction in collision frequency per kilometer and an 18.8 percent reduction in collision rates over the 15 treatment sites when compared with the comparison sites (Welch, 2007). Other benefits of road diets include a reduction in traffic noise, traffic speeds, and vehicle-generated air pollution when active transportation becomes more prevalent. One study found that a 5 to 10 mph reduction in traffic speeds increased adjacent residential property values by roughly 20 percent. Another study found that traffic restraints that reduced volumes on residential streets by several hundred cars per day increased home values by an average of 18 percent (Drennen, 2003).

7. Common Concerns about Road Diets

If road diet interventions are to be successful, they need public and political support. Overly wide roads have been the norm in many places, and changes to those norms require capacity- and awareness-building amongst community members, elected officials and municipal leaders.

People have strong emotional connections to their built environments. Accepting that “place attachment” exists and is a notable part of daily life underscores the importance of strong community engagement in projects such as road diets. Further, leaders should anticipate that responses to road diet proposals may be emotional in nature, but those responses should not be dismissed as invalid; rather, they should be addressed as important and valid input by providing clear information in response, and in a respectful and compassionate manner.

Ideally, the public will be involved in the earliest discussions about a road diet. But certainly before one is implemented, an education and awareness campaign is needed. Even during and after implementation, it is important to ensure drivers know they are entering a traffic-calmed area, and explain through signage or markings anything that may be unfamiliar. Drivers are less likely to become frustrated if they understand they are taking part in something for the public good. If possible, consider a ‘pilot project’ first, in an area with low traffic volume, to allow drivers to get comfortable with road diets and allow municipal staff to document what works and what doesn’t work.

The following concerns about proposed road diets might be raised and can be addressed appropriately:

If we go from four lanes down to two, what happens to half the traffic? Won't the road be congested?

In most cases, traffic volumes on streets that reduce the number of travel lanes from four to two show no significant change. Under most average daily traffic (ADT) conditions tested, road diets have minimal effects on vehicle capacity, because left-turning vehicles are moved into a common two-way left-turn lane. However, for road diets with ADTs above approximately 20,000 vehicles, there is a greater likelihood that traffic congestion will increase to the point of diverting traffic to alternate routes (Tan, 2011). Congestion may be lessened on a “road-dieted” street because turning cars can pull into turn pockets, leaving the through-lane clear. There is less jockeying back and forth for position. If the

corridor is a bus route, buses can ease into the bike lane at stops, or dedicated bays, and allow cars to pass them in the through lane. Providing safe and comfortable spaces for walking and biking means some people may choose not to drive, putting fewer cars on the road in the first place.

Surrounding neighborhoods will be plagued by cut-through traffic as drivers speed around the redesigned corridor.

In road diet case studies, traffic diversion off of the study corridor has been a rare occurrence with no significant impacts. Where there is significant neighborhood concern, a plan to implement neighborhood traffic calming measures concurrently with the road diet should be considered.

Access to driveways or side streets will be harder

Turning onto the corridor can actually be easier, because there is only one lane of traffic in each direction to negotiate. If there is a center left-turn lane, drivers turning left can cross one lane of traffic, then wait in the turn lane to merge into a gap in the travel lane. Research on left-turn lanes demonstrates that they reduce rear-end collisions between 60 and 88 percent (Bhagwan et al, 2008).

Emergency response times will be slower

On a four-lane road, when an emergency vehicle approaches, two lanes of cars must merge into one lane and then stop at the curb. After a road diet, the single lane of through traffic simply shifts into the bike lane and stops, allowing the emergency vehicle to pass in the through lane, or to use the center lane.

Investing money in non-motorized transportation is wasteful when the roads are already in need of fixing

Walking and cycling are actually more efficient than driving for short trips, and walking is a component of many vehicle trips as well. When considered in terms of 'effective speed'—the total time spent in travel, including time devoted to working in order to pay for vehicles and fares—non-motorized transport is often far more efficient than motorized transport (Litman, 2010). According to the Political Economy Research Institute (PERI), bicycle projects yield 11.4 jobs per million dollars spent, versus 7.8 jobs created per million spent on road widening projects (Heintz, 2009).

8. Concluding Thoughts

Improving community health is not a matter of telling people to exercise. The message to get daily exercise has been pervasive. In order to improve health, well-being, and safety of our communities, we need to expect more from our transportation systems.

The most recent Economic Burden of Illness in Canada (EBIC) estimates the total cost of obesity at \$4.3 billion (2005 dollars) per year. This includes \$1.8 billion in direct healthcare costs and \$2.5 billion in indirect costs. This figure is suggested to underestimate the overall economic cost of excess weight in Canada as it does not include the costs for those who are overweight, but not obese (Public Health Agency of Canada, 2011). Further, it only includes costs of adult obesity and costs associated with eight chronic diseases. Routine activity through transportation, not just recreation, must be encouraged if we are to combat rates of obesity.

Because road diets are a common tool used in the creation of a complete street, Complete Streets policies can serve as examples of incorporating active transportation into street design and balancing all modes. In order to create healthy, livable communities, a balance must be struck that allows individuals to choose a more active mode of transportation.

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