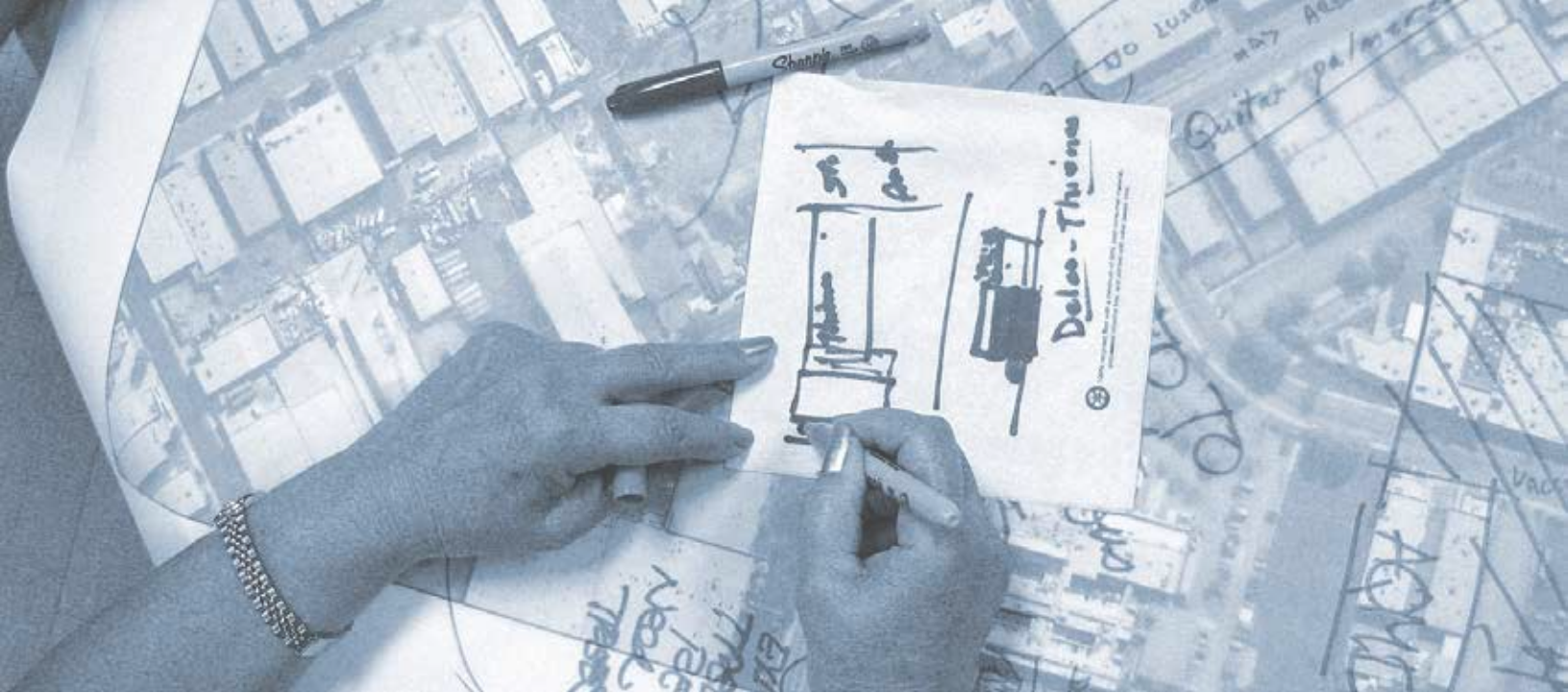# Walkability Workbook

Walkable and Livable Communities Institute

September 2012

Acknowledgements

The following organizations were involved in the creation of this Walkability Workbook:

Executive Summary

The U.S. Environmental Protection Agency developed the *Sustainable Communities Building Blocks* Program to provide tools and resources to communities. The Walkability Workshop provides targeted technical assistance to improve walkability. This workbook is designed to guide participants through delivery of the workshop. The workbook is divided into the following main sections:

1. The Facilitator's Guide – This section highlights activities that will take place before, during and after the workshop. Four PowerPoint Presentations are also included to assist in sharing key concepts during the workshop: 1) Walkability: Making the Case; 2) Walkability: Principles, Deterrents and Treatments; 3) Practicing Assessment; and 4) How To Use the Survey Tool. The facilitator can adapt these presentations by choosing those slides that are most relevant to participants.

2. Notes Section – The notes for the four PowerPoint presentations are included so that the facilitator has resource materials that speak to why walkability matters, the principles of walkability, how to assess the built environment and how to use the survey tool.

3. Walkability Toolbox – The toolbox explains key concepts to advance walkability and provides resources for participants to take next steps.

4. The Walking Audit Survey Tool – The survey tool allows participants to document their observations during a walking audit. An example of a completed survey is also provided.

The Walkability Workshop engages communities in making their streets and neighborhoods more walkable. This workbook will guide participants through the before, during and after activities that ensure a successful and meaningful walkability workshop. Congratulations on taking steps towards improved health, well-being, sustainability and quality of life!

Facilitator's Guide

Walkable and Livable
Communities Institute

Table of Contents

1
Introduction: Walkability Benefits All

Very few people would disagree with the statement that North America has "engineered" activity out of daily life. In transportation and town planning, advanced sciences have been applied to move more cars and to move them faster.

The unfortunate results, in many cases, are streets that accommodate only cars and that actually deter people from using the most basic form of transport – walking – for their errands, to commute to work and school, to stay socially connected, and for their daily exercise. This has contributed to a decline in physical and psychological health, a rise in obesity rates, increased social disconnectedness, more consumption of finite and polluting resources, higher transportation costs, and lower property values.

For many places, auto-centric approaches to land-use and transportation planning have led to sprawl and a loss of identity. In many communities, the built environment prevents residents from aging in place, or being able to stay in their homes for as long as possible, including long after retirement. To counter these effects, we are rethinking how to plan and design communities. Walkable communities have a person, not their automobile, at the center of the design scale. When we design communities around the human foot, we create places that are socially, environmentally and economically vibrant. Simply, a focus on walkable communities addresses much of what ails us and restores the social fabric of the places we love.

Walkability

Active Living

Health

Community

Livability

Quality of Life
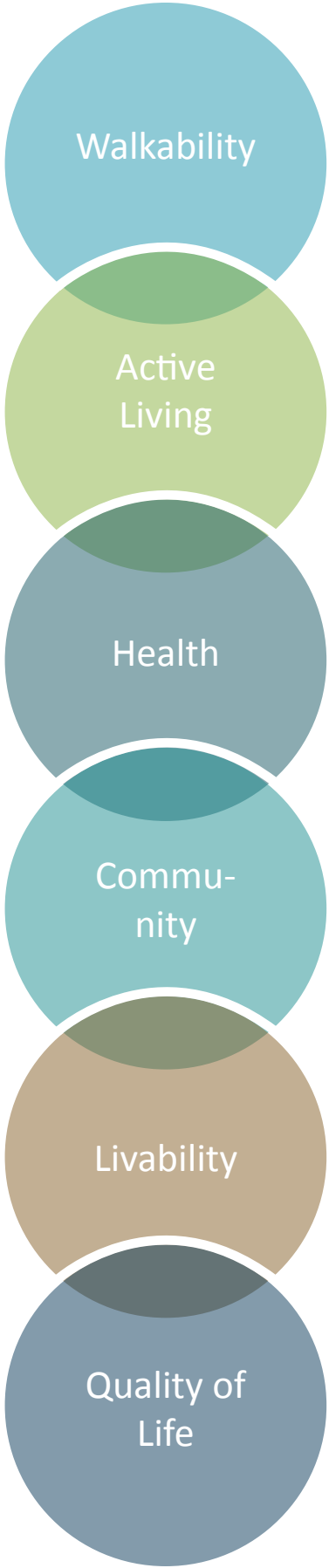
The Walkability Workshop

The Walkability Workshop is a proven, effective tool to assist communities in addressing their built environment to support better-connected, more sustainable places. During the workshop, participants will assess specific areas to identify conditions that affect walkability, connectivity and their ability to meet daily needs. They will document observations and findings through field notes on the walking audit survey tool, which will summarize the assessment and help determine next steps.

This Facilitator's Guide highlights activities that should take place before, during and after the walkability workshop. It outlines all activities for organizing and facilitating your workshop.

The goal of the Walkability Workshop is to engage your community in making your streets and neighborhoods more walkable, livable, healthy and welcoming. Congratulations on taking steps toward improved health, well-being and quality of life!

I think by now it's pretty clear that Americans want the kind of communities that are walkable, that offer a sense of connection to their neighbors...people have been telling me they want more public transportation and walkability with less congestion and sprawl.

-Lisa Jackson, EPA Administrator

2
Getting Started

Allow six weeks of planning to host a successful Walkability Workshop. In rare cases, a workshop can be organized in less time, but attendance often suffers in that case. Also, the effort should not end with the workshop; rather, in order to give the workshop true meaning and create opportunities for positive change, the organizing agency should remain a committed, long-term partner in supporting the community's livability efforts.

The key steps in planning the workshop are:

- Identifying a project coordinator
- Engaging key partners
- Selecting the community and workshop date
- Identifying a route for the walking audit
- Coordinating facilities and logistics
- Collecting planning maps and guiding documents
- Conducting outreach
- Facilitating the workshop
- Organizing and leading the initial efforts of a working group, and
- Continuing to serve as a committed partner post-workshop

The following timeline provides general planning guidance. Each task is discussed in more detail in this guide.

Weeks from Workshop										
	-6	-5	-4	-3	-2	-1	0	+1	+2	++
Getting Started										
Identify project coordinator	▓									
Engage key partners	▓	▓								
Select the community	▓	▓								
Select the date	▓	▓								
Put It All Together										
Identify audit site			▓							
Create event schedule			▓	▓						
Coordinate facilities and logistics				▓						
Secure meeting space				▓	▓					
Secure equipment, supplies			▓	▓	▓	▓	▓			
Arrange for transportation			▓	▓						
Arrange for refreshments/meals			▓	▓						
Collect plans, site maps				▓	▓					
Invitations and Outreach										
Invitations	▓	▓	▓	▓	▓	▓	▓			
Community outreach			▓	▓	▓	▓	▓			
Media outreach	▓	▓	▓	▓	▓	▓	▓			
The Workshop										
Pre-brief							▓			
Registration							▓			
Support							▓			
Organize a working group							▓	▓	▓	▓
Post-event tasks							▓	▓	▓	▓
Channel the Momentum								▓	▓	▓

The Project Coordinator

The first step to ensuring a successful Walkability Workshop is identifying and securing the commitment of a project coordinator. The project coordinator will have the overall responsibility for tasks such as organizing logistics, engaging local partners, conducting outreach, and working directly with the community.

The project coordinator should be able to commit time to organizing the workshop, conducting the workshop, and coordinating activities for the working group until the group gains stability and establishes its leadership.

Select the Study Area

If a specific study area hasn't already been selected, then this is the time to do so. The community or study area can be a single neighborhood, a group of neighborhoods, a school district, a shopping

center, an entire town, a metropolitan area or any geographic or political area that the organizing agency deems appropriate. After the study areas is decided upon, the route for the walkability audit will need to be chosen, as described later in this section.

Consider the following when evaluating candidate study areas and audit routes:

- **Can the local community succeed?** The community should have reasonable chances of creating successful programs or projects as a result of the Walkability Workshop. Some indicators of potential success are the presence of strong local leadership and a clearly expressed desire to be a model project. Additionally, consider places that already have identified a desire for change and need a catalyst or assistance in getting started.

- **Are there local organizations who can be engaged as partners?** The community should have at least one or two organizations that already are advocating for some of the principles that support livability and sustainable communities. Whether a non-profit organization, school district, homeowners' association, government agency or an alliance of resident advocates, the community will have better chances of succeeding if there already are groups on the ground who can be engaged as key local partners.

The Walkability Workshop is primarily an educational and capacity-building tool that helps raise awareness of, and interest in, the multiple benefits of walkability. The selected community should stand to benefit from the tool. If a community already has a robust walkability program underway, this particular tool may no longer be of significant benefit to the effort. However, a smaller pocket of that community may still be in need of walkability programs, and could be a good candidate for the workshop. For example, the city of Portland, Oregon, is one of the most walkable cities in North America. But some areas just outside of Portland - even some neighborhoods within the metropolitan area - have been great candidates for walkability workshops.

If several good candidates emerge, consider facilitating a candid discussion amongst the key local partners.

Engage Key Local Partners
In addition to helping determine if the community is a good candidate for the Walkability Workshop, key local partner organizations should be engaged to help:

- Identify the best date and workshop location

- Conduct outreach to their members and their media contacts

- Identify and invite key participants and stakeholders

- Assist in determining the walking audit route

- Play a role in conducting post-workshop follow-up and carrying the momentum forward

Make contact with the key local partners very early in the process and prioritize updating them regularly. Draw on their local insight, knowledge, contacts and influence to ensure the success of the workshop.

Begin Media Outreach (Yes, Before The Date Is Even Set)

As soon as the community or study area is selected, even before the date is set, begin media outreach. See the section below on media outreach for more information about why not to wait, and how to do it.

Select the Date

As previously described, organizing for a successful Walkability Workshop usually requires six weeks of planning time. Once the study area is identified, select a workshop date that allows time for additional preparations.

Invite Critical Participants

Offer to schedule the workshop to coincide with a council, commission, or board meeting so the audit team can make a special presentation to them.

The Walkability Workshop has the potential to create energy, support and momentum for major changes in the study area. Thus, it is important to capitalize on the opportunity by ensuring key leaders are able to take part in the workshop, or attend a special 30- to 90-minute public or private presentation held in conjunction with the workshop.

In fact, consider contacting a group with influence over the region's walkability conditions – often the city council, the planning commission or the board of county supervisors, but this could also be the Chamber of Commerce, a Main Street program,

Offer to schedule the workshop to coincide with a council, commission, or board meeting so the audit team can make a special presentation to them.

school board or other advocacy group. Offer to schedule the workshop to coincide with a meeting of theirs so that the workshop team can make a special presentation during their meeting. The workshop schedule can be adjusted to accommodate such an opportunity.

In addition to the special presentation, the workshop may be scheduled based on the availability of the following critical participants:

- City manager, mayor or other influential civic leader

- Local and or state transportation department director or key staff

- Planning department director or key staff member

- Public works department director or key staff member

- School board or key staff member

- Particularly influential advocacy or volunteer organizations, such as an environmental or health group

- Particularly influential business representatives, perhaps from the local Chamber of Commerce, the largest employer in the region or the tourism council

- Members from a Main Street group, Downtown Development Authority, Regional Planning Council or Metropolitan Planning Organization

- Local foundations or health organizations focused on improving health, well-being and aging-in-place.

- Emergency responders including police, the fire department and ambulance services

- Children

Accommodating critical participants' schedules can become difficult, so select them carefully. Two or three may be all you can focus on. For those who are unable to attend the entire event, encourage them to attend a special presentation. Also, at the project coordinator's discretion, certain critical participants can be encouraged to attend at least the morning portion of the event, or to take part in an informal dinner meeting after other workshop activities conclude.

Maximize the participation of critical participants. Often, an invitee is more willing to make time for the workshop if they are aware that an influential or prominent leader already has committed to attending.

Consider Local Contexts

Conduct brief research and enlist the feedback of local partners to determine if there is any date that should be avoided. For example, care should be taken to avoid days when other daytime planning or transportation workshops are being held, unless the Walkability Workshop can be incorporated in a meaningful and appropriate manner. Also, avoid times when political events are expected or when a major cultural event is taking place. Obviously, avoid holidays. Sometimes, though, a weekend workshop may be appropriate.

Give careful consideration to participants' comfort and abilities when scheduling the workshop in particularly cold or hot months. The workshop will include an outdoor walking audit, which can be conducted in any weather. The Walkable and Livable Communities Institute team has conducted a Walkability Workshop in temperatures reaching negative 34 degrees Fahrenheit with wind chill, but the participants' abilities and desired experience should be considered.

Place a Hold on the Dates

Contact critical stakeholders and ensure the dates desired are available. Tentatively hold dates on participants' calendars and then confirm the dates with all partner organizations and key participants.

3
Put it All Together

Identify the Audit Site

Once the local partners are engaged, the audit area is selected and the date is set, attention must be immediately turned to tackling logistics and coordination.

The first task in putting it all together is to identify the audit site. This should be determined even before the facilities and logistics are tackled, as the audit site may determine the best location for the meeting space to be arranged. Identifying the walking audit site should be done in conjunction with the local community.

First, working with key local partners, identify a short list of half-mile or one-mile corridors that would be good candidates to audit. Then, schedule a conference call with key partners whose input on the route is important. In advance of the call, send call participants the location of the candidate sites and send links to Google Earth maps of the potential sites.

Reasons to consider a corridor:

- To reduce accidents and fatality rates
- To improve safe routes to school or safe routes for seniors
- To address repeated dangerous and aggressive behaviors by drivers
- To tie the community to its economic center
- To improve connectivity or link open spaces
- To create a street network
- To review planned development and ensure expected growth is in line with the community's vision
- To combat the ill effects of sprawl
- To vision brownfield or greenfield sites

In general, strive to pick a site that captures the essence of changes needed throughout the community or that will have the greatest impact. The following are good examples of walking audit sites:

- A failing main street that needs a boost - If there is a missed opportunity for an entertainment district, and the main street traffic is diverted to regional traffic movement, include in the audit an area a block or two away that is waiting to be made into a great place. It could be just a small collection of alleys. If there is a poor link to nearby water or a critical park, build that into the exploration, too.

- A key corridor or area that was once a place of magic, and which could provide a tipping point for the community.

- A failing shopping center in need of revitalization.

- A model school or great building that needs to be saved, restored, or has been, and now needs some functioning streets to surround it.

- A connection to a great asset, park, trail system or large community park that connects senior living to local amenities.

- A place with potential to become a social gathering hub, whether simple plaza spaces, streets, or new better places to invest in mixed use retail and housing.

- An area around a medical center, where new engines of change can provide parks, a blend of housing, retail, and many places to walk.

- A campus-to-town connection that needs better streets, better street connectivity or a stronger sense of place and character.

- The missing teeth in a development – empty lots, vast parking surfaces or wide streets – where infill development is needed.

- A series of neighborhoods where traffic is not civil, and where people are willing to work together to reclaim their right to have a decent, respectful place to walk, to live, to share.

Keep in mind that once the audit site is confirmed, maps and planning documents will need to be obtained from the local planning, public works or transportation departments. It is central that the local planning, public works or transportation departments take part in discussions early on. In order to effect real change, resident advocates and municipal staff need to be partners. Bringing these folks together early is a critical component for success. Planners, designers, architects, engineers and public works staff will be able to advise the team on the guiding documents that should be reviewed and the map layers best suited for the workshop. Often, municipalities will show their support by providing an in-kind service donation for consultation and attendance at the workshop, and sometimes they will provide materials like maps, markers, the meeting space, refreshments and outreach materials which keep workshop costs low. Most importantly, this approach turns parts into partnerships.

Left: Walkability workshops can help community members envision streets, sidewalks and built environments that are more supportive of active living. The photo-visualization here in Sacramento shows how streets can be remade to accommodate people, not just cars.

Create the Workshop Schedule

The first task in putting it all together is to identify the audit site. This should be determined even before the facilities and logistics are tackled, as the audit site may determine the best location for the meeting space to be arranged. Identifying the walking audit site should be done in conjunction with the local community.

First, working with key local partners, identify a short list of half-mile or one-mile corridors that would be good candidates to audit. Then, schedule a conference call with key partners whose input on the route is important. In advance of the call, send call participants the location of the candidate sites and send links to Google Earth maps of the potential sites.

Tips for Scheduling

- If the area to be studied during the walking audit experiences issues at certain times of day, it would be valuable to arrange the event to ensure the walking audit occurs during that time. For example, participants may wish to observe school drop off or pick-up traffic. In some areas, perceptions

of personal safety are the problem and so walking audits are scheduled at dusk so that participants can observe nighttime lighting, shadows and activity.

- If the workshop is held during summer months in an area that gets very hot, the walking audit should be held as early as possible in the morning to take advantage of cooler temperatures. Likewise, if the event is held in the winter, schedule the audit for the warmest part of the day.

- If key participants are only available during certain parts of the day, this will influence the order of events as well.

1. With partners, identify a short list of corridors.

2. Schedule a conference call with the team.

3. In advance of the call, send locations or maps.

4. During the call, lead a discussion of key considerations.

The following is a sample schedule for the Walkability Workshop. Specific tips for each of these events are provided in the following pages. The facilitator can use this template to create a concise run of show that works for the community.

Sample Schedule

7.00 a.m.   Project team meets to set up the venue.

7:30 a.m.   Project team Pre-brief with the project coordinator. This can be done earlier, over breakfast, if the schedule allows.

8:00 a.m.   Registration for participants.

8:15 a.m.   *Workshop begins.* Ask participants to introduce themselves, the agency they represent, why they are attending the event, and what they hope will be an outcome of the event. Make sure that one of the team member's is capturing the desired outcomes stated by each participant as this will be useful after the walking audit. This can be written on the large pads to keep the information in front of the workshop participants.

8.30 a.m.   *Presentation.* Following introductions, the facilitator will provide the 20-minute Power Point presentation: *Walkability: Making the Case*. After the Power Point presentation, the facilitator will lead participants through a discussion that localizes the lessons learned from the Power Point presentation. Discussion topics may include thoughts on why walkability matters and its significance for the community.

9:00 a.m.   *Presentation*. Once all participants have provided their thoughts on the Power Point presentation and identified key concerns for the group, it is time to

prepare for the walking audit. The facilitator will deliver the 30-45 minute Power Point presentation: *Walkability: Principles, Deterrents and Treatments*. This presentation explains key concepts regarding walkability.

9.45 a.m.   *Presentation.* Prior to the Walking Audit, the facilitator may choose to confirm that the group understands the principles of walkability by testing cognition with the 15 minute *Practicing Assessment Presentation*. Additionally, the facilitator should discuss how to use the walking audit survey tool by reviewing it with participants.

10:15 a.m.   *Break.* This break allows participants to use the restrooms, put on their vests, gather the survey tool materials, and meet as a group to kick off the walking audit. Consider taking a photograph of the entire walking audit team as this is an important moment that should be documented.

10:30 a.m.   *The Walking Audit.* Allocate 60 to 90 minutes for the walking audit, depending on the area to be assessed. This Workbook includes the *Walking Audit Survey Tool* which allows participants to assess the area. The facilitator will want to ensure that all participants have a reflective vest, a full copy of the survey tool and the route map as the audit begins.

12:00 p.m.   *Lunch Break or Reception.* Sometimes scheduling a presentation by a key stakeholder makes for an enjoyable lunchtime program. This is also another way to tie walkability to another community initiative. Most often, the relaxed conversation that comes during the lunch hour can build additional capacity amongst participants, allowing them to get to know one another better before beginning the after-lunch activities which focus on identifying areas of concern and next steps. If the budget is limited and providing lunch for participants is not an option, the facilitator will want to provide an overview of the afternoon activities and encourage participants to eat together by identifying local establishments for lunch.

1:00 p.m.   *Small Group Breakout Sessions.* After lunch, the facilitator will organize participants into small groups of 4-8 persons in order to share their notes from the walking audit. The facilitator should encourage participants to work with others they have not had a chance to meet. In small group sessions, participants will spend a half hour comparing their audit notes and will identify their top areas of concern that they have marked as needing attention. The small groups will narrow their list for presentation to the entire group.

1.30pm   *Small Group Presentations*. Each small group will identify a presenter who will share the group's key observations from the walking audit by showcasing their areas of concern. The facilitator or a team member will want to record these observations on a master list so that common areas of concern begin to emerge.

| 2.00 p.m.	*Next Steps Action Plan*. Once all of the small groups have presented their areas of concern, the facilitator will lead the group through a next steps planning effort. This does not have to be an exhaustive list. Ideally, a short list of common concerns will have emerged from the small group breakout sessions and these items will be prioritized by the entire group. Together, identify possible next steps that are specific, measurable, actionable, reasonable and time-sensitive (SMART).
2:30 p.m.	*Concluding Thoughts.* The last activity allows participants to share their "a-ha" moment from the day and to identify their personal next step in advancing walkability and livability in the community.
3:00 p.m.	*Workshop Ends.*
3:30 p.m.	*De-Brief.* The facilitator and team will want to take a look at the draft action plan and identified next steps. This provides an opportunity for the core team to discuss their next steps. As an option, the core team may wish to conduct interviews or a group discussion with key stakeholders following the event.
4:00 p.m.	*Optional Activity.* The team enters production mode for an evening presentation or creates a technical memorandum to capture the events.
Evening:	*Optional Activity.* The team or facilitator provides a special presentation of findings to the city council, local commission, county supervisors, chamber of commerce, other key groups or the entire community. Sometimes, a meal with presentation provides a relaxed opportunity to discuss the day's findings.

Meeting Space

The meeting space where the majority of the workshop activities will be held should be within a reasonable distance of the walking audit site. Ideally, it will be within walking distance, but sometimes this isn't possible.

The space should be large enough to accommodate the anticipated number of attendees, comply with the Americans with Disabilities Act and have lavatories. City hall, a community center, school or recreation center are good choices.

The image on the following page illustrates a room layout that typically works well.

Typical Room Layout for the Workshop
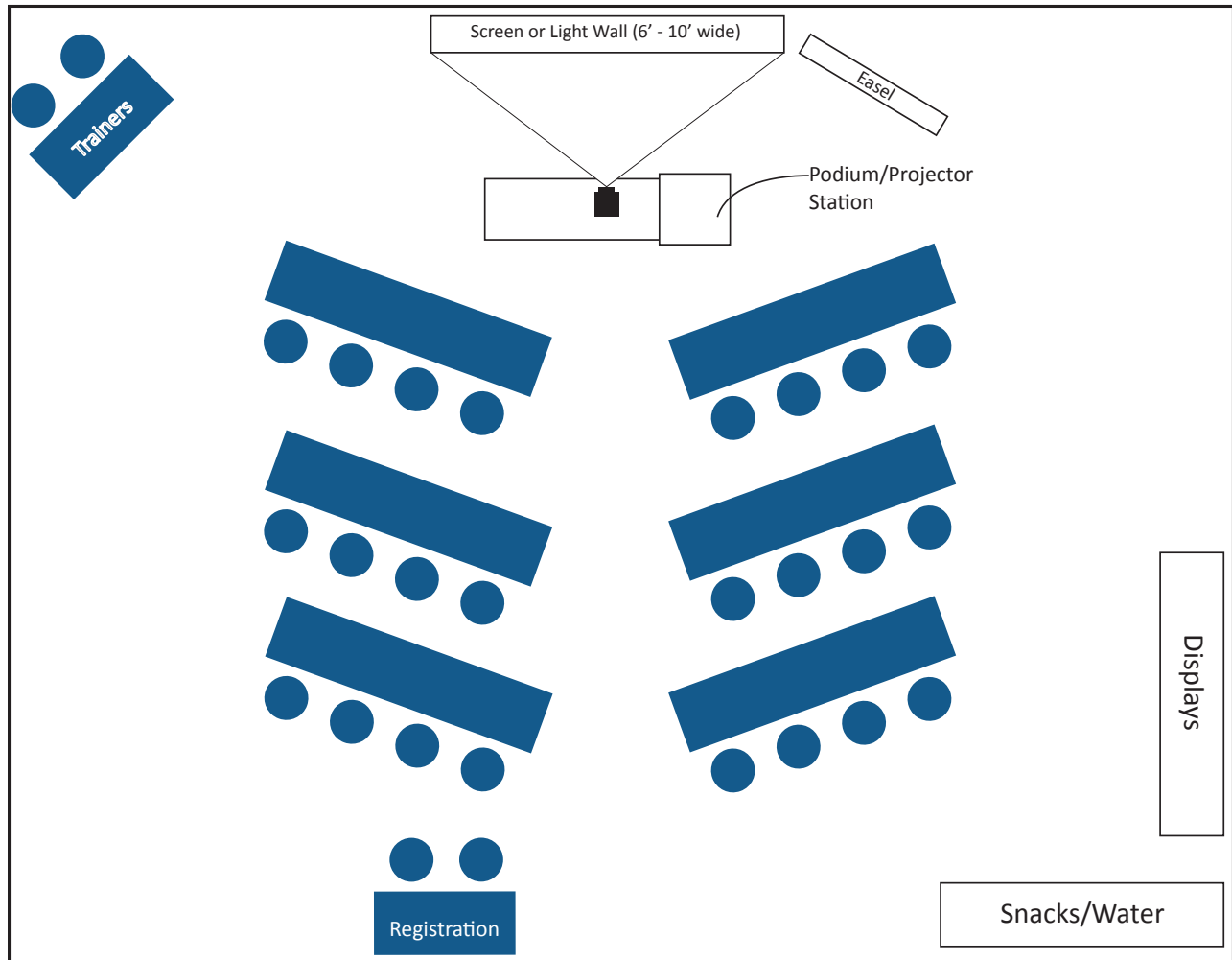
Tables and Seating

Tables of four to eight work best for the classroom-style sessions of the workshop. For the special presentation, auditorium or theatre seating is acceptable. Opt for comfortable seating as participants will be spending most of their day at the workshop.

Projector and Screen

Reserve and set up a projector that is compatible with Windows on a PC. A back-up projector is suggested, but not required. Ensure there is either a large projection screen or light, blank wall.

Lighting

Ensure that lighting can be controlled. During slide presentations, it is essential to have the ability to turn down lights in the front of the room, near the presentation screen. It is important for the team to be able to control lighting for the most effective presentation.

Public Address System

If the meeting space is equipped with a public address system, secure the ability to use it. If not, rent or otherwise provide a portable public address system, ideally with two microphones, at least one of which should be wireless.

Walking Audit Kit

- Reflective safety vests: Try to secure reflective safety vests for all who will participate in the walking audit. Good resources for such vests are the public works, police and fire departments. These departments are also key participants, so they should be contacted and invited to the workshop either way.

- Water: Offer bottles of water to participants as they head out to the walking audit.

- Wheelchair, crutches, a walker or a stroller: It often is helpful for participants in walking audits to role play and experience a walk from the perspective of someone in a wheelchair, using crutches or pushing a stroller. If any of these devices can be made available, it will enhance the learning experience.

Maps

Maps of the community and especially of the walking audit route are important to have in hard copy at the workshop. The local or regional planning or transportation department can prepare and often print the maps. This is another reason to engage them as a key local partner early in the planning process.

Provide the following maps:

- Posted on the wall or an easel: A large printed map of the community with key streets identified. Avoid too much information as only the layers with streets, parks and buildings are needed. If possible, post one copy of the map near the front of the room, and one near the entrance, as it can become a great discussion point. This map should be printed as large as three feet by five feet in size. Participants can identify with small sticker dots where they live, work and play or areas of concern.

- Available for each participant, but kept stored until the proper time: maps of the walking audit site. Print with large margins – one to three inches – so participants can write notes in the margins to supplement their survey notes.

Workshop Kit

For the discussion sessions before and after the walking audit, participants will want to record their thoughts. The following materials are recommended. Exercises are explained in detail in the Workshop section of this Facilitator's Guide.

- A sheet of small sticky dots that are about ¼-inch in diameter, or the size of a pencil eraser. They don't need to all be the same color.

- A pad of 3" wide sticky notes. Color doesn't matter.

- Four to six markers

- A short stack (one to two dozen) index cards

- Pens

- Walking Audit Survey Tool. One for each participant.

- Place a large flip pad and two markers on an easel.

Transportation

If the meeting site and the walking audit site are not within walking distance of each other, make arrangements for transportation to and from the site. Try to keep the entire group together, if possible. This often requires securing the service of a city bus, passenger coach or trolley that can seat up to 40 people. If the bus does not have a public address system, it is ideal to bring the portable public address system from the meeting room, or rent one for the bus trip.

Refreshments or Meals

Provide refreshments and snacks over the course of the workshop. Healthy offerings are best. Also, provide a meal if the workshop will take place during a typical meal time, such as lunch. In some communities, having a meal and offering a form of entertainment such as a children's choir or a mariachi band will help boost attendance. The event should be enjoyable and reflect the local character and context.

Healthy Workshop Formats

To the extent possible, utilize a healthy workshop format. For guidance, see the New York State Department of Health, Center for Community Health "Guidelines for Healthy Meetings" at: http://www.health.state.ny.us/nysdoh/prevent/docs/guidelines.pdf

Invitations and Outreach

As described previously, certain critical participants should be contacted before a date is finalized to ensure they can attend. The following are key participants who should be extended a special invitation at least a month, but preferably further, in advance of the workshop, if they were not already invited as part of the effort to engage critical participants:

• A representative of the state department of transportation

• Local elected officials

• Representatives from the Chamber of Commerce, Downtown Development Authority, Regional Planning Commission or convention and visitors' bureau

• Retailers and building owners

• School board members or school principals

• Neighborhood and park groups

• Community health organizations and foundations

• Representatives of the building industry, realtors' or developers' associations

• Residents

• Emergency responders, such as local fire or police departments

When possible, utilize the knowledge and contacts of the local partners to ensure invitations reach key participants. Make a special effort to identify and reach out to people who the key local partners expect would be opposed to an active living project. It is important to get them to the table and increase their involvement. Try to identify their concerns or potential objections, and share that information with the team in advance of the workshop. Ask folks to RSVP and keep a master list of

the name, title and agency the individual represents.

For those who are unable to attend the entire event, encourage them to attend an evening presentation, if one is scheduled, and if it is open to the public. Also, at the project coordinator's discretion, certain critical or key participants who cannot attend the entire workshop can be encouraged to attend at least the morning portion of the event, or take part in an informal dinner meeting after other workshop activities conclude.

Community Outreach

Although the critical and key participants may make up the majority of workshop participants, some of the most innovative and committed attendees often are concerned residents. Thus, distribute invitations broadly, and be inclusive rather than exclusive. Encourage recipients to forward the invitation to others they know who may be interested.

Additionally, seek the feedback of local partners and ask what outreach tools will be most helpful to them. Some local partners may prefer emailing announcements to their members. Some may be able to distribute hard-copy flyers. Some may have access to a public-affairs show or an online community and could make announcements in that manner.

Social Media

Given the rise of social media as an important communication tool, any discussion of an outreach program would be incomplete without at least addressing social media's role.

If you or the local partners already have active social media platforms, such as Facebook or Twitter, utilize them as soon as a date for the workshop is set, to begin a discussion about livability and generate interest in the workshop. If strong social media platforms do not already exist, trying to create any in advance of the workshop likely would not produce good results.

Following the workshop, however, and depending on the goals of the working group, social media may be an important component of the overall strategy to keep large groups of people updated about project undertakings or the working group's efforts.

Either way, it is important to keep in mind that social media as used by organizations are most effective when viewed as a means to generate dialogue and engage people in discussion, not just as a means to disseminate information.

Media Outreach

Conducting effective outreach to news outlets is important not only to the success of the workshop, but also to the success of any projects undertaken as a result of the workshop. The news media should be viewed as far more than simply a means to get the word out about the workshop. Rather, the workshop is an opportunity to build capacity with news organizations – just as the workshop will help build capacity amongst participants – and build relationships with reporters who will be valuable to ensure the general public is receiving accurate, timely and meaningful information about walkability efforts.

The First Step - Call Key Outlets Early

As soon as the date of the workshop is confirmed, and prior to having all other details set, call – don't email, fax or send a letter – key reporters to let them know the event is being organized, to share the purpose of the workshop, and to ask them how best to provide more information when it is available. Keep a list of the contacts made and how they would like to receive additional information; then, be sure to follow up in that manner.

Depending on the news organization, its depth and structure, special effort should be made to reach transportation, public safety, health and business reporters. Contact the primary news sources in local and regional markets, but don't overlook nontraditional news sources, such as blogs that cater to pedestrians and advocates, or that address transportation, public safety, community health, retirement and business issues. Any key reporters – regardless of their medium – should be contacted as soon as possible by phone.

Also, offer to submit a guest commentary in advance of the workshop, or to a secure a prominent guest for an upcoming talk show.

Issue a News Release

Develop a news release that is engaging and written in the form of a news story. Be sure to include the important five W's – who, what, why, when and where. Describe the goal of the workshop, who should attend, who will be presenting, where and when the workshop will be held, and any other information that will help make the story meaningful and relevant to the local and regional audience. Include keywords to ensure the news release and its contents can be easily found online.

Distribute the news release initially to the key media outlets already contacted, and be sure to provide it in the manner they requested (check the list made during the initial conversations). Then, distribute the news release to all other media outlets in the region. Consider using the following tools to ensure all appropriate outlets are contacted:

- NewsLink, at www.newslink.org, where you can search by location for newspapers and magazines, and radio and TV stations

- Newspaper Association of America, at www.newspaperlinks.com, where you can search by location for all types of newspapers, including college papers, as well as press associations

- Google Blog Search, at www.blogsearch.google.com, where you can search by keywords for relevant blogs

Also, consider including nontraditional news sources in the media outreach strategy. For example, a good source of local news may be Patch (www.patch.com), which focuses on small communities underserved by media. Patch is not present everywhere, but is expanding.

Finally, distribute the news release to local partners and other local contacts, asking them to share it with their media contacts. The value of the relationships the local partners already have with media contacts should not be overlooked; tap into that value by supporting the local partners in their efforts to conduct media outreach for the benefit of the workshop and related efforts.

Update the Project Team

One week prior to the event, email the following details to the entire team:

- Agenda and anticipated roster with attendees' titles or affiliations

- A map with the walking audit site and route. Any information available about the site, including the Right-of-Way widths, average annual daily traffic (AADT), accident rates, and aerial photographs. These details can most likely be obtained from the local planning or transportation departments. You will want any information that support the cause of concern or reasons for choosing the audit site.

- The community's guiding documents, such as the vision plan, comprehensive plan, a bicycle or pedestrian master plan, economic development plan, or parks and open-space plan. These documents should be available from the planning, transportation or parks/recreation departments. They may also be available online.

- Cell phone numbers for the project coordinator, any assistants, and any key local partners who the team may need to contact if the project coordinator is not available.

4
The Workshop

Although events vary, the following provides general guidance on activities and details to be managed the day before, the day of and the days following the workshop.

Pre-brief with Team

It is important for the team and the project coordinator to spend time together prior to the start of the workshop to have an informal, casual discussion to get to know each other, to address any last-minute details, and to review the day's agenda. Most importantly, though, the team will have a chance to discuss local issues, recent or current events that may affect participants' outlooks, background about the critical participants and key participants, and so on. Also at this time, cell phone numbers should be confirmed so that coordination can happen throughout the day.

Event Set-Up

Beginning about an hour prior to the start of registration, the following set-up tasks should be handled:

• Arrange the tables and seating; place the charrette supplies on the tables

• Prepare the registration table

• Post the agenda on the wall or easel

• Put out refreshments or snacks

• Test the projector and lighting

• Make any other arrangements needed

Registration

A registration table should be stationed inside the meeting room, near the main entrance, and should be staffed by at least one person starting 15 minutes prior to the start of registration until about 15 minutes after the workshop begins.

In addition to a warm welcome, the registrar should offer information about the day's agenda, collect information about participants (usually with a sign-in sheet), provide name tags to participants and share any critical information with the team.

Agenda

A large printed copy of the day's agenda should be posted on the registration table, as well as on the wall or an easel near the front of the room. Additional copies are not necessary.

Name Tags

Ideally, the registration table staff will write the participants' first name in large letters on the name tag. The goal is for the workshop leaders to be able to read the names on the tags from afar. Additional information, such as last name and title, is not necessary.

Sign-In Sheet

All workshop participants should be asked to sign in and provide their full name, title, organization and contact information, especially an email address. Don't collect information that won't be useful, such as a fax number.

To improve efficiency and eliminate the need for someone to transcribe information from a manual sign-in sheet to a database, consider using a laptop computer and electronic sign-in forms at the registration table.

Sign-in sheets can be created in a program such as Microsoft Excel, but care must be taken to avoid deleting fields as new information is entered. Safer forms can be developed in Microsoft Access.

The easiest alternative may be to develop online sign-in forms, which can be done easily using Google Docs (www.docs.google.com). Sign up for a free account, and use the existing templates for sign-in sheets; simply update the fields where needed. The forms can be set up to require that a "submit" button be pressed after entering each participants' information, which then commits that information to the database without risking deleting the database information.

The registrar can ask participants for their information and enter it into the electronic sign-in sheet or, if two laptops are available, participants can enter information directly, while the registrar creates their name tags or handles other tasks. If participants are to enter information themselves into an electronic form, the process should be managed so that there is still plenty of interpersonal communication between the participant and the registrar.

If using electronic sign-in sheets, always ask participants to fill in their email address twice – in two separate fields – to reduce the likelihood of typos or errors. Email is an important form of communication and care should be taken to ensure addresses are saved accurately.

Share Critical Information With The Team

If any critical information arises, the registrar should immediately share it with the workshop team. The project coordinator should plan to be on-site and with the workshop group for the duration of the workshop, including the walking audit. Occasionally, a need or concern will arise that the project coordinator is uniquely qualified to address. However, the project coordinator also will be managing details such as the refreshments, the caterer, any buses or shuttles to be used, the facility and so on. Thus, if the project coordinator needs to leave the site, he or she should let another team member know and ensure a working cell phone number is provided.

The Walkability Audit

See the *Walking Audit Survey Tool* for the specific pages that walking audit participants will use to document existing conditions during the walking audit. During the walkability audit portion of the workshop, each participant should have a hard copy of the entire Walking Audit Survey Tool.

Organize a Working Group

By the end of the workshop, participants will be motivated to enact positive change. They will be eager from discussing next steps and may wish to offer their energies to support the movement. This state of commitment and unity should not be allowed to pass without an effort to harness and channel it.

A best practice is to create a working group of diverse yet committed people who will continue to communicate with each other and meet regularly to carry forward the work begun with the workshop. Thus, the project coordinator should seize the opportunity and organize the active living working group before participants even leave the workshop. If a working group is to be formed, the team will allocate time toward the close of the workshop for the project coordinator to address the participants and encourage their involvement.

Opting In

Workshop participants should, as a default, be given meaningful information about the working group, but they should not, as a default, be added to the working group. Rather, workshop participants who want to be in the working group should have to consciously opt-in. This increases the group's chances of success by ensuring that only those people truly interested and committed to walkability are participating. It also provides a chance to evaluate their availability and opportunity to contribute.

Opting in should be made easy. The following are simple and effective methods to have workshop participants opt-in to the working group:

1. A sign-up sheet at the end of the workshop at the registration table. In fact, if an electronic sign-in sheet is used, the project coordinator could take a minute during the day to add columns to the sheet so opting in can be as easy as adding a checkmark next to a name.

2. A drop-box made available on the registration table into which participants can simply drop their business card or a note with their name and contact information.

3. An email sent to all workshop attendees following the workshop that asks them to provide a response. Set a deadline for responses.

4. An online tool, such as Doodle (www.doodle.com) that allows them to indicate their interest and preferred meetings time in an interactive table. Set a deadline for responses.

The project facilitator should begin communicating as soon as possible – within days, not weeks – with the members of the working group and helping to organize their first meeting.

The project facilitator also should plan to serve as the acting chairperson of the working group for at least the first few meetings, until group members get to know each other, understand each other's skills, and settle into roles that are natural fits and that will improve the group's chances of success.

Special Public or Private Presentation

If a special presentation is scheduled for the evening, the team should take at least two hours to prepare for it. This presentation should include 1) acknowledgement of participants, 2) key findings from the walkability workshop, and 3) a question and answer period to discuss the findings and next steps.

Debrief with the Team

Following the special presentation and depending on travel schedules, the project coordinator and walkability workshop team should get together to de-brief. Again, this will be an informal and casual discussion to review the day's successes, challenges and overall outcomes. This also will be a good time to discuss post-event tasks, deliverables and next steps.

Post-Event Tasks

Within a few days of the workshop, the project coordinator should send a follow-up email or other form of correspondence to all workshop attendees thanking them for their participation, providing any promised additional information, and reminding them that they are invited to join the working group, if they have not already done so.

5
Channel the Momentum

As described previously, the project facilitator's role should include continuing to facilitate and support the movement toward improved walkability and livability, even after the workshop is complete and the final technical memo is distributed.

Several best practices to do so include guiding the initial efforts of the active living working group, celebrating early achievements, building a relationship with reporters and local media outlets, and assisting in securing any needed professional services.

Guide Initial Efforts of the Working Group

The project facilitator will be responsible for guiding the initial efforts of the active living working group. Specifically, the project facilitator will need to assist with early communications and organize the first few meetings of the group. Additionally, as described below, the project coordinator should serve during the first two or three months as the acting chairperson of the group.

The working group's first tasks should be to set general objectives, methods of communicating or protocols, and meeting frequency and dates. See the Forming a Great Group Tool in Part III: Walkability Toolbox. Additionally, the group may wish to identify a chairperson and committee leaders, but members should not rush to create those roles and titles. In fact, it would be wise for the project coordinator to serve for the first two or three months as the working group's acting chairperson, to allow members to settle into roles that are naturally a good fit for their abilities and availability.

Once the group's general objectives are set, those objectives will guide subsequent tasks, which likely will include:

- Discuss and develop an understanding of the needs of the community, the agencies involved in improving walkability and key stakeholder groups. Prioritize projects based on those needs, giving special attention to any community consensus, such as a vision that may have been expressed in a vision plan developed through a public process.

- Consider inviting representatives from key partner groups to serve on the working group.

- Pursue partnerships with the following governmental organizations:
    o The local transportation, public works and planning departments
    o Any regional transportation planning agencies, such as a Metropolitan Planning Organization or a Regional Planning Council
    o The state department of transportation
    o State and local parks departments
    o The local or state health department
    o The local or state air-quality agency
    o School boards
    o Planning commissioners, city councillors or other elected leaders

- Review municipal or state policies, update existing guidance documents and create new guidance documents to support Smart Growth and Complete Streets strategies, including villages, modern roundabouts, increased street connectivity, road diets, mid-block crossings and other tools that support multi-modal transportation and active living. See Street Treatments that Encourage Active Transportation in Part III: Walkability Toolbox.

- Develop a library of articles, research and testimonials that can be drawn upon to continue building capacity, and to help address concerns and objections to active living projects.

Celebrate Early Achievements

It is important to celebrate the early wins and accomplishments of the working group and community. This not only provides working group members encouragement that their efforts are appreciated, but also helps build more awareness and interest amongst community members. Celebrating achievements also helps to win over people previously opposed to the active living effort. And when it comes time to undertake significant projects with large budgets and lots of visibility, celebrating the early wins will have paid dividends by helping the public understand why the project is important and how it will benefit them.

Depending on the accomplishment, celebrating an early win can involve a ribbon-cutting ceremony or grand opening, a block party, a news release and other media outreach, announcements on local radio or TV, or other forms of publicity and fun. Consider a 100-day challenge in order to move activities forward to build on the momentum from the workshop. See the *100-Day Challenge Tool* in Part III: Walkability Toolbox.

Concluding Thoughts:
A message from Dan Burden, Executive Director, WALC Institute

Throughout history, the healthiest and happiest communities have grown organically, in response to the changing needs of people who are actively working together to improve their nest. Such a community-building process was interrupted in America when we stopped planning our communities for people.

Times have changed. After many successful neighborhood-level and town-making projects, we now know that it is the act of all people, especially neighbors, working together with municipal staff and elected leaders that gives clear vision, guidance and spirit to town-making. The best built environments are the result of collaboration. They are built with our neighbors to provide quality of life for all. We hope that this workbook and the resulting workshop help put some of the fun and delight back into town making, recharge engines in the process, and lead to many successful projects over time. Our cities and our individual lives need this. It is time to place a human being, not a car, at the center of our design scale.

In case there are any doubts about the ability of a walkability workshop and walking audit to be the catalyst for major change in the community, I offer this true story: we were leading a walking audit on Main Street in Grand Junction, Colorado, 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. See the image of Grand Junction above. This not only reinforces the importance of having the right people involved, but also illustrates the power of the effort and our ability to effect change by sharing ideas with one another.

Here's to a successful workshop!

Walkable and Livable Communities Institute
1215 Lawrence Street, Unit 001
Port Townsend, WA 98368
(360) 385-3421
www.walklive.org

Presentation Notes

Walkable and Livable
Communities Institute

Presentation 1. Walkability: Making the Case

Slide

Walkability: Making the Case
Walkable and Livable Communities Institute

Walkability: Why?

Safety	Health & Well-Being
	Walkability	
Equity & Prosperity	Sustainability

Safety

DANGEROUS BY DESIGN 2011

Between 2000 – 2009, more than 47,700 pedestrians were killed in the U.S.

Obesity Rates

Obesity (BMI≥30)

2010

Notes

NOTE: The Walkability Workbook provides four presentations:1) Walkability: Making the Case; 2) Walkability: Principles, Treatments and Deterrents; 3) Practicing Assessment; and 4) How to Use the Walkability Audit Survey Tool. These presentations were created by the Walkable and Livable Communities Institute in April 2012. These presentations can be used "as is" for the Walkability Workshop or can be modified by the facilitator to include key data and images from the local community. This first presentation – Walkability: Making the Case – speaks to why communities must look to walkability if they are to have improved safety, health and well-being, equity and prosperity, and sustainability. This first presentation ensures that participants are on the same page and understand the significant health, economic and social problems tied to the built environment.

NOTE: Communities that support walkability have better physical health and well-being, lower rates of traffic injuries and deaths, better access for people of all abilities, higher property values, better air quality and less greenhouse gas emissions. Resources are linked on subsequent slides to give participants and facilitators key resources and research in support of walkability.

NOTE: According to the Dangerous by Design 2011 report, in the first decade of the millennium, the number of motorists and their passengers who died in traffic crashes decline by 27 percent. Unfortunately, pedestrians haven't faired as well. To quote from the report: "Pedestrian fatalities have fallen at only half the rate of motorists, dropping by just over 14 percent during the period. In many places, including 15 of the country's largest metro areas, pedestrian fatalities have actually increased, even as overall traffic deaths fell. And a recent report from the National Highway Traffic Safety Administration found that pedestrian crashes are becoming deadlier, with the probability of a collision resulting in the death of a pedestrian increasing by more than one-third in just ten years." Read the full report here: http://t4america.org/resources/dangerousbydesign2011/

NOTE: The total cost of obesity and being overweight was estimated in 2004 to be $117 billion. In 2008, the total cost was estimated at $147 billion. Healthcare costs attributed to a lack of physical activity are about $76 billion per year. Chronic diseases are the leading cause of death and disability in the U.S., responsible for seven out of 10 deaths. Healthy lifestyles, including physical activity, can lower the risk of obesity and chronic disease. See more data on the costs of auto dependency here: http://www.walklive.org/wp-content/uploads/2011/04/ITE-Complete-Streets-Article-April-2011-Burden-Litman.pdf and http://www.cdc.gov/obesity/causes/economics.html

Slide

Notes

NOTE: Although lack of physical activity isn't the only cause of chronic disease, experts agree that it is a key factor. Further, according to the American Public Health Association, the cost of obesity and inactivity to society is enormous and growing. To learn more, visit: http://www.apha.org/NR/rdonlyres/43F10382-FB68-4112-8C75-49DCB10F8ECF/0/TransportationBrief.pdf and http://www.slate.com/articles/business/moneybox/2011/05/your_commute_is_killing_you.html.

NOTE: According to the U.S. Centers for Disease Control and Prevention, childhood obesity has more than tripled in the past 30 years and more than one-third of all American children are overweight or obese. Public health experts warn that Americans born today might not live as long as their parents. Learn more about childhood obesity here: http://www.cdc.gov/HealthyYouth/obesity/facts.htm.

NOTE: What behaviors are we modeling for our children? To learn more about the costs of obesity, visit: http://www.usatoday.com/yourlife/health/medical/2011-01-12-obesity-costs-300-bilion_N.htm and http://www.cdc.gov/obesity/childhood/basics.html

NOTE: To learn more about diabetes, visit: http://www.cdc.gov/diabetes/pubs/pdf/ndfs_2011.pdf

NOTE: To learn more about diabetes, visit: http://www.cdc.gov/diabetes/pubs/pdf/ndfs_2011.pdf

Slide

Notes

NOTE: To learn more, visit the American Academy of Allergy, Asthma and Immunology website at: www.aaaai.org and the Centers for Disease Control and Prevention report Asthma's Impact on Children and Adolescents at: http://www.cdc.gov/asthma/children.htm. The Centers for Disease Control and Prevention National Asthma Control Program "Breathing Easier" report can be found here: www.cdc.gov/asthma/pdfs/aag07.pdf

NOTE: Air pollution is associated with significant health issues, including asthma, respiratory illness, heart disease, and cancer. 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. Four thousand people die each year from asthma-related causes, and asthma is a contributing factor for another 7,000 deaths every year. Asthma prevalence among children has increased an average 4.3 percent per year from 1980–1996. Each year, asthma accounts for 14 million days of missed school days by children. See the American Academy of Allergy, Asthma and Immunology website at: www.aaaai.org. Also see the Centers for Disease Control and Prevention reports on Asthma's Impact on Children and Adolescents at: http://www.cdc.gov/asthma/children.htm and www.cdc.gov/asthma/pdfs/aag07.pdf. The 2000 Federal Highway Administration addendum to the 1997 Federal Highway Cost Allocation Study Final Report can be found here: http://www.fhwa.dot.gov/policy/hcas/addendum.htm. The costs of congestion can be found here: http://www.its.dot.gov/congestion/index.htm. The Urban Land Institute "Growing Cooler Report can be found here: http://www.uli.org/ResearchAndPublications/Reports/~/media/Documents/ResearchAndPublications/Reports/GrowingCooler.ashx

NOTE: To learn more about Safe Routes to School, visit: http://www.saferoutespartnership.org/sites/default/files/pdf/Safety_report_final.pdf and http://www.saferoutesinfo.org/

NOTE: http://www.nytimes.com/2005/03/17/health/17obese.html and http://www.nejm.org/doi/pdf/10.1056/NEJMsr043743. To learn more about prescriptions for anti-depressants, visit: http://articles.cnn.com/2007-07-09/health/antidepressants_1_antidepressants-high-blood-pressure-drugs-psychotropic-drugs?_s=PM:HEALTH and http://www.prevention.com/fitness/fitness-tips/fight-depression-fitness-walking and http://www.nytimes.com/2005/03/16/health/16cnd-obese.html?position=&pagewanted=print&position=

Slide

Social Equity

Americans in the lowest 20 percent income bracket, many of whom live in rural settings, spend about 42 percent of their total annual incomes on transportation, compared to 22 percent among middle-income Americans.

Social Equity

Nearly 1/3 of the United States population is transportation disadvantaged and without reliable access to food, medical care, employment or educational opportunities.

Social Equity

Half of all non-drivers age 65 and over – almost 4 million Americans – stay at home on a given day because they lack transportation.

Sustainability

Congestion cost $87.2 billion in hours and fuel in 2007.

Notes

NOTE: To learn more about social equity and transportation, see: http://www.civilrights.org/transportation/where-we-go.html. Additionally, one survey found that four percent of U.S. children (3.2 million in total) either missed a scheduled healthcare visit or did not schedule a visit during the preceding year because of transportation restrictions. See "The Growing Health Care Access Crisis for American Children: One in Four at Risk," at: http://www.childrenshealthfund.org/sites/default/files/WhitePaper-May2007-FINAL.pdf. Also see the Complete Streets Coalition Transportation Fact Sheet at: http://www.completestreets.org/complete-streets-fundamentals/factsheets/transportation-costs/

NOTE: Definition of Transportation Disadvantaged: Those persons who because of physical or mental disability, income status, or age are unable to transport themselves or to purchase transportation and are, therefore, dependent upon others to obtain access to health care, employment, education, shopping, social activities, or other life-sustaining activities. To learn more, visit: http://www.gao.gov/new.items/d0744.pdf. The average annual cost of owning a car is $9,498. Those who can't afford a car may not have access to jobs, to schools and to basic services. See: http://www.boston.com/cars/newsandreviews/overdrive/2011/04/average_car_ownership_nearly_9000_per_year.html

NOTE: Older Americans, in particular, are at great risk for rapidly declining health and social isolation once they lose the ability to travel on their own. If seniors want to go somewhere, many must walk or use other non-motorized modes of transportation. But doing so can be particularly dangerous for them: older people are overrepresented in intersection fatalities by a factor of more than two-to-one. See: http://safety.fhwa.dot.gov/intersection/resources/fhwasa10005/docs/brief_9.pdf. Given the large and fast-growing numbers of the country's aging population, it's critical to evaluate the impact of the built environment on them. It's also worth pointing out that if communities are designed to be accessible and safe for seniors, typically they will be accessible and safe for children and other people who are unable to drive. By improving conditions for seniors, communities improve conditions for all.

NOTE: The cost of health issues associated with poor air quality due to transportation is estimated at between $40 billion and $64 billion per year. See the American Public Health Association report "At the Crossroads of Transportation and Public Health Policy," at: http://www.apha.org/NR/rdonlyres/43F10382-FB68-4112-8C75-49DCB10F8ECF/0/TransportationBrief.pdf.

Slide	**Notes**

NOTE: To learn more about the costs of congestion, visit: http://www.completestreets.org/complete-streets-fundamentals/factsheets/ease-congestion/ and http://www.completestreets.org/webdocs/factsheets/cs-gasprices.pdf

NOTE: To learn more about the benefits of active transportation, visit: http://www.apha.org/NR/rdonlyres/A3C32D1B-5799-4C7F8D-73110B09AB75F2/0/APHAActiveTransportationFactSheet2010.pdf.


NOTE: The costs and the statistics are daunting. But the good news is that healthy lifestyles, including physical activity, can lower the risk of obesity and chronic disease. See: *Making Places Healthy: Designing and Building for Health, Well-Being, and Sustainability* by Andrew L. Dannenberg, Howard Frumkin and Richard J. Jackson

NOTE: In April 2012, the Walkable and Livable Communities Institute worked with the Arkansas Coalition for Obesity Prevention to "train the trainers" in conducting walking audits in Arkansas. In order to "Make the Case for Walkability in Arkansas," trainers localized the presentation by providing data and images from Arkansas. Facilitators of Walkability Workshops should look for opportunities to pull the community's data in support of walkable communities.

The data from Arkansas is as follows: In 2009, 62,808 total crashes and 529 fatal crashes were reported. In 2009, 16 – 20 year-olds had the highest number of fatalities by age group (59) and 21-25 year-olds had the second highest number of fatalities (58). Between 2000 – 2009, Arkansas fatal crash rate was higher than the national average. During this same time period, the percent of fatal accidents that were alcohol related, jumped from 28% to 36% of all fatal accidents. To learn more, visit: http://www-nrd.nhtsa.dot.gov/departments/nrd-30/ncsa/STSI/USA%20WEB%20RE-PORT.HTM. The photograph above is a roadside memorial from the Levy Neighborhood of North Little Rock, Arkansas.

Slide
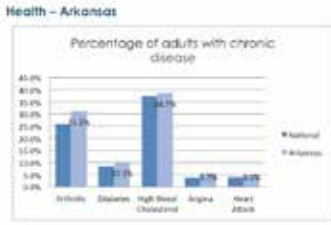
Notes

NOTE: The percentage of adults with the following chronic diseases - arthritis, diabetes, high blood cholesterol, angina and heart attack - is higher in Arkansas than the national average. See: http://www.cdc.gov/chronicdisease/states/pdf/arkansas.pdf. Arkansas currently ranks as the 10th heaviest state in the nation. Over 65% of Arkansas adults are overweight and obese. To learn more about the Arkansas Coalition of Obesity Prevention, visit: http://www.arkansasobesity.org/. For the health impacts of transportation data, visit the American Public Health Association at: http://www.apha.org/advocacy/reports/facts/ and http://www.healthy.arkansas.gov/programsServices/chronicDisease/Pages/Obesity.aspx

NOTE: For transportation data by state, visit: http://www.site-kconstructionzone.com/?tag=national-highway-traffic-safety-administration-nhtsa. For data on active transportation, visit: http://bicycling.com/blogs/thehub/2011/05/24/2011-best-bike-friendly-states-announced/ and http://www.bikeleague.org/resources/reports/pdfs/acs_08_summary.pdf

NOTE: To view the ASCE State by State Infrastructure Assessment, visit http://www.site-kconstructionzone.com/?p=108. To learn more about poverty in the United States, visit: http://www.childrensdefense.org/child-research-data-publications/data/state-of-americas-children-2010-report-child-poverty.pdf

NOTE: To access the AARP Voices of 50+ America: Dreams and Challenges survey, visit: http://assets.aarp.org/rgcenter/general/voices-america-dreams-challenges-national.pdf.

NOTE: This presentation was created the Walkable and Livable Communities Institute. It should be modified for your presentation needs. Please credit the source materials as: Walkable and Livable Communities Institute/www.walklive.org. Facilitators should update this slide by adding their contact information.

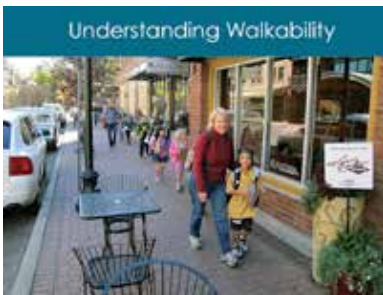# Presentation 2. Walkability: Principles, Deterrents and Treatments

Slide	Notes
	NOTE: The Walkability Workbook provides four presentations:1) Walkability: Making the Case; 2) Walkability: Principles, Deterrents and Treatments; 3) Putting New Skills to Work; and 4) How to Use the Walkability Audit Survey Tool. These presentations were created by the Walkable and Livable Communities Institute in April 2012. These presentations can be used "as is" for the Walkability Workshop or can be modified by the facilitator to include key data and images from local communities. This second presentation – Walkability: Principles, Deterrents and Treatments – speaks to how communities must address walkability if they are to be accessible, welcoming, convenient and safe. This second presentation explains the principles of walkability and then provides examples of main deterrents to walkability and treatments to encourage walkability.
	NOTE: This presentation has three parts: 1) Principles of Walkability; 2) Deterrents to Walkability; and 3) Treatments to Encourage Walkability.
	NOTE: Walkability is defined as: How comfortable an area is for walking. Walkability is based on four criteria which will be discussed in subsequent slides: *1. How Accessible* *2. How Welcoming* *3. How Convenient* *4. How Safe*
	NOTE: Accessibility is the degree to which the built environment allows and encourages all users. This section focuses on how well the street, the intersection and their design features encourage all users. To learn more about accessibility, go to: http://www.access-board.gov/prowac/draft.htm
	NOTE: Slides 5 – 11 showcase different parts of the street network. Andrés Duany, American architect and urban planner, speaks to how the use of alleys can lead to a better integration of automobile and foot traffic in a neighborhood. See: http://articles.chicagotribune.com/2005-11-07/features/0511070026_1_alleys-new-urbanism-urban-planner. An explanation of transects can be found here: http://bettercities.net/article/transect; and functional classification is explained here: http://www.fhwa.dot.gov/environment/publications/flexibility/ch03.cfm_and_http://www.ite.org/css/online/DWUT04.html

Slide	Notes
Understanding Street Complexity *Residential Street*	NOTE: To learn more about residential streets, see: http://web.mit.edu/ebj/www/Official%20final.pdf and [paperback] *Residential Streets* by Walter M. Kulash. To learn more about the design criteria for Street Classifications and Street Types, see: http://www.seattle.gov/transportation/rowmanual/manual/4_2.asp#421d
Understanding Street Complexity *Collector*	NOTE: Collector—A street that typically balances traffic mobility and property access. Collector streets provide land access and traffic circulation within residential neighborhoods, commercial and industrial areas. Collector streets pass through residential neighborhoods, distributing trips from the arterials through the area to the ultimate destination. Collector streets also collect traffic from local streets in residential neighborhoods and channel it into the arterial system. In the central business district, and in other areas of like development and traffic density, the collector system may include the street grid that forms a logical entity for traffic circulation. To learn more about Neighborhood Collectors, visit: http://www.ite.org/traffic/documents/Tcir0009c.pdf and http://www.ite.org/css/online/DWUTapp1.html
Understanding Street Complexity *Main Street*	NOTE: To learn more about Main Streets, visit: http://www.preservationnation.org/main-street/ and http://www.ite.org/css/FactSheet7.pdf
Understanding Street Complexity *Arterial*	NOTE: Arterial—A street that typically emphasizes a high level of traffic mobility and a low level of property access. Arterials accommodate relatively high levels of traffic at higher speeds than other functional classes and serve longer distance trips. Arterial streets serve major centers of activity of a metropolitan area and carry a high proportion of the total urban area travel. Arterials also serve significant intra-area travel, such as between central business districts and outlying residential areas, between major inner city communities or major suburban centers. Arterial streets carry important intra-urban as well as intercity bus routes. See: http://www.ite.org/css/online/DWUTapp1.html

Slide

Notes

NOTE: We have the opportunity to choose what we want our community to be – walkable, pleasant, welcoming to all users, as in the right image, or a place for cars to pass through as in the left. By functional classification, these streets are the same: arterials. Which street would you prefer to walk on? To learn more about the functional classification of streets, visit: http://www.fhwa.dot.gov/planning/fcsec2_1.htm.

NOTE: We have the opportunity to choose what we want our community to be – walkable, pleasant, welcoming to all users, as in the top image, or a place for cars to pass through. By functional classification, these streets are the same: neighborhood collectors. Which street would you prefer to walk on or to live on? To learn more about the functional classification of streets, visit: http://www.fhwa.dot.gov/planning/fcsec2_1.htm

NOTE: These streets both have 3-lanes in each direction, yet the tree-lined route in Orlando, Florida, provides a defined edge, while the street with similar capacity in Houston, Texas, has an unmaintained edge that changes the entire feel and value of land along the street.

NOTE: Even the same street will have different sections, depending on when it was built and where it is located. Sometimes, the county or municipal boundary will indicate the change of street type and the surrounding land uses.

NOTE: Highway 93 in Missoula, Montana and Marine Drive, Dundarave, British Columbia. Marine Drive moves more vehicles per day. Which street would your prefer to be on or to run your business on?

Slide	Notes
The Parts of a Street	NOTE: This graphic explains the parts of a street: Sidewalks, Bike Lanes, Vehicle Travel Lanes, Driveways and Parking. These elements are explained in more details in slides 16 – 20.
The Parts of a Street	NOTE: Divided streets with a center median and 10-foot travel lanes, a bike lane, and buffered sidewalk allow us to anticipate the behaviors of all users better. To see the impact of lane widths on driver's performance, go to: http://safety.fhwa.dot.gov/geometric/pubs/mitigationstrategies/chapter3/3_lanewidth.htm and http://www.completestreets.org/webdocs/resources/lanewidth-safety.pdf.
Sidewalks	NOTE: As with roadways, sidewalks should be wide enough for multiple directions of travel and diversity of uses, but they also require space for outdoor furniture, shy zones and to meet user needs. Most commercial sidewalks range in width from 8 feet to more than 30 feet. A sidewalk should have a coordinated furniture zone where bike racks, trees, and other "furniture" is located. Trees provide a nice buffer between the sidewalk user and moving vehicles. The 2 feet closest to the buildings is known as the shy zone. The active or walking zone is between the shy and furniture zones and should remain unimpeded. To learn more about sidewalk widths, go to: http://guide.saferoutesinfo.org/engineering/sidewalks.cfm#width.
Bike Lanes	NOTE: The image above shows a design speed of 30mph and the dimensions of the travel lanes, bike lanes and parking. Bike lanes are defined as "a portion of the roadway which has been designated by striping, signing and pavement markings for the preferential or exclusive use by bicyclists." Bicycle lanes make the movements of both motorists and bicyclists more predictable and as with other bicycle facilities, there are advantages to all road users in striping them on the roadway. To learn more about bike lane dimensions, visit: http://www.bicyclinginfo.org/engineering/facilities-bikelanes.cfm. Examples of successful bike programs can be found here: http://www.seattle.gov/transportation/bikemaps.htm and http://www.portlandonline.com/transportation/index.cfm?c=34772

Slide

Travel Lanes

Why Complete Streets Matter

Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street.

Example of a Complete Street
La Jolla Boulevard, San Diego, CA

Notes

NOTES: Bikes on the sidewalks, bicycling against traffic and lack of bike racks are common and indicate facilities are not meeting the needs of users.

NOTE: Lane widths generally range from 9 - 12 feet and safety and performance is tied to lane width. To learn more, visit: http://safety.fhwa.dot.gov/geometric/pubs/mitigationstrategies/chapter3/3_lanewidth.htm and http://www.walkinginfo.org/library/details.cfm?id=4348 and http://safety.fhwa.dot.gov/geometric/pubs/mitigationstrategies/chapter3/3_lanewidth.htm. When conducting a walking audit, noting the widths of lanes and sidewalks will help determine whether space has been allocated correctly to meet the needs of all users.

NOTE: Complete Streets are streets for everyone. Complete Streets allow us to integrate the modes in a predictable way. To learn more, go to: http://www.completestreets.org/complete-streets-fundamentals/fact-sheets/livable-communities/

NOTE: A commercial district along La Jolla Boulevard bisects the San Diego community of Bird Rock. The corridor was five lanes wide with signalized intersections, and required pedestrians to cross 78 feet of roadway. In 2004, City Council members suggested a road diet that would take the street down to two lanes. After several years of enthusiastic civic engagement and negotiations, the plan was implemented in 2008. The final design replaced four traffic signals and one four-way stop with five roundabouts, and reduced pedestrian crossing distances to 14 feet with refuge provided on landscaped medians. Bike lanes striped on the street provided safe space for cyclists as well. Angled parking was created on one side of the street, with a transition lane allowing cars to park and unpark without disrupting the flow of traffic. The corridor now handles up to 23,000 cars each day at greatly reduced speeds and shows strong economic performance.

NOTE: "Before Image" - The crossing on La Jolla Boulevard used to be 78 feet.

Slide

Notes

NOTE: "After Image" – Once the road diet and intersection tools were implemented, pedestrians now only cross 14 feet at a time.

NOTE: "After Image" - Now pedestrians cross 14 feet at a time and the pedestrian refuge island allows pedestrians to cross one travel lane at a time, making the crossing far less complex because pedestrians pay attention to one lane of traffic at a time.

NOTE: Another "before image" of La Jolla Boulevard. Participants in walking audits often ask, "What does a "complete street" look like?" The best response to this question comes from the Complete Streets Coalition: There is no singular design prescription for Complete Streets; each one is unique and responds to its community context. A complete street may include: sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more. A complete street in a rural area will look quite different from a complete street in a highly urban area, but both are designed to balance safety and convenience for everyone using the road. To learn more, visit: http://www.flickr.com/photos/completestreets/sets/72157617261981677/

NOTE: Another "after image" of La Jolla Boulevard.

NOTE: Another "before image" of La Jolla Boulevard, San Diego, CA.

| Slide	Notes
	NOTE: Another "after image" of La Jolla Boulevard, San Diego, CA, with a driver moving from the transition lane into the thru lane.
	NOTE: La Jolla Boulevard today is lively and friendly to users of all ages and abilities. What are some of the benefits of Complete Streets? The National Complete Streets Coalition has developed fact sheets which describe the benefits of Complete Streets and they can be found here: http://www.completestreets.org/complete-streets-fundamentals/complete-streets-faq/.
	NOTE: La Jolla Boulevard, San Diego, CA encourages all modes, ages and abilities. It is a complete street.
	NOTE: The village of Hamburg is centered around a local commercial district along Route 62. The highway, which also serves as a major truck route, was often congested and presented hazards for cyclists and pedestrians. Business along the route had declined, with many shoppers lured elsewhere by franchises and big box retailers. In 2001, the New York State Department of Transportation (NYSDOT) was planning a $23 million revitalization of a 1.6 mile section of Route 62 in Hamburg. When their plan was released, however, the community felt the initial design placed too much emphasis on moving vehicle traffic efficiently—widening roads and reconfiguring signalized intersections—and neglected other modes of transportation. Since the plan was implemented in 2001, accidents on the street have been dramatically reduced. Congestion has been minimized, reducing carbon emissions from idling cars. The design has received a number of top design awards, including the AASHTO Innovative Management Award for a Small Project, and was recognized as a USDOT Top 10 Nominee for Outstanding Projects. It has also received awards for public process.

Slide
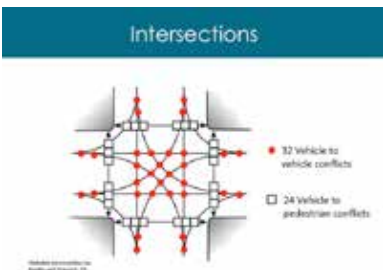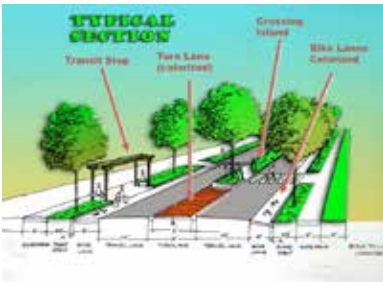
Notes

NOTE: The colorized bike lanes, high-intensity and well-signed crossings, narrowed mid-block crossings, inset parking, trees and pedestrian scaled lighting and signage all speak to a complete street that also functions beautifully as a main trucking route, while respecting the heart of the community.

NOTE: US 62 in Hamburg, NY works for all users. A complete street anticipates the complexity of users' needs and aims to accommodate and integrate the modes.

NOTE: The image above shows a typical section of a street with elements that support walkability.

NOTE: The image above shows a commercial section that supports walkability.

NOTE: In 2009, there were 33,808 fatalities on our Nation's roadways. Of these, 7,043 (20.8% of total fatalities) were intersection or intersection related.

An intersection is a planned point of conflict in the roadway system. With different crossing and entering movements by both drivers and pedestrians, an intersection is one of the most complex traffic situations that users encounter. Dangers are compounded when we add the element of speeding motorists who disregard traffic controls. To learn more, visit: http://safety.fhwa.dot.gov/intersection/. The diagram shows the 32 vehicle to vehicle conflict points and 24 vehicle to pedestrian conflict points at an intersection.

Slide	Notes

Slide   **Notes**

NOTE: At a roundabout, there are 8 vehicle to vehicle conflict points and 8 vehicle to pedestrian conflict points. Many communities are looking at roundabout-first intersection policies to reduce the severity and frequency of accidents. To learn more about roundabouts as a proven safety countermeasure, go to: http://safety.fhwa.dot.gov/provencountermeasures/fhwa_sa_12_005.htm
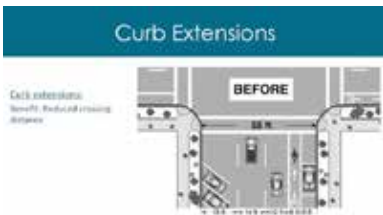
NOTE: "Before image" - click to see curb extensions move in. Curb extensions, also known as bulb-outs or neck downs, extend the sidewalk or curb line out into the parking lane, which reduces the effective street width. Curb extensions significantly improve pedestrian crossings by reducing the pedestrian crossing distance, improving the ability of pedestrians and motorists to see each other, and reducing the time that pedestrians are in the street. To learn more about curb extensions, visit: http://safety.fhwa.dot.gov/saferjourney/library/countermeasures/23.htm

NOTE: "After image" - see the curb extensions move in. Curb extensions, also known as bulb-outs or neck downs, extend the sidewalk or curb line out into the parking lane, which reduces the effective street width. Curb extensions significantly improve pedestrian crossings by reducing the pedestrian crossing distance, improving the ability of pedestrians and motorists to see each other, and reducing the time that pedestrians are in the street. To learn more about curb extensions, visit: http://safety.fhwa.dot.gov/saferjourney/library/countermeasures/23.htm

NOTE: Through a number of intersection tools, we can shorten crossing distances and help the modes anticipate and respond to one another better. Note how the bulb-outs, colorized crosswalks and reduced crossing distances in the image above create a more welcoming, accessible environment for pedestrians.

NOTE: In July 1999, the U.S. Department of Transportation issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in Federally-assisted programs is governed by the USDOT regulations (49 CFR part 27) implementing Section 504 of the Rehabilitation Act (29 U.S.C. 794). The FHWA has specific ADA policies for statewide planning in 23 CFR 450.220(a)(4), for metropolitan planning in 23 CFR 450.316(b)(3), and for the NEPA process in 23 CFR 771.105(f). These regulations require application of the ADA requirements to Federal-aid projects, including Transportation Enhancement Activities. To learn more, visit: http://www.fhwa.dot.gov/environment/transportation_enhancements/guidance/te_ada.cfm.

Slide

Notes

In the image, a misplaced curb cut forces the user into the intersection and then he must travel back to the crosswalk because the two are not in alignment. This is a common problem at intersections. Curb cut locations and crosswalk locations should be noted during the walking audit.

NOTE: The diagram above shows the level and landing area width desired and needed for turning movements.
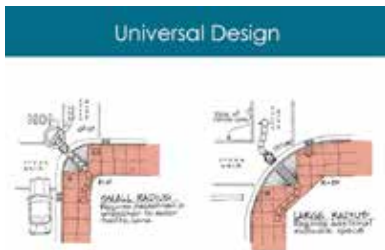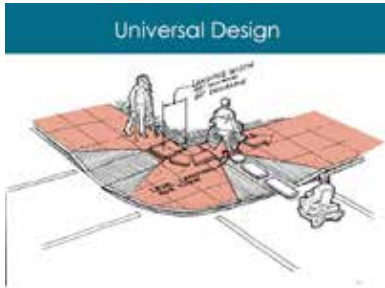
NOTE: The diagram above show how curb cuts often wrongly place the user directly into the intersection, rather than into the crosswalk. A larger radius and properly placed curb cuts can allow a wheeled user to angle properly into the crosswalk.

NOTE: In the image above, the cross walk and curb cut are not in alignment. Turning vehicles would not anticipate a user at the curb cut because of where the crossing is marked. Not only is the pedestrian hidden, but the location of the curb cut is where the motorist would begin to accelerate post turn, creating a dangerous situation for all road users.

NOTE: The built environment, and especially streets, can affect health and well-being by either encouraging or discouraging physical activity. In too many communities, pedestrians are forced into the street because adequate facilities are not in place.

NOTE: Often obstructions, such as with the utility poles in the slide above, create a barrier to accessibility. In this case, users are forced out into travel lanes to continue on.

Slide	Notes

Slide   **Notes**

NOTE: Accessible designs are useless if maintenance is neglected and sidewalks are allowed to degrade to a state where they cannot be used or must be avoided during travel. Frequently identified roadway safety and sidewalk design problems include:

- Sidewalk surfaces in poor repair, such as uneven or broken concrete and slabs uplifted by tree roots; and
- Lack of regular sidewalk maintenance, including overhanging trees and excessive snow on sidewalks.

Learn more about facility maintenance here: http://www.fhwa.dot.gov/environment/sidewalk2/sidewalks210.htm and http://guide.saferoutesinfo.org/engineering/sidewalks.cfm#ada

NOTE:
Section 2. "How Welcoming" focuses on User Comfort.

NOTE: The built environment is either supportive or intolerant to walkability. The images above show those areas that are openly hostile to walkability and those that have demonstrated noteworthy support of walkability given their design. Note the features on each of these elements to determine why they appear in the category they are in.

NOTE: When we consider "how welcoming" a place is, it is useful to vision what it might be. Here, under-utilized space is transformed into a pocket plaza to allow the local coffee shop to provide outdoor seating, which can energize an entire street. See slides 52 and 53 to see the potential in this under-utilized place.

NOTE: When we consider "how welcoming" a place is, it is useful to vision what it might be. Here, under-utilized space is transformed into a pocket plaza to allow the local coffee shop to provide outdoor seating, which can energize an entire street.

Slide

Notes

NOTE: Providing outdoor seating and places to "linger" is important for a community. In the heart of many communities, we have overly-signed against "loitering" without realizing that providing places for people to stop, sit, chat and shop is what downtowns are for. On a walking audit, note how many "prohibitive signs" exist (these are the DO NOT signs in a community) versus how many signs instruct users on desirable behaviors.

NOTE: This section will look at "How Convenient" the built environment is by assessing Land Use, Connectivity, and Transit

NOTE: As we think about how we want our streets to perform, noting the key features that align with creating a convenient community is essential. If we have "superblocks" – which are unwalkable or fail to build to a "human scale" in order to accommodate cars-first, the result is a place where people don't want to be. On a walking audit, participants pay attention to the form and scale of the built environment: how buildings watch over the street, the design speed of streets, how the built environment encourages people to be there, and the opportunities for switching between modes (walking, bicycling, driving or using transit). When we find ourselves in an environment in which we feel exposed, vulnerable or unsafe, we try to get out of that environment as quickly as possible.

NOTE: To understand how a street either functions for users or does not, look at the categories provided in the slide above and the variation between unwalkable to walkable communities. Note the physical characteristics and the integration of land use and transportation systems in creating a place that works for those on foot.

Commercial district sidewalks go from places that are quite barren, stark, hot, abused, full of barriers and void of meaning, to those with stronger compelling edges that are orderly, clean, respectful lines, with adequate widths, and some building articulation and transparency, to those chock full of strong, compelling edges, a sense of enclosure and vibrant life. The best sidewalks offer buildings and place that have an organic, never finished, feel to them that invites comfort. Such a joy!

Slide

Notes

NOTE: Planter strips provide essential physical and visual separation from traffic. The best planter strips offer an absence of asphalt, or give a good screen to a nearby drive or parking lot. The bottom scene provides ample night lighting, a variety of color. The sidewalk is great, but it is the planter strips that bring out the power of place. These trees are still young, and when they mature, this place becomes a cathedral.
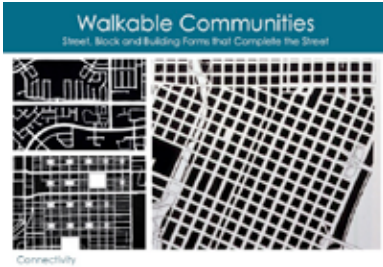
NOTE: Connectivity encourages or discourages walkability by linking origins and destinations that are within walking distances.

NOTE: Street qualities start at the edge and work inward. They range from naked streets, dishonoring historic homes. Those with respectful dimensions, a pleasant edge and walkway, a colorful and helpful median that makes street crossings safer. A great street is one that honors the history of place, nature, social life, home values and people. Great streets only get better over time, while those that lack basic element struggle to hold onto home values, purpose and meaning.

NOTE: To understand how a street either functions for users or does not, look at the categories provided in the slide above and the variation between unwalkable to walkable communities. Parks and public plazas can vary in size, but they only come to life when people feel watched over, when their edges are meaningful, and when there are fun activities. The goals should be parks placed well in the center of a neighborhood that invite in the entire community.

NOTE: Driveways and alley entries are high risk locations for people on foot. The wider and faster the highway, the more risk posed to pedestrians, especially from left turning motorists.

Bringing entries down to a minimum needed for access, and lower speed departures from the main road are ideal. This is true of both suburban and urban areas. Meanwhile, the motorist should feel that they are intruders into the sidewalk, and not the other way around. Use of color, texture helps with this.

Slide

Notes

NOTE: Alleys serve the role of having a place for open air, utilities, access to trash, and even a bit of shade. They range from unattractive places to green, organic, special spaces. A near perfect alley is complex, a place to socialize, with good lighting, low speed, a place for commerce and living, all while handling utilities.

NOTE: Buildings offer surveillance (eyes on the street) that invite or repel walking. To maximize security they do this through transparency, made up of location and window glazing. Windows should offer 70-90% glass, and be at the sidewalk, never setback. A fabulous street is made up of many blocks that pack in and invite many people to stay on the street and further activate spaces. To do this there can be no voids in building behaviors, and when this chemistry is right, this becomes a common, if not fully natural, scene. People linger, watch over the street and offer protection. This invites in more people still.

NOTE: Many communities offer a four foot minimum requirement for sidewalks and this, typically, does not work. In the image above, note the difficulty with which two people can walk side by side on a four foot sidewalk. When possible, six to eight foot sidewalks are best. However, in busy urban centers, sidewalks can range to 30+ feet. When designing any part of the community, anticipate the users and design to encourage use.

NOTE: The section looks at "How Safe" a community feels by addressing those elements that increase perception of safety.

NOTE: This slide will transition in layers (slides 66 – 69) to show the difference between a place that is void of life to one that feels watched over, secure and comfortable. How we orient our homes, sidewalks, cross-walks, parks, seating and signs influences how we respond. When a place is void of activity, look to the visual cues in place that encourage people to shun it. Credit: Steve Price

Slide

Notes

NOTE: This slide will transition in layers to show the difference between a place that is void of life to one that feels watched over, secure and comfortable. How we orient our homes, sidewalks, crosswalks, parks, seating and signs influences how we respond. When a play is void of activity, look to the visual cues in place that encourage people to shun it. Credit: Steve Price

NOTE: This slide will transition in layers to show the difference between a place that is void of life to one that feels watched over, secure and comfortable. How we orient our homes, sidewalks, crosswalks, parks, seating and signs influences how we respond. When a play is void of activity, look to the visual cues in place that encourage people to shun it. Credit: Steve Price

NOTE: This slide will transition in layers to show the difference between a place that is void of life to one that feels watched over, secure and comfortable. How we orient our homes, sidewalks, crosswalks, parks, seating and signs influences how we respond. When a play is void of activity, look to the visual cues in place that encourage people to shun it. Credit: Steve Price

NOTE: In the slide above, note how it feels to 1) look down a wide street on which one developer built to the street while the other turned his back on the street; 2) how it feels to be next to a large wall with no transparency; and 3) how it feels in front of a row of homes that watch over the sidewalk. We need to encourage development that works together, rather than allowing conflicting approaches that devalue one investment.

NOTE: We feel safer both inside and outside places when we have a high degree of transparency. Note how inviting the eatery on the left image is because of the plantings and windows which encourage those walking by to look in. Note how the sport's club on the right aims to wall out the community it finds itself in. It's hard to encourage flow when we limit transparency. The City of Arlington, Virginia, does a nice job of explaining Urban Design guidelines here: http://www.arlingtonva.us/departments/CPHD/forums/clarendon/pdf/file58740.pdf

Slide

Enclosure

Walkable Community Principles

Part II: Deterrents to Walkability

Incomplete Streets

Notes

NOTE: The lack of enclosure in the left hand slide creates a feeling of vulnerability in pedestrians who must watch for cars turning in and out. On the other hand, the right hand slide shows a built form with a sense of enclosure due to the trees, awnings and building placement. Even though cars will be parking and unparking, users feel comfortable eating and chatting in the image at right. This restaurant benefits from the design of the built environment. The restaurant in the slide at left turns its back on the built environment because it is not a place where people want to linger. A sense of enclosure makes people feel more comfortable.

NOTE: The following sources can provide additional information on building healthy communities:
Active Living by Design
http://www.activelivingbydesign.org/
Active Living by Design "is a national program of The Robert Wood Johnson Foundation and is a part of the UNC School of Public Health in Chapel Hill, North Carolina. This program establishes and evaluates innovative approaches to increase physical activity through community design, public policies and communications strategies.
Designing and Building Healthy Places
http://www.cdc.gov/healthyplaces/
This useful site covers a lot of ground: healthy environments, poorly planned growth, healthy community design and healthy places envisioned. In keeping with its efforts to promote healthy design, CDC provides articles on physical activity, respiratory health, children's and elder's health, injury, mental health, social capital, accessibility, and water quality. Also see: The University of Washington North West Public Health Journal for more information: http://www.nwpublichealth.org/web-specials/built-environment

NOTE: Part II of this presentation focuses on Deterrents to Walkability by providing examples of common deterrents to walkability. Part III of this presentation focuses on Treatments to Encourage Walkability.

NOTE: As described by the National Complete Streets Coalition, streets that are "incomplete" – in other words, that don't support all users – tend to hinder economic growth and can result in lost business, lower productivity, and higher employee turnover. These are examples of streets that aren't complete, and these are places where businesses may struggle over time. Over the past two decades, we have averaged approximately 43,000 fatal accidents annually, with approximately 2.5 million people injured on our roadways every year. Of the pedestrians killed in 2007 and 2008, more than 50 percent died on arterial roadways, typically designed

Slide

Notes

to be wide and fast, and more than 40 percent of the pedestrian deaths that occurred were on roadways where no crosswalk was available. Motor vehicle crashes are the leading cause of death for U.S. teens, accounting for more than one in three deaths in this age group. In 2009, about 3,000 teens in the United States aged 15–19 were killed and more than 350,000 were treated in emergency departments for injuries suffered in motor-vehicle crashes. We also know that traffic crashes cost about $164 billion annually in property damage and injuries.

Pedestrian Obstructions

NOTE: On a walking audit, note how many pedestrian obstructions participants come across. Be warned: once participants start looking, it's hard not to notice them everywhere. Parking meters, landscaping beds, and parked vehicles are some examples of pedestrian obstructions in the slide above.

Improperly Placed Signals

NOTE: Improperly placed signals and wrong signal timing are common problems. Often, a pedestrian must push a button in order to be given the "right" to cross a street. Whenever possible, WALK signals should automatically recall to WALK when it is safe for pedestrians to cross. Countdown signals allow pedestrians knowledge as to whether they can cross in the remaining allotted time. Note the location of the crosswalk and the location of the WALK signal in the slide above.

Improperly Placed Driveways

NOTE: Improperly placed driveways with wide turning radii are a danger to all modes, but especially to pedestrians. In the slide above, shrubbery and the utility box further hide pedestrians but note the turning marks from drivers cutting the corner. To learn more about access management, go to: http://safety.fhwa.dot.gov/intersection/resources/fhwasa10005/brief_13.cfm

Missing Sidewalks

NOTE: Of the pedestrians killed in 2007 and 2008, more than 50 percent died on arterial roadways, typically designed to be wide and fast, and more than 40 percent of the pedestrian deaths that occurred were on roadways where no crosswalk was available. Often, pedestrians find themselves stranded between sidewalks – in an unwalkable zone – due to broken connectivity like in the slide above. Pedestrians can either walk through parking lots or on the street edge, but both are uncomfortable experiences.

Slide	*Notes*

Lack of Marked Crossings

NOTE: In the slide above, a family "runs for it" across a 45mph arterial with no pedestrian amenities or marked crossings. Because this is a multiple lane road, the risk they are taking is immeasurable. A multiple-threat crash involves a driver stopping in one lane of a multilane road to permit pedestrians to cross, and an oncoming vehicle (in the same direction) strikes the pedestrian who is crossing in front of the stopped vehicle. This crash type involves both the pedestrian and driver failing to see each other in time to avoid the collision. Speed matters: hit by a vehicle traveling 40mph, a pedestrian has an 85 percent chance of death or incapacitating injury. Hit at 20mph, a pedestrian has a 5 percent chance of death or incapacitating injury.

Building Setbacks

NOTE: Extremely large parking lots and building setbacks create an environment in which pedestrians are exposed to harsh conditions – heat or cold – and the built environment is uninspiring. Sidewalks in and out of strip development often do not exist, because no one anticipates pedestrians in this environment. Revising zoning codes and ordinances for minimum parking requirements and required building setbacks is a key component of building walkable communities.

No Pedestrian Scale

NOTE: Unfortunately, over time, we have designed our communities to give preference to motor vehicles in such a way that the entire scale of the built environment is for the vehicle, not a person. The visual clutter of over-sized signage speaks to communicating to drivers on their way, not pedestrians. Over-sized signage is an indicator of a "drive thru" community.

No Edge, Buffer or Enclosure

NOTE: Unfortunately, over time, we have designed our communities to give preference to motor vehicles in such a way that makes activities like walking difficult and, in some places, impossible. In too many places, walking for transportation or recreation just isn't feasible or safe. In the image above, the street transitions into a parking lot in a way that encourages high speed turnouts. There are too many conflict points for a pedestrian to feel comfortable following the existing sidewalk line. The setback development, at right, forces the pedestrian to follow the building line and then rejoin the existing sidewalk after the parking lot. This zigzagging of sidewalks creates uncomfortable and broken connectivity, since nothing joins the building's sidewalk to the street's sidewalk. Such wide open, unenclosed and un-buffered places encourage higher speeds and discourage active transportation.

Slide

Notes

NOTE: In the slide above, drainage outside an elementary school is where a bicyclist would ride. Too often, drainage and utility placement create obstructions to pedestrians and bicyclists. Furthermore, they make a clear statement to discourage active transportation. On a walking audit, note how many obstructions exist on the sidewalks when they do exist.

NOTE: Too often, we are given conflicting messages which make walk-ability challenging. In the slide above, signage very clearly points to a school zone, notifying motorists to anticipate children walking to and from school. However, this mother and child are forced to walk out in the street in a known school zone because one block of sidewalks is missing. Note, too, how the crosswalk fails to align with the curb cut as in the slide above.

NOTE: In the slide above and in the following slide, note how utility poles and bracing lines are placed directly within the sidewalk. We would never think to place a utility pole in the center of a vehicle lane, but we regularly interrupt pedestrian movement through such obstructions. This is one of the most common deterrents to walkability, making a clear statement as to the value of the pedestrian realm.

NOTE: Pedestrian obstructions in the middle of the sidewalk.

NOTE: The scene above is, unfortunately, a common scene. Our sidewalk systems are crumbling and create tripping hazards. Additionally, such lack of investment in the maintenance or upkeep of the built environment speaks to our values and how welcoming the built environment is for all modes.

Slide

Notes

NOTE: In a study of design factors that affect driver speed on suburban arterials, lane width reductions correlated with 1.8 mph reduction from a 12-foot lane to an 11-foot lane and 6.5 mph 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 (Swift, 2006).

NOTE: In the slide above, the yellow line shows how far one would need to walk, bike or drive in order to get to a street that can be seen. Broken connectivity adds extra pressure to fewer roads to carry a larger burden. It also discourages active transportation because a pedestrian or bicyclist must go out of their way, adding extra miles, in order to visit a friend in the neighborhood.
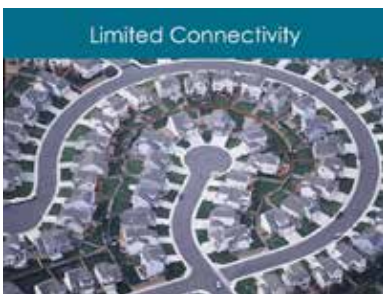
NOTE: In the case of new communities, we should avoid the so-called stick-and-lollipop form of development that reduces the street network and cuts people off from their neighbors and the places they need to go.

NOTE: In the image above, a child needs to walk or ride his bicycle past 50 driveways to visit his next door neighbor.

NOTE: Traditional development integrated our land uses, placing schools, parks, shopping and housing within walking distance. This allowed the majority of our trips to be "internal" or within our community, which makes walking easier. Sprawling development patterns have changed how we access goods and services. Segregated land uses in which residential is kept apart from commercial and schools are sited on large tracks away from other uses, requires that we get into our cars and leave our neighborhoods to meet our daily needs. When 100% of our trips are external – meaning that we need to leave where we live in order to access goods and services – we discourage walkability.

Slide
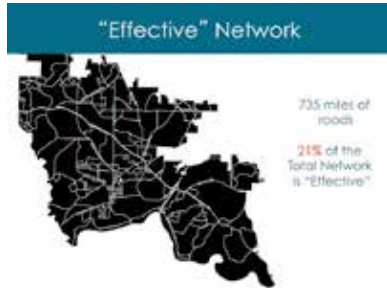
Notes

NOTE: Compare the street network with the "effective" street network on the following slides. This slide shows all streets; the next slide shows connectivity.

NOTE: Broken connectivity places a greater burden on the connected streets to do the heavy lifting. Congestion increases with broken connectivity and it also forces all users onto a limited network of streets, which can make walkability and active transportation challenging.

NOTE: Due to a barricade that breaks the network, note how far drivers need to travel between the origin and destination.

NOTE: As compared to the slide before, once the barrier is removed, note the distance between the origin and destination. On a walking audit, participants should note barriers to the network and how connectivity might be improved. Reducing distances between places encourages walkability.

NOTE: The following series of slides, slides 98 – 105, explain how street network can either add to congestion by limiting choices or improve congestion by providing numerous options and distributing the load of vehicles.

Slide

Notes

NOTE: In many conventional sub-divisions, residents have one way in and one way out. In our hypothetical community above, this places 500 vehicles per day on one street.

NOTE: The image above shows how the 500 vehicles per day would have to come in and leave in the same way and the anticipated load on the street based on the location. So, for those residents who own homes at the entrance to this development, they will see more cars per day going by their house than those living at the cul-de-sac.

NOTE: If we made the connection and removed the cul-de-sac, now residents can circulate. The one street in still carries 500 vehicles but then motorists can head right or left, potentially distributing the flow of vehicles in a more reasonable way.

NOTE: If we were to add additional network and provide two ways in to this development, we can take the burden off the one previous road and see how the vehicle distribution patterns change.

NOTE: Again, by adding network, we can see how the vehicle distribution pattern changes when we have four ways in or out of a development.

Slide	**Notes**

Slide | **Notes**

<table>
<tr><td></td><td>NOTE: If we were to switch to a grid system, the load each street bears if far less. Motorists have opportunities to get around obstacles and to take their preferred route. We are less likely to see stacking vehicles and there is better distribution within the development.</td></tr>
<tr><td>Improving Connectivity</td><td>NOTE: Depending on the tightness of the grid, we can continue to play with the numbers in order to provide options and change the distribution patterns of vehicles in a community. On a walking audit, noting the connectivity and network of streets in an area will help participants understand why congestion is occurring and where obstacles to walkability exist.</td></tr>
<tr><td>Part III: Tools to Encourage Walkability</td><td>NOTE: Part III of this presentation offers tools that a community can use to encourage walkability.</td></tr>
<tr><td>People vs. Automobile Focused Design</td><td>NOTE: The graphic above explains the difference between automobile focused design and people focused design. You can download the entire graphic here (The poster prints nicely at 22"x 28"): http://walklive.org/wp-content/uploads/2011/04/Townmakers-Guide-Poster.pdf. Note how edges, sidewalks, parking, building location, architectural character and edges impact walkability.</td></tr>
<tr><td>Healthy School Siting</td><td>NOTE: The graphic above explains how a school can be sited to encourage Safe Routes to School and to build a sense of community and place. You can download the entire graphic here (The poster prints nicely at 22"x28"): http://www.walklive.org/wp-content/uploads/2011/04/Livable-Schools-Poster.pdf. Note how streets, parking, crossings, drop-off/pick up areas, security, trees, separation of uses, shared spaces, intersections, sidewalks and access impact our ability to walk to school.</td></tr>
</table>

Slide	Notes
Steps to Walkability *Land Use* *Transportation Systems* *Users' Behaviors* *Overall Impression*	NOTE: This slide provides a bulleted list of those elements that encourage walkability based on land use, transportation systems, and users' behaviors. On a walking audit, these elements will provide participants with an overall impression of how well the land uses and transportation systems are supporting each other.
Plan for Walkability	NOTE: In the image above, a teacher has brought her class to meet with city staff in Glendale, Colorado, in order to understand how planned improvements will impact the community. We need to plan for walkability and bring vulnerable populations (those who are too young or too old to drive or who cannot afford private transportation) to planning commission and council meetings in order to understand planned improvements and how they impact quality of life.
Use Treatments to Support Walkability	NOTE: In order to feel comfortable walking in an area, humans like: transparency or "eyes on the street"; a buffer between us and moving objects; a 5' minimum sidewalk width so that we can walk side by side; and the ability to anticipate our interaction with others. The features that support walkability are explained in the following slide.
	NOTE: See the tags on the slide.
Crosswalk Visibility Crosswalk Marking Types	NOTE: The visibility of crosswalks to the driver varies by type; those with markings parallel to the driver's viewpoint are the most visible.
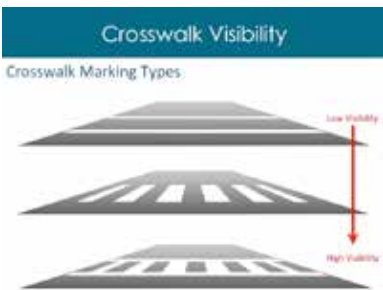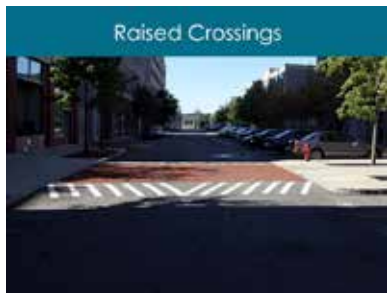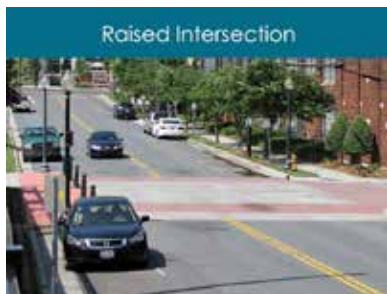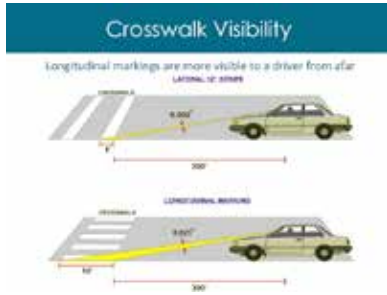
Slide	Notes
	NOTE: Longitudinal lines offer more surface area to be seen by the driver.
	NOTE: Crosswalk types
	NOTE: Crosswalk types
	TOOL: Raised Intersection: Raised intersections are used at intersections where roundabouts or mini-circles are not functional or practical, and where speeds need to 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.
	TOOL: Raised mid-block 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.

Slide

Notes

TOOL: Raised Crossings: 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.

TOOL: Bold Signage: 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.

TOOL: 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.

TOOL: 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.

Slide

Notes

TOOL: 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 interfere 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.

NOTE: Reducing crossing distances through right-sized travel lanes along with a median or pedestrian refuge island makes crossing streets safer for all users. To learn more about the safety benefits of raised medians, see: http://safety.fhwa.dot.gov/ped_bike/tools_solve/medians_trifold/

NOTE: Building bike lanes, pedestrian projects, and bike boulevards creates more jobs per million dollars spent than road repairs and road resurfacing projects. American Recovery and Reinvestment Act investments in public transportation created almost twice as many jobs per billion dollars invested as highway projects—16,419 versus 8,781 job months. To learn about the benefits of bike lanes for all users, see: http://library. michigantrails.org/on-road-biking/benefits-of-highway-shoulders-and-urban-bike-lanes/

NOTE: Colorized bike lanes can be used to indicate conflict points or to continue bike lanes through intersections.

NOTE: 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

Slide

Notes

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
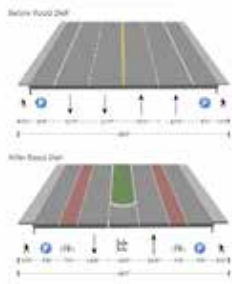
NOTE: The image above shows the transition from a 4-lane undivided street to a 2-lane with shared center turn lane.
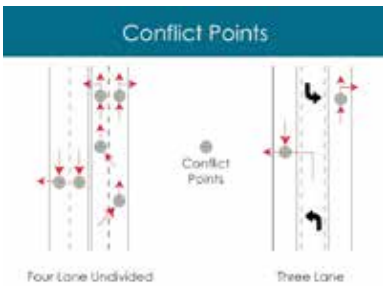
NOTE: This slide explains the conflict points at a 4-lane undivided highway versus a 2-lane with shared center turn lane.
Credit: Based on original images by Michael Ronkin
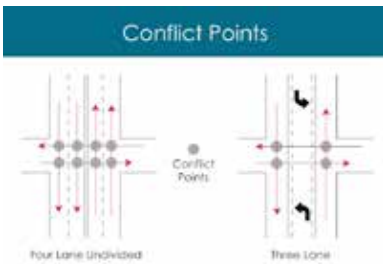
NOTE: This slide explains the conflict points at a 4-lane undivided highway versus a 2-lane with shared center turn lane at an intersection.
Credit: Based on original images by Michael Ronkin
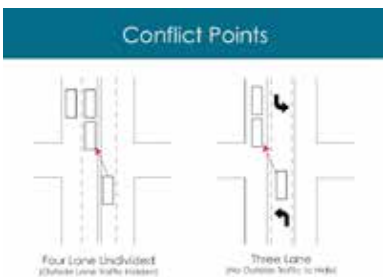
NOTE: This slide explains the conflict points at a 4-lane undivided highway versus a 2-lane with shared center for left-turning vehicles.
Credit: Based on original images by Michael Ronkin

Slide	Notes
The Roundabout	NOTE: At a roundabout, there are 8 vehicle to vehicle conflict points and 8 vehicle to pedestrian conflict points. Many communities are looking at roundabout-first intersection policies to reduce the severity and frequency of accidents. To learn more about roundabouts as a proven safety countermeasure, go to: http://safety.fhwa.dot.gov/provencountermeasures/fhwa_sa_12_005.htm.
Roundabouts & Pedestrians	NOTE: This slide and the following two slides explain how a roundabout works for a pedestrian; note how the pedestrian only has to look at one lane of traffic at a time in this case. The roundabout slows vehicles on approach, the pedestrian crosses one lane at a time, the pedestrian can wait in the pedestrian refuge island, if necessary, drivers yield due to speed and vehicle ahead yielding and it's easier for person and driver to make eye contact.
Roundabouts & Pedestrians	NOTE: As the pedestrian crosses, the approaching driver sees her and yields. The driver is very likely to yield because the car in front of him also is yielding as it heads into the roundabout, so there is no need to try to beat the pedestrian.
Roundabouts & Pedestrians	NOTE: Now the driver has yielded, the pedestrian is across and nobody has been delayed. In fact, roundabouts move traffic very efficiently, usually more efficiently than four-way signals.
How Walkability Happens	NOTE: The following sequence of slides (136-141) shows how improvements can be layered in to change a built environment from auto-focused to walkable. At each level, note the design features that are encouraging walkability.

Slide	Notes
	NOTE: Transition 1: Add in colorized parking lanes, a curb and sidewalk, pedestrian scaled lighting, a median to visually narrow the street, landscaping treatments and a transition zone between parking and the thru lane. Credit: Steve Price
	NOTE: Transition 2: On-Street parking utilized, creating a buffer between moving vehicles and the sidewalk. Credit: Steve Price
	NOTE: Transition 3: As the tree canopy matures, a greater sense of enclosure happens and we feel more comfortable. Credit: Steve Price
	NOTE: Transition 4: Adding in a gateway feature, such as a roundabout with a specimen tree species, ties the area together. Credit: Steve Price
	NOTE: Transition 5: Bringing the buildings to the sidewalk edge so that there is no setback and adding people completes the street. Credit: Steve Price

Slide	Notes

Slide
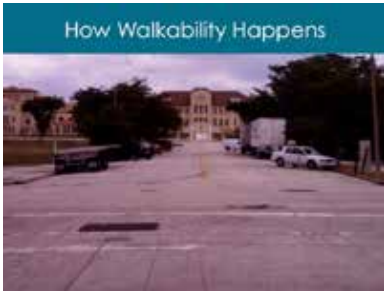
Notes

NOTE: We also have real-world examples of invigorating a downtown setting by completing the street. In downtown West Palm Beach, Florida, streets had been designed to move cars through quickly without stopping. The downtown property vacancy rate was about 80 percent and the city was $10 million in debt. Street crime also was common. So the mayor, in an effort to revitalize downtown, started looking at how transportation investments could help transform the area, and started to focus on getting the streets right, adding pedestrian crossings, calming the traffic and installing street-scaping and landscaping. This is the before picture; scroll to the next slide to see the after image.
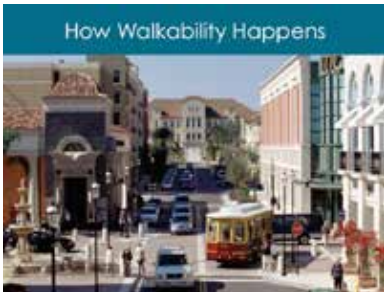
NOTE: After image: Today, downtown West Palm Beach is booming and has an 80-percent occupancy rate. Property values have soared. And it started with a focus on the street and a focus on walkability.

NOTE: Looking at the image above, what features could be added to complete the street and make the area more supportive of walkability? Credit: Walkable and Livable Communities Institute

NOTE: What did you suggest to improve walkability? How does it compare with the information in the slide above? Credit: Walkable and Livable Communities Institute

NOTE: Looking at the image above, what features could be added to complete the street and make the area more supportive of walkability?

Slide

Notes

NOTE: What did you suggest to improve walkability? How does it compare with the information in the slide above? Credit: Walkable and Livable Communities Institute

NOTE: Looking at the image above, what features could be added to complete the street and make the area more supportive of walkability?

NOTE: What did you suggest to improve walkability? How does it compare with the information in the slide above?
Credit: Walkable and Livable Communities Institute

NOTE: Active Transportation in Madison, WI. A 2011 study published in Environmental Practice shows that cities with high rates of bicycling have a much lower risk of fatal crashes for everyone, including people in cars, on bikes and on foot. The difference is significant: risk of death was more than twice as high in the cities that are less bikeable. Walkability and bikability go together as bike lanes provide an added buffer for pedestrians. Additionally, the more people out being active, the better.

NOTE: Let's support active Living from childhood on.

Slide

Notes

NOTE: Let's support active Living from childhood on.

NOTE: This presentation was created by the Walkable and Livable Communities Institute. It can be modified for your presentation needs. Please credit the source materials as: Walkable and Livable Communities Institute/ www.walklive.org.

Presentation 3. Practicing Assessment

Slide

Practicing Assessment

Walkable OR Not Walkable?

Notes

NOTE: As participants get ready to assess the built environment through a walking audit, one way to test readiness is to practice assessment. The following slides provide images and participants should determine whether the built environment is walkable or not walkable. The criteria used to determine walkability was presented in the Walkability: Principles, Deterrents and Treatments presentation. This synthesis allows the facilitator to determine whether key principles are understood before the team or individuals head into the field for the assessment. Use the following criteria to generate conversations about what is walkable versus not-walkable:

Land Use
  • Compact, lively town center or neighborhood
  • Inviting public spaces (green spaces, parks, plazas)
  • Neighborhood amenities meet needs within a ¼ of a mile (grocer, school, medical)
  • Inspiring, well maintained streets that reinforce place
  • Diversity of prices and stock (well-maintained homes/businesses)

Transportation Systems
  • Right-sized street with design speed matching the posted speed
  • Traffic volume and speed distribution as expected
  • Street treatments to encourage active transportation
  • Connected network of streets, trails and transit

Users' Behaviors
  • Evidence of diverse users (age, income, ability)
  • Active transportation evident (pedestrians, bicyclists, transit)

Overall Impression
  • Land uses and transportation system integrated to support one another

The following slides provide rural, suburban and urban conditions in order for participants to practice their assessment skills.

NOTE: In determining whether an area is walkable or not, participants should discuss land use, transportation systems, treatments to support walkability, deterrents to walkability and user behaviors. These items were explained during the introductory presentations, so the example below provides what respondents may notice based on those presentations. Depending on the technical skill and interest of participants, facilitators should recognize that observations will vary.

Example observations on walkability follow:

Neighborhood collector; light activity but well-maintained. Landscaped Median. Buffering between cars and sidewalks is good. Pedestrian and vehicle scaled lighting. Clean, well-maintained landscaping. No trash cans

Slide

Notes

or seating. Some amenities (school, housing, church) but neighborhood grocer is not evident. Some setbacks on newer development - not honoring the history of the street. Overall, well maintained properties. Light traffic observed; some queuing of vehicles with signalization sequence. Median provides refuge for pedestrians, but no visible crosswalks. Some signage to indicate pedestrians present. No bike lanes. No curb cuts. No transit observed during audit. No trails observed. Very little active transportation. Mostly single occupant vehicles. Some school traffic. Overall impressions: well-maintained area that could use some improvements (bike lanes, crossings, signage, seating) to enhance walkability. Overall, this is walkable but walkability could be enhanced through additional street treatments. Drivers are traveling just slightly over the posted speed. Walkable.

NOTE: Example Observation on Walkability:
Some businesses, mainly geared to automobiles. Some green/ open spaces but they are disconnected islands because of the streets. Users drive to local parks and schools. Signs are scaled to the vehicle. Too many drive ways. Walking is not comfortable here. Old neighborhood development is transitioning to commercial as this area has become central to accessing state routes. Lanes are wide and cars are consistently traveling 10 mph over the posted speed. Numerous observations of vehicles making lane changes at the intersection. Signage may be in the wrong place to assist with decision making. The yellow signal interval time should be evaluated. Problems with cars exiting/entering the gas station. Congestion at peak AM and PM when heavy stacking is due to rush hour traffic. While walking is possible here, it is not pleasant. Rush hour traffic during the peak AM and PM times is challenging with aggressive behaviors and failure to yield observed numerous times. Some bicyclists in the area ride on the sidewalks and against traffic, making walking challenging. Entrance to the school and park is geared to the automobile and most users were seen arriving and departing in a vehicle. Low walkability.

NOTE: Example Observation on Walkability:
Sprawling development, geared to automobiles. Very unattractive environment which a lot of asphalt. The one pedestrian on the median waited for a considerable amount of time to cross. Failure to yield and numerous driveways make watching for pedestrians a challenge. Signs and business locations/setbacks are for the automobile. Many surface lots, driveways, parking and no edge between the street and the land uses. Lanes appear wide (auditors not comfortable measuring lanes) and cars are consistently traveling 10-15 mph over the posted speed. Numerous observations of vehicles making lane changes as the right lane slows to entering/exiting traffic. The left turn lane (at the light) does not allow enough length for the queuing cars so it blocks the left thru lane, causing aggressive behaviors (honking, yelling observed). Peak AM and PM creates heavy stacking due to rush hour traffic. Challenging for a pedestrian to cross the street,

Slide

Notes

hoping for a gap to appear. There are no bike lanes and only sidewalk fragments. The edge is not clearly defined and cars exit and enter driveways quickly. No mid-block crossings so pedestrians stand on the channel islands hoping to find a gap in traffic, rather than walking to the intersection which is poorly marked for pedestrians and lacking crossings (faded or missing). Not walkable. Really challenging to walk here. Feels like a car is needed to be in this area.

NOTE: Example Observation on Walkability:
Residential neighborhood with a neighborhood school. Well-maintained green spaces (lawn) and some investments with pavers and crossings. Somewhat inviting, but not very interesting to walk around. The school and grounds are well-maintained, as are surrounding residential properties. Investments in sidewalks, pavers, signage and crossings speak to place, but a lack of signage, wayfinding, a gateway feature and vegetation, take away from the sense of place. Pedestrians scaled lighting. The inset parking and gutter function well during drop off and pick up though some delays to the thru lane were observed. Some improvements are noticeable and may be a safe routes to school initiative. The raised crossing slows drivers. Generally, vehicles drive the posted speeds or within 5mph of the posted speed. School traffic creates stacking during the morning and afternoon pick-up/drop-off sessions. Students observed walking from the school to the residential neighborhoods. Many parents dropping and picking up students, so that does impact walkability. Good yielding behaviors observed. Good mix of students, parents, seniors and those walking. Bicycling less common and younger riders are on the sidewalks. Bike lane markings might be needed to encourage cycling. The gutter provides a good buffer between parked cars and cyclists, which prevents dooring. This is a walkable street. It lacks a bit of interest and distances between key amenities are spread out (1/4 – ½ mile) but good diversity of users throughout the day.

NOTE: Example Observation on Walkability:
A trail exists but it is not well-maintained and the surface and lack of shelter/trees make it a less than desirable route. Slurry seal shows some repairs. New striping on the center turn lane Lack of trees, wide lanes, lack of lighting, and debris on the shoulder make this a very uncomfortable place for bicycles and pedestrians. Signs for speeds are hard to find. Cars travel extremely fast (55mph) on the downslope with more reasonable speeds on the uphill climb. There is a multi-use trail but trail crossings have not been addressed. Additionally, the total exposure and lack of trees make it less desirable. A good buffer exists between the trail and moving vehicles. A lot of debris on the road and trail. Traffic is loud. Street mainly used by vehicles. Evidence that some development (residential) may take place in the agricultural lands, but no evidence of active transportation other than the bike route. This is not a walkable environment, although a trail exists to allow for walking and bicycling. The

Slide

Notes

exposure, fast moving traffic, lack of maintenance, debris on the streets, and no "eyes on the amenities" make this a lonely place to walk or bike. The distances between origins and destinations is too far to make walking make sense.

NOTE: Example Observation on Walkability:

The downtown architecture is nice. Some street trees, but they are heavily pruned. Flags and canopies exist, but placemaking could be enhanced through signage, plantings, seating, art, canopies and outside eateries. The streets are well-maintained in this downtown core, but striping is faded and crosswalks are the minimum standard. Edge stripes might assist with creating the parking buffer between moving vehicles. Pedestrian scaled lighting is nice, but ambient lighting on buildings might help reinforce a sense of place. The street doesn't speak to the history of the community through signage, plantings, or amenities. Opportunities for mixed use exist. This might reinvigorate the downtown core. Speeds are at 30mph, but 25mph would be more appropriate to the downtown core. Slower speeds would allow parking and un-parking to occur more easily. There is less pedestrian activity than expected and more vehicular traffic than expected. The crossings are wide and the turning speeds of cars was higher than expected. Yield bars would keep motorists out of the crosswalks. Bolder crosswalks might assist in this as well. Signage for pedestrians is missing. Bulb outs and curb cuts would also encourage walkability. Edge stripes would demark the parking zone better and visually narrow the street. Good diversity of users in terms of age. The weekend might provide a greater opportunity to witness the community as a whole. Does a farmer's market exist? Festival street? Given the port, it seems that this could be a very lively place, but the downtown does focus on moving traffic quickly, likely due to the port. Parking appears to be store workers/owners and this might need to be addressed as well. This is a walkable community but efforts focused on place-making may be needed. The street doesn't honor the buildings entirely - it moves traffic by too quickly – and striping, baskets, flags, banners and art might create more of a sense of place. The street feels wide, edge striping might remedy this. Colorized crosswalks, bulb outs and a façade improvement program might revitalize the main street feel. This area has a lot of potential but doesn't seem to be maximizing its resources. It might be more lively on weekends, but mid-week it was fairly quiet with drive-thru traffic to and from the industrial uses near the port and parking occupied by workers and building owners. Opportunities for mixed use development exist. Vacancy rates should be studied by an economic development department of main street program.

Slide

For More Information:

Walkable and Livable Communities Institute
1215 Lawrence Street, Unit 001
Port Townsend, WA 98368
www.walklive.org
360.385.3421

Notes

NOTE: This presentation was created the Walkable and Livable Communities Institute. It should be modified for your presentation needs. Please credit the source materials as: Walkable and Livable Communities Institute/ www.walklive.org. Facilitators should update this slide by adding their contact information.

Presentation 4. Walking Audit Survey Tool

Slide	Notes

Slide

Notes

NOTE: The Walking Audit Survey Tool is the primary document for recording the on-site walking audit assessment. It encourages participants to document observations.

How to Use the Survey Tool

Four Components:

1. Walking Audit Route Map
2. Intersection and Street Sketches
3. Survey Legend
4. General Impression Summary

NOTE: The Walking Audit Survey Tool contains the four components listed above, which are explained and modeled in this presentation.

Walking Audit Route Map

NOTE: The first component of the Walking Audit Survey Tool is the Walking Audit Route Map. This allows participants to document the overall route, noting where the audit began and where it ended. Use this margins of the map for overall issues, questions or observations on the route as a whole.

Walking Audit Route Map

NOTE: Showing the "Starting" and "Ending" locations will allow participants to showcase their results to others who may not have been able to take part in the audit, but who are interested in the observations. It also shows the direction of travel for the audit. This is important because observations change depending on which side of the street participants are assessing.

Walking Audit Route Map

NOTE: The Walking Audit Route Map should be printed with a white margin so that participants can indicate overall concerns or questions that apply to the route as a whole. This slide shows observations on Boone Road in Bryant, Arkansas, near the Bishop Park recreational facility. Participants are encouraged to ask questions and note "to do's" during the walking audit on their route map.

| *Slide* | *Notes* |

Slide

Notes

Intersection Sketch

NOTE: The second component of the survey tool is the Intersection Sketch. This allows participants to identify what is happening at an intersection. When more than one intersection will be studied as part of the walking audit, print enough copies to allow a sketch of each intersection. While some people respond to words/tags, others are visual learners. For this reason, the sketch will allow participants to draw in what they see or to use labels – either approach is fine. The goal is capture what the participant is noticing at an intersection. If the assessment includes a five or six-legged intersection or numerous driveways, these should be drawn in or tagged to show the complexity of the intersection.

Intersection Sketch

NOTE: Using labels or images, continue layering in all of the elements at the intersection: parking, landscaping, sidewalks …
Participants should note what is there and make comments on elements that are absent, but needed: lighting, litter cans, seating, shelter

Intersection Sketch
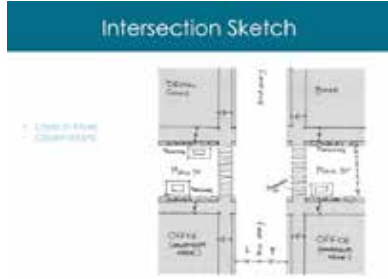
NOTE: Continue to add information to the intersection sketch, by drawing or labeling crosswalks and bike lanes, if they exist, or noting if they do not exist. If possible, measure the width and number of travel lanes. The facilitator should make two key comments when it comes to on-site technical observations: 1) participants should wear a bright vest so that they are visible to motorists and 2) if lane widths cannot be measured, that is OK as this information can be received from the state department of transportation, county or city engineer, depending on who has jurisdiction over the road. If traffic is speeding, poor yielding behaviors are observed, or the participant does not feel comfortable measuring the travel lanes, this information can be received after the audit. The travel lane is measured from the edge of the center line strip to the white edge line, curb or sidewalk. If a gutter pan exists, note the dimensions of this too. Also measure the width of the striping.

Street Sketch

NOTE: The third component of the Walking Audit Survey Tool is the Street Sketch. This allows participants to assess a corridor, by noting what is happening within the right of way and the surrounding land uses too. Images or tags can be used to capture observations. Participants should feel free to ask questions and to note how comfortable they feel in this environment. Events can be added, as well, to give a complete picture of both the on-street amenities and how the corridor is being used.

Slide

Street Sketch

Intersections & Street Sketches

- **Comfort:** Does the built environment make you feel that you belong there?
- **Safety:** Where did you feel safe or unsafe? What made you feel that way?
- **Behaviors:** Please describe pedestrian, bicyclist and driver behavior. Are people behaving with courtesy? What are people doing?
- **Overall Impressions:** Do you like being in this environment? What would make this a more welcoming environment?

Survey Legend

- Use the survey legend to capture conditions based on specific criteria.
- For those items that do not exist, you can choose "not applicable," but *if you personally feel that these items are needed,* then make a note of this on the survey legend and mark the item as "needs improvement."
- The goal of the survey legend is to document your impressions of the built environment.

Survey Legend

Survey Legend

Notes

NOTE: Continue to add in observations on what is there ... and what is not there. In the sketch above, utility lines are not observed but if they do exist, they should be noted. If the trees had been badly pruned or appeared diseased, this would be noted. Excess litter or a lack of trash cans, transit shelters, benches, and obstacles in any of the zones should be noted. Participants should also feel comfortable adding in notes about observed behaviors or comments on whether they enjoy being in this place with notes as to why or why not.

NOTE: Participants will answer questions on how comfortable they feel; how safe they feel; the behaviors they are observing; and their overall impression of the environment. Additionally, participants should begin thinking about what is needed to make the environment more welcoming for all users.

NOTE: The fourth component of the Walking Audit Survey Tool is the Survey Legend. The Survey Legend provides common criteria for assessment. Participants may not be able to provide a response for each of these elements listed, but that is OK. The Survey Legend allows participants to choose which items they wish to focus on during the walking audit and serves as a reminder of what might be assessed by participants. When groups are auditing, the Survey Legend can be divided up so that each person contributes to a master Survey Legend. Use the Survey Legend as a guide, but choose those elements that most interest or concern participants.

NOTE: The Survey Legend provides a number of criteria for assessment which are explained in the following slides. Add notes and observations to any of the elements you observe. Make a note as to why it was hard to capture the information that is missing.

NOTE: Each of us respond to the built environment differently, but the Survey Legend can be used to identify those items that "Need Improvement" are "Adequate or Not Applicable" or that are "High Quality". Notes should capture key observations or concerns based on the criteria. When participants are auditing in a group, use this opportunity to understand why something is "high quality" for one participant but shown as "needs improvement" by another. Recognizing our responses to the built environment also highlights the expectations we have ... and where we are exceeding of falling short of meeting those expectations.

Slide	Notes

NOTE: The Survey Legend begins at the Street level and this section identifies: sidewalks, bike lanes, vehicle travel lanes, driveways and parking. When assessing these amenities, participants should take photographs to go with the assessment, noting the condition, maintenance, materials used, buffering between users, and the overall behaviors observed.

NOTE: Next, participants will take a look at the bike lanes to determine whether they exist and, if they do exist, if bicyclists are using them. In the top photograph, the bike lane exists but the bicyclist feels more comfortable riding on the sidewalk. Noting behaviors will provide insight into why the bicyclist has made this choice. While measurements are a key component of the walking audit survey tool, the ultimate goal is to note what is present or absent, and how this is impacting user's behaviors and the range of experiences allowed. When assessing bike lanes, participants should take photographs to go with the assessment, noting the condition, maintenance, materials used, buffering between users, and the overall behaviors observed.

NOTE: Next, participants will assess the vehicle travel lanes. When assessing travel lanes, participants will note the number of travel lanes, lane width, posted speeds, observed speeds (High/Low), vehicle stacking or queuing, and driver behaviors. Are travel lanes striped? Is signage clear?

NOTE: When assessing driveways and parking, note the number of driveways, the distance between driveways and the intersection, and the turning radii on streets, entrances and exists. Note how fast cars appear to be making turns and whether conflicts exists during parking/unparking or entering/exiting driveways. Also note whether motorists are exhibiting friendly or aggressive behaviors when it comes to turning movements or parking/unparking.

NOTE: Intersections provide an opportunity to discuss how well the modes integrate. How complex is the intersection for motorists, bicyclists and pedestrians? Is the intersection wide or is it hard to cross in the allotted time? How visible are pedestrians? Are they hidden by grade changes or shadowing? When crossing, does the pedestrian have a refuge island or median to make crossing simpler? How exposed is a pedestrian to harsh conditions (i.e. speeding vehicles, poor drainage, lack of shelter or multiple travel lanes that must be crossed)? Assessing amenities is a critical part of the survey tool, but participants should also observe behaviors over two or three full cycles. Watching user's behaviors and noting pat-

Slide

Notes

terns such as motorists' running yellow lights; queuing of vehicles; challenges for busses pulling in and out; difficulty making deliveries; pedestrians failing to cross in the allotted time; or the continued absence of pedestrians and bicyclists speaks to how well the street is functioning for all users.

NOTE: Next, participants will assess crossings. When we speak to type, are the crossings marked or unmarked? How wide is the crossing? Describe the intensity of the markings: are they highly visible; do they utilize color or a change in materials; are they raised or at grade? How many lanes must a pedestrian cross? What is the condition of that crossing? Is the pedestrian crossing faded? Are in-pavement reflectors broken? Is signage well-placed and maintained? Does the pedestrian have a refuge island? Do cars fail to stop at marked stop/yield bars or are they in the crossing?

NOTE: Do signals exist and if they do, what type of signal is there? Is it a countdown signal? Does the WALK signal automatically recall to WALK or does a pedestrian need to push a button to be given the right to cross? Is the signal placed where pedestrians and motorists can see it? Does the timing appear correct for the distance that is crossed or are pedestrians running out of time? What sort of on-street markings and signage exist to assist users in anticipating one another?

NOTE: Assessing the built environment for ADA compliance allows us to recognize how well the built environment works for all users. Curb cuts allow wheeled devices to enter and exit sidewalks and streets. Noting the ramp placement will assist in determining whether it aligns with the marked crosswalk or whether the user is visible to motorists or hidden by an obstruction. Nothing the severity of the grade also speaks to whether the built environment is supportive of all users. Lastly, obstructions such as utility poles may force wheeled users into the street. This should be noted.

NOTE: When assessing the built environment, ultimately we want to understand how comfortable all users feel. Does the built environment work regardless of one's age and ability? If not, why? Assessing lighting (scaled to vehicles or pedestrians or both); the street furniture present (sheltered transit stops, benches, trash cans, recycling bins); landscaping (planted trees and shrubs, in addition to potted plants and hanging baskets or communal gardens); safety features (call boxes on campuses, in addition to the level of transparency at the street level, the type of activity and how visible or "watched over" one feels in the area); and the surrounding land uses (vacant parking lots, derelict buildings, new construction, rates of occupation) impact how comfortable we feel in a place. These items should be noted.

Slide

Notes

NOTE: Walls impact transparency and often fail to provide needed "eyes on the street" to make all users feel save and welcome. "Goat tracks" are made on regular pedestrian routes, where sidewalks do not exist. The comfort we feel in a place has to do with feeling watched over, anticipated and encouraged to be there. While a degree of "welcoming" is hard to quantify, noting barriers to walkability is important to the degree of comfort. When we fail to provide amenities for pedestrians or place an enormous wall beside pedestrian facilities, we are not encouraging users.

NOTE: Once the Survey Legend is complete, participants should fill out the final General Impression Summary document. This document notes those areas that need improvement, are adequate/not applicable or that are functioning with high quality. This will help participants identify what they respond negatively and positively to, in addition to creating the first step in an action plan: identifying what needs improvement and what participants can do to improve the built environment. At the end of the survey, this summary should be shared with the group to determine consensus or outliers. If the audit is done singly, consider who you can share the results with. The goal is to encourage walkability in the community, so recognizing where walkability is a challenge is the first step in making all other steps more enjoyable. For more information on walkability, visit www.walklive.org.

NOTE: This presentation was created the Walkable and Livable Communities Institute. It should be modified for your presentation needs. Please credit the source materials as: Walkable and Livable Communities Institute/ www.walklive.org. Facilitators should update this slide by adding their contact information.

Walkability Toolbox

Walkable and Livable Communities Institute

Toolbox Contents

The following tools will aid you in your efforts to become a more walkable community.

- TOOL: Key Concepts

- TOOL: Build Complete Streets

- TOOL: Street Treatments to Encourage Active Transportation

- TOOL: Active Living Fact Sheet

- TOOL: Working Effectively with Others

- TOOL: Effecting Change - 100 Day Challenge

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

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

Charrette: [pronounced, "shuh-RET"] A collaborative session to solve urban-design problems that usually involves a group of designers working directly with stakeholders to identify issues and solutions. It is more successful than traditional public processes because it focuses on building informed consent. (See Walkable and Livable Communities Institute, www.walk-live.org.)

Complete Streets: Roads that are designed for everyone, including people of all ages and abilities. Complete Streets are accessible, comfortable for walking and biking, and in-clude sidewalks, street trees and other amenities that make them feel "complete." (See National Complete Streets Coalition, www.completestreets.org.)

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

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

Above: Head-out angled parking is safer for all people, including those driving, biking and walking. Below: This diagram from the City of Northampton, MA illustrates one of the benefits of head-out angled parking: a driver's ability to see oncoming traffic as they pull into the travel lane from their parking spot.
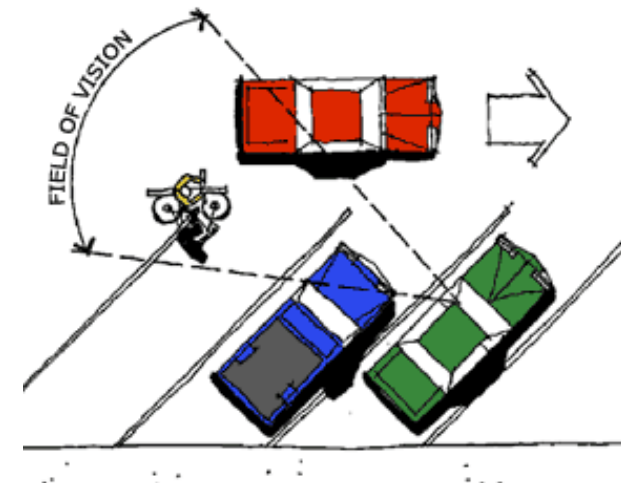
Key Concepts

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

Mini Circles: Also called "mini traffic 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 sometimes called traffic circles, rotaries are a form of an intersection that navigates cars around very large circulating islands. An entire traffic circle can be as big as a football field. And can include stop signs and signals. They are not the same as roundabouts or mini circles. Rotaries are cumbersome and complicated and can induce higher speeds and crash rates. Many rotaries in North America and Europe are being removed and replaced with the preferable roundabout.

Roundabouts: Also called "modern roundabouts," they navigate cars around a circulating island, usually up to 60 feet in diameter. Roundabouts can work well on main streets, collector and arterial roads, and at freeway on-off ramps. They eliminate the need for cars to make left turns, which are particularly dangerous for pedestrians and bicyclists. Properly designed, single-lane 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 at 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://bit.ly/fhwasafetyvideo

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

Above, a mini circle calms neighborhood traffic in San Diego, CA. Below, a series of roundabouts calms traffic along an entire corridor in University Place, WA.

trees. (See Walkable and Livable Communities Institute, www.walklive.org.)

Safe Routes to School: A national program to improve safety and encourage more children, including children with disabilities, to walk, bike and roll to school. The program focuses on improvements through the five E's: engineering, education, enforcement, encouragement and evaluation. (See National Center for Safe Routes to School, www.saferoutesinfo.org.)

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

A sharrow in Seattle, WA.

Sidewalks: All sidewalks, trails, walkways and ramps should be on both sides of streets. Where sidewalk gaps exist or ramps are miss-ing, they should be fixed on a priority basis, working out block-by-block from schools, medical facilities, town centers, main streets and other areas where people should be supported in walking and biking. Sidewalks in people-rich areas should be at least eight feet wide and separated from the curb by a "furniture zone" that can accommodate planter strips, tree wells, hydrants, benches, etc.

Smart Growth: Growing in a way that expands economic opportunity, protects public health and the environment and creates and enhances places that people love. (See U.S. EPA, http://www.epa.gov/smartgrowth/.)

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

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

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

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

Build Complete Streets

Median Widths Vary *Medians typically are six to eight feet wide, but can vary to allow for landscaping, maintenance and adequate "refuge" for pedestrians in crossings.*

Bike lane: At least six feet *To function well, bike lanes should be at least six feet wide. This also this provides adequate space for cars to pull over to let emergency vehicles pass.*

Wide stripes *Mark special-use lanes, such as bike lanes, with low maintenance or thermoplastic stripes 8 to 12 inches wide. This conveys that the lane has a special use and helps drivers stay cautious.*

High Visibility Crossing Markings *Crossings should be located where there is a strong desire to cross, sight distances are good, and speeds are low.*

Connectivity *Access to public transit is important. Transit location, seating, shelter, signage and lighting should be noted.*

Street Furniture *Bike parking, garbage cans, outdoor seating and tree wells enforce the sense of place.*

TOOL: Street Treatments to Encourage Active Transportation

Raised Midblock Crossing

Raised midblock crossings are used between intersections, typically when blocks are long, in locations where vehicle speeds are high, or where sight distances are poor. Raised midblock crossings keep speeds at 15-20 mph 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 also can be 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 Intersection

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 Marking

Crossings should be 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 Sign

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 Island

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 encourage 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 Diet

A road diet involves eliminating travel lanes to improve safety for pedestrians, bicyclists and motorists. High end speeds, especially, are reduced post road diet . While there can be more than four travel lanes before treatment, Road diets are generally conversions of four-lane, undivided roads into two through-lanes plus a center turn lane or median island. The right-of-way left by 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.

Before Road Diet

After Road Diet

Roundabout

Vehicles using a roundabout on Route 62 in   Hamburg, NY

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. Single-lane roundabouts reduce vehicle speeds to 15-20 mph and reduce fatal crashes by 90 percent compared to signalized intersections.

Mini Circle

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 bring 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 Median

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 Extension

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 Intersection

Intersection control devices are critical if walking, bicycling and motoring are to 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.

Right-Sized Bike Lane

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, vehicle 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 from moving traffic.

Plaza, Park and Paseo

Transforming a street, sidewalk, plaza, square, paseo, open lot, waterfront or other space into a community source of distinction, brings enhanced quality of life. 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 Gutter

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 gutter 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 and allows pedestrians to navigate without stepping in puddles.

Tree Well

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

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 vehicle 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. On-street parking takes up only one-third of the land of off-street parking. But the primary reason for maximizing parking on street is to help calm streets that were overbuilt for vehicle 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.

For additional treatments to encourage active transportation, visit: http://www.walklive.org/resources/

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.

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.

Research shows that when properly designed, transportation systems can provide exercise opportunities, improve safety, lower emotional stress, link poor people to opportunity, connect isolated older adults and people with disabilities to crucial services and social supports, and stimulate economic development.

- The Convergence Partnership
http://www.convergencepartnership.org

2010 State Obesity Rates

State	%	State	%	State	%	State	%
Alabama	32.2	Idaho	26.5	Missouri	30.5	Pennsylvania	28.6
Alaska	24.5	Illinois	28.2	Montana	23.0	Rhode Island	25.5
Arizona	24.3	Indiana	29.6	Nebraska	26.9	South Carolina	31.5
Arkansas	30.1	Iowa	28.4	Nevada	22.4	South Dakota	27.3
California	24.0	Kansas	29.4	New Hampshire	25.0	Tennessee	30.8
Colorado	21.0	Kentucky	31.3	New Jersey	23.8	Texas	31.0
Connecticut	22.5	Louisiana	31.0	New Mexico	25.1	Utah	22.5
Delaware	28.0	Maine	26.8	New York	23.9	Vermont	23.2
District of Columbia	22.2	Maryland	27.1	North Carolina	27.8	Virginia	26.0
		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

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.

- Every 10 minutes spent commuting is associated with a 10 percent drop in the time spent traveling for social purposes.

Social Equity

- Traffic-related crashes are the leading cause of death for children, and poor children die at higher rates.

- National data from the Centers for Disease Control and Prevention (CDC) indicate that Native Americans are 1.5 times more likely to die from traffic crashes than other Americans.

- African Americans make up approximately 12 percent of the U.S. population, but they account for 20 percent of pedestrian deaths.

- Although less than one-quarter of all driving takes place in a rural setting, more than half of all fatal motor vehicle crashes occur there.

A morning commute in Maui

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

	Share of all pedestrian deaths	Percentage of overall population
Non-Hispanic white	56.6%	68.3%
Black	17.9%	12.5%
Hispanic	18.5%	13.9%
Asian	3.8%	4.4%
65 and older	21.7%	12.4%
75 and older	13.1%	12.4%

Blue bar longer than grey bar = group is overrepresented in pedestrian fatalities

Source: http://t4america.org/docs/dbd2011/Dangerous-by-Design-2011.pdf
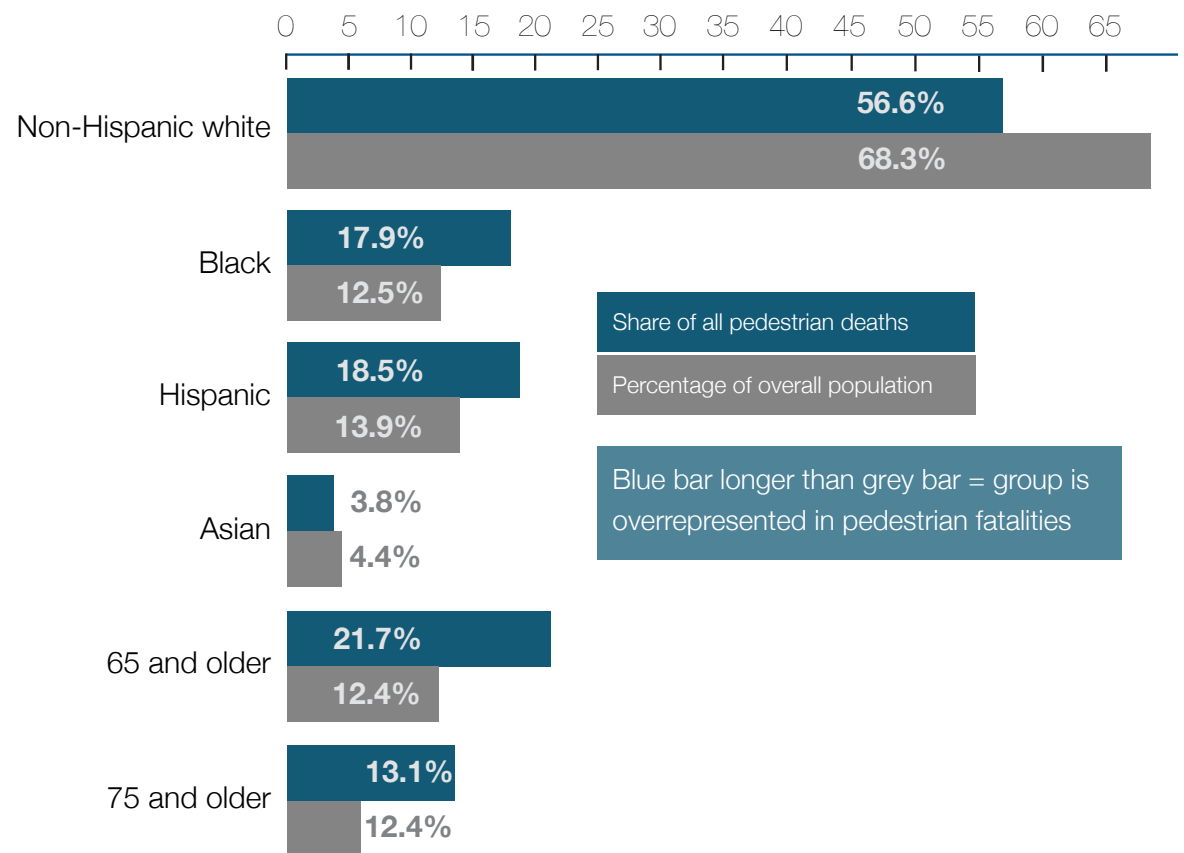
TOOL: Working Effectively With Others

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?"

Engage 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: 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 the 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

Walkability Toolbox
Additional Resources

The following resources speak to the economic value of Walkability:

The Economic Benefits of Walkable Communities
Local Government Commission
http://www.lgc.org/freepub/docs/community_design/focus/walk_to_money.pdf

The Economic Value of Active Transportation
Ryan Snyder Associates
http://www.rsa.cc/images/EconomicValueOfActiveTransportation.pdf

Walking the Walk: How Walkability Raises Home Values in U.S. Cities
CEOs for Cities
www.ceosforcities.org/files/WalkingTheWalk_CEOsforCities1.pdf.

Active Transportation for America: A Case for Increased Federal Investment in Bicycling and Walking
Rail-To-Trails Conservancy
www.railstotrails.org/ATFA

Transportation Rx: Healthy, Equitable Transportation Policy
PolicyLink and the Prevention Institute Convergence Partnership
www.convergencepartnership.org/transportationhealthandequity

Economic Value of Walkability
Victoria Transport Policy Institute
www.vtpi.org/walkability.pdf

Walkable and Livable Communities Institute
1215 Lawrence Street, Unit 001
Port Townsend, WA 98368
(360) 385-3421
www.walklive.org

Walking Audit Survey Tool

Walkable and Livable
Communities Institute

How to Use the Walking Audit Survey Tool

Prior to beginning the walking audit, view the *How to Use the Survey Tool* PowerPoint presentation which provides guidance on utilizing the Walking Audit Survey Tool. This survey tool will assist you in documenting existing conditions during your walking audit. It has four components: 1) the walking audit route map, 2) the street and intersection sketches, 3) the survey legend, and 4) the general impression summary. An example of each of these components is included in this survey tool.

1) The Walking Audit Route Map

Once you decide on the location for your walking audit, go to http://maps.google.com/ to print a map of the walking audit route. On the map, you will want to indicate your starting and ending locations. Use your map to capture notes or observations along the route.

2) The Street and Intersection Sketches

Depending on the extent of your route, you may need to print more than one copy of the street and intersection sketches to capture findings. Use the street and intersection sketches to write notes and capture existing conditions at particular locations. Don't worry about whether you are an artist or not. The goal is to capture findings, so labels or drawings are fine. Through words or images, document what you see and what is missing, as both are of equal importance. An absence of trash cans, for example, might explain the presence of litter.

3) The Survey Legend

The survey legend allows you to capture conditions along the street and at an intersection. You will take a look at sidewalks, bike lanes, vehicle lanes, driveways, parking, intersections, crossings, signals, ADA compliance, lighting, street furniture, landscaping, safety features, and land uses to determine whether the amenity needs improvement, is adequate, or is of high quality. For those items that do not exist, you can choose "not applicable," but if you feel that these items are needed, then make a note of this on the survey legend and mark the item as "needs improvement." The goal of the survey legend is to document your response to the built environment.

4) The General Impression Summary

The general impression summary allows you to reflect upon your notes from the walking audit. You will note those items that need improvement, those that are adequate/not applicable, and those that are high quality. In the notes section, consider next steps for those items that you have indicated need improvement. What must happen in order for the built environment to rank consistently high in quality for you?

SAMPLE
Survey Tool

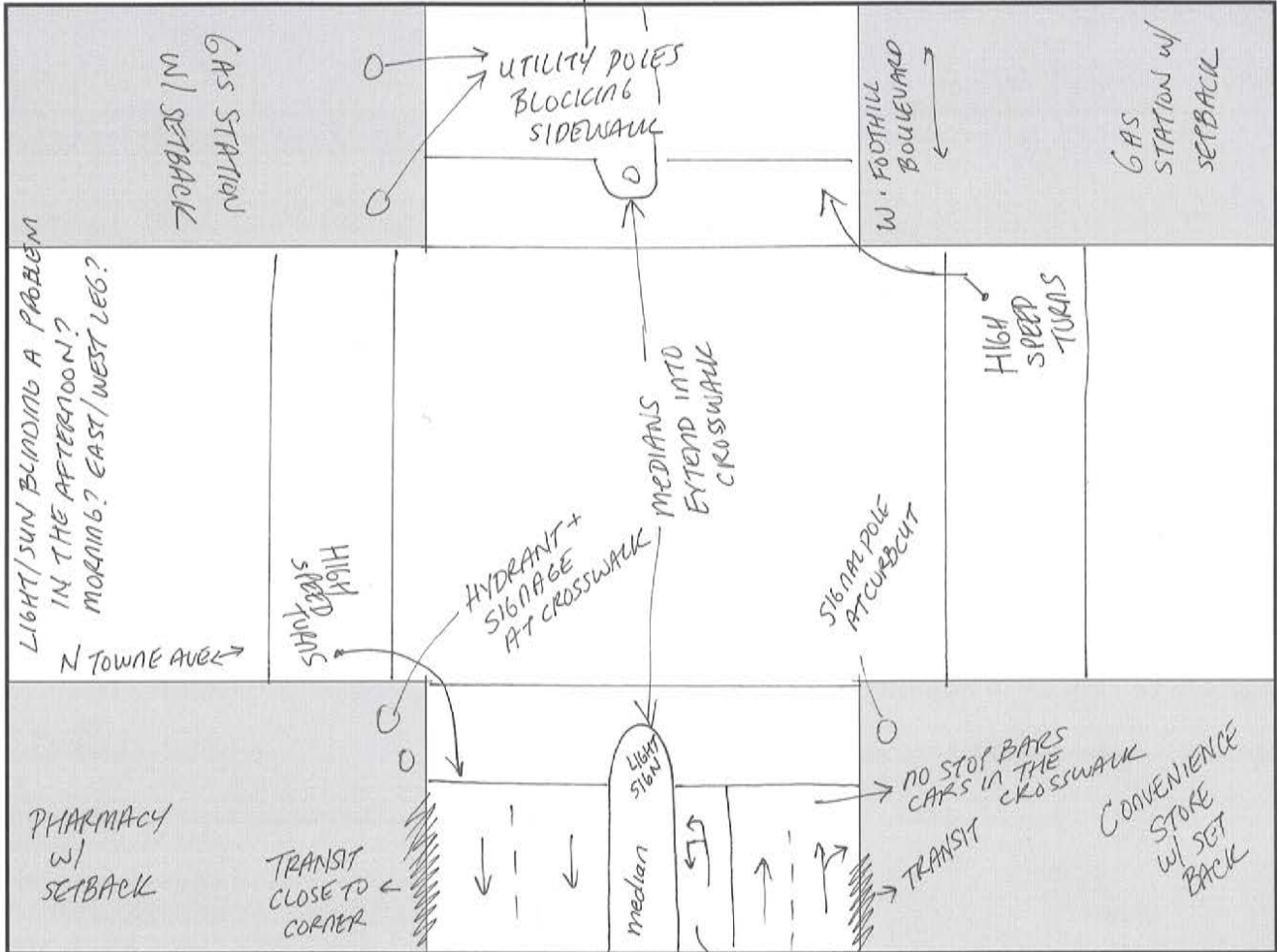The following survey sample is based upon this intersection.

Intersection Sketch

Location: N. TOWNE AT W. FOOTHILL BLVD.
Time and Date: MARCH 2012; 11 AM   Weather Conditions: SUNNY/MILD
Use the intersection sketch to write notes and capture existing conditions at a particular location. Through words or images, document what you see. In addition, note what you would like to see.

Hand-drawn intersection sketch with annotations:
- GAS STATION W/ SETBACK
- UTILITY POLES BLOCKING SIDEWALK
- W. FOOTHILL BOULEVARD
- GAS STATION W/ SETBACK
- LIGHT/SUN BLINDING A PROBLEM IN THE AFTERNOON? MORNING? EAST/WEST LEG?
- HIGH SPEED TURNS
- MEDIANS EXTEND INTO CROSSWALK
- HIGH SPEED TURNS
- LACK OF SHELTER + TREES... ALOT OF CONCRETE
- N TOWNE AVE
- HIGH SPEED TURNS
- HYDRANT + SIGNAGE AT CROSSWALK
- SIGNAL POLE AT CURBCUT
- PHARMACY W/ SETBACK
- TRANSIT CLOSE TO CORNER
- LIGHT SIGN
- median
- NO STOP BARS CARS IN THE CROSSWALK
- TRANSIT
- CONVENIENCE STORE W/ SET BACK

Comfort: Does the built environment make you feel that you belong here? ⟶ MANY VEHICLES WAITING + CARS RUN YELLOW + RED LIGHTS TO AVOID QUEUE TWICE
GOOD: LIGHTING, SEATING, + LITTER CANS
GOOD: WIDE SIDEWALKS; GOOD MAINTENANCE
NO SHELTER FOR TRANSIT
SOME OBSTACLES IN CROSSWALKS + ON SIDEWALKS (MEDIAN, LIGHT POLES, HYDRANT, SIGNS)

Safety: Where did you feel safe or unsafe? What made you feel that way?
HIGH TURNING SPEED FROM N. TOWNE TO W. FOOTHILL W/ TRANSIT STOP
AT THE CORNER... CARS COME AROUND THE CORNER + DON'T ANTICIPATE
THE STOPPED BUS/LOADING OF PASSENGERS. WIDE INTERSECTION SO COUNT DOWN SIGNALS ARE NICE TO HAVE.

Behaviors: Please describe pedestrian, bicyclist and driver behaviors. Are people behaving with courtesy?
RIGHT + LEFT TURN LANES HAD AGGRESSIVE DRIVERS WHO WERE IMPATIENT +
MADE HIGH SPEED TURNS. PEDESTRIANS WALKING TO TRANSIT. NO STOP BARS SO
CARS WAIT IN THE CROSSWALK

Overall Impressions: Did you like being in this environment?
HOT. LACK OF SHELTER, BUSINESSES FOR DRIVE THRU CUSTOMERS. SOME TREES
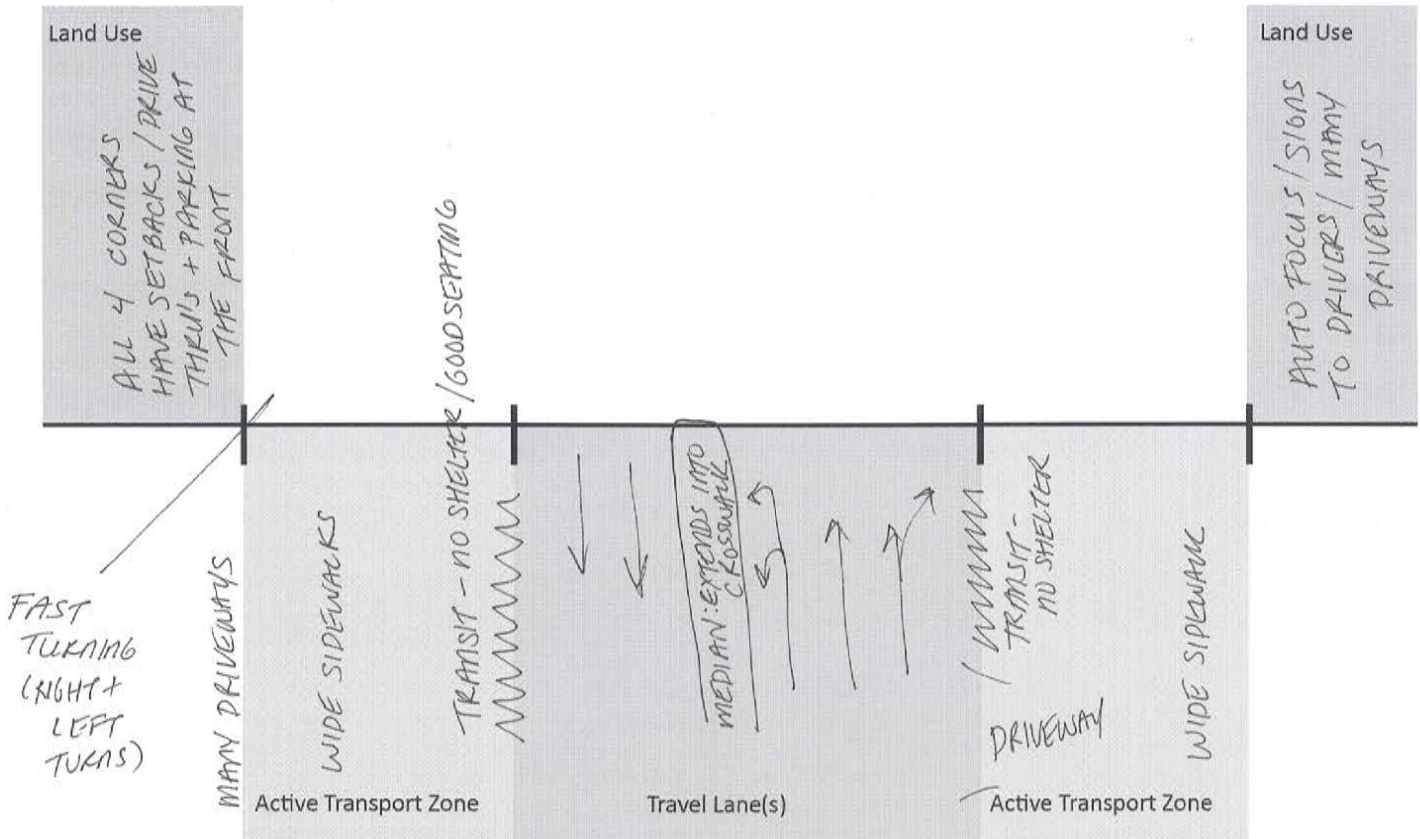OR SHELTER WOULD BE NICE.

Street Sketch

Location: N. TOWNE AT W. FOOTHILL BLVD.
Time and Date: MARCH 2012; 11 AM   Weather Conditions: SUNNY/MILD

Use the street sketch to write notes and capture existing conditions at particular locations. Through words or images, document what you see. In addition, note what you would like to see.

Land Use

ALL 4 CORNERS HAVE SETBACKS / DRIVE THRUS + PARKING AT THE FRONT

Land Use

AUTO FOCUS / SIGNS TO DRIVERS / MANY DRIVEWAYS

TRANSIT - NO SHELTER / GOOD SEATING

MEDIAN: EXTENDS INTO CROSSWALK

TRANSIT - NO SHELTER

FAST TURNING (RIGHT + LEFT TURNS)

MANY DRIVEWAYS

WIDE SIDEWALKS

DRIVEWAY

WIDE SIDEWALK

Active Transport Zone   Travel Lane(s)   Active Transport Zone

Comfort: Does the built environment make you feel that you belong here?

TOO MANY DRIVEWAYS, FAST MOVING VEHICLES
SIGNS + BUILDINGS GEARED TO THE DRIVER

Safety: Where did you feel safe or unsafe? What made you feel that way?

FAST TURNS (TO AVOID RED LIGHT) + CARS DON'T ANTICIPATE THE STOPPED
BUS LOADING PASSENGERS

Behaviors: Please describe pedestrian, bicyclist and driver behaviors. Are people behaving with courtesy?

DRIVE THRU AREA; PEOPLE RUNNING ERRANDS + COMMUTING ... NO DISTINCT
CHARACTER TO THE AREA; LACK OF PLACE

Overall Impressions: Did you like being in this environment?

NO. NOTHING SPECIAL ... "ANYWHERE" FEEL

Survey Legend

Use the survey legend to capture conditions along the audit route. For those items that do not exist, you can choose "not applicable," but if you personally feel that these items are needed, then make a note of this on the survey legend and mark the item as "needs improvement." The goal of the survey legend is to document your impressions of the built environment.

Street	Needs Improvement	N/A or Adequate	High Quality	Notes and Observations
Sidewalk				
• Width ___?___		X		DID NOT MEASURE BUT WIDE ENOUGH TO ALLOW PEDESTRIANS, TRANSIT + FURNITURE ZONE TO WORK TOGETHER
• Condition		X		
• Maintenance			X	WELL MAINTAINED
• Materials ?		X		
• Buffer SOME		X		NOT CONSISTENT BUT WIDE ENOUGH TO FEEL PROTECTED
• Pedestrian Behaviors		X		MAINLY WALKING TO TRANSIT
Bike Lanes				
• Width _____	X	X		NO BIKE LANES; IS THERE ANOTHER LOCAL ROUTE FOR BICYCLISTS? IF SO, SIGNAGE POINTING THAT OUT IS NEEDED. IF NOT, WHERE DO CYCLISTS RIDE? IS THERE A BICYCLE MASTER PLAN?
• Condition		X		
• Maintenance		X		
• Materials		X		
• Buffer		X		
• Cyclist Behaviors	X	X		BICYCLIST (1) RIDING ON THE SIDEWALK
Vehicle Travel Lanes				
• No. Of Lanes		X		2 THROUGH LANES W/ 1 TURN LANE; PEAK CONGESTION
• Lane Width ___?___		X		DID NOT FEEL COMFORTABLE MEASURING LANE WIDTH B/C TOO MANY TURNING VEHICLES TO WATCH FOR
• Posted Speed 35/40 MPH		X		
• Observed Speed (High/Low)	X			CARS MAKE FAST RIGHT + LEFT TURNS; SPEEDING THROUGH THE YELLOW OBSERVED
• Vehicle Stacking	X			LEFT TURN/U-TURN STACKING; TRANSIT CONFLICT

→ 50+ MPH TO 30 MPH OBSERVED
TURNING VEHICLES MOST AGGRESSIVE

B/C OF LOCATION
NEAR THE CORNER

Survey Legend

Use the survey legend to capture conditions along the audit route. For those items that do not exist, you can choose "not applicable," but if you personally feel that these items are needed, then make a note of this on the survey legend and mark the item as "needs improvement." The goal of the survey legend is to document your impressions of the built environment.

	Needs Improvement	N/A or Adequate	High Quality	Notes and Observations
• Driver Behaviors	X	X		SOME GOOD BEHAVIORS (I.E. WAITING FOR PEDESTRIANS) BUT MANY AGGRESSIVE BEHAVIORS: RUNNING YELLOW LIGHTS, TURNING FAST, EXITING DRIVEWAYS TO BEAT ON-COMING TRAFFIC
Driveways				
• Number Of Driveways	X			SEEMS TO BE THE BIGGEST PROBLEM: TOO MANY DRIVEWAYS THAT IT'S HARD TO ANTICIPATE ALL OF THE TURNING VEHICLES
• Distance From Intersection	X			
• Turning Radii	X			VERY FAST RIGHT TURNS ON TO FOOTHILL BLVD.
Parking				→ DRIVEWAYS ARE SO CLOSE TO THE INTERSECTION — IS THIS OK?
• On Street Parking		X		N/A
• Off Street Parking	X			SO MUCH OFF-STREET PARKING + BUILDINGS ARE SET BACK TO PLACE PARKING IN FRONT — HOW MUCH IS NEEDED ALONG THE CORRIDOR?
• Location Of Handicapped Parking		X		? DIDN'T NOTICE
Intersections				
Intersections				WIDE / FAST INTERSECTION = 40 MPH
• Complexity	X			A LOT OF TURNING VEHICLES, PLUS TRANSIT IS
• Width	X			LOCATED NEAR THE CORNER. POSSIBLE TO
• Visibility	X			CROSS IN THE TIME PROVIDED? FEEL VERY
• Exposure	X			EXPOSED IN THE INTERSECTION; NO YIELD BAR
Crossings				AND SO CARS CREEP INTO THE CROSSWALKS.
• Type	X			HIGHER INTENSITY MARKINGS AND YIELD BARS
• Width	X			ARE NEEDED. EAST/WEST HAS SUN-BLINDING
• Condition	X			AND SHADOWING PROBLEMS AND IT'S HARD TO
• Maintenance	X			SEE PEDESTRIANS. MEDIAN IN THE CROSSWALK
• Materials	X			ISN'T WIDE ENOUGH FOR PEDESTRIANS TO WAIT

ON IF THEY CAN'T CROSS IN TIME — NOT A REFUGE

Survey Legend

Use the survey legend to capture conditions along the audit route. For those items that do not exist, you can choose "not applicable," but if you personally feel that these items are needed, then make a note of this on the survey legend and mark the item as "needs improvement." The goal of the survey legend is to document your impressions of the built environment.

	Needs Improvement	N/A or Adequate	High Quality	Notes and Observations
• Pedestrian Refuge	X			⊙ NOT WIDE ENOUGH TO FUNCTION AS A REFUGE ISLAND BUT COULD TRIP VISUALLY IMPAIRED + FORCE WHEEL CHAIRS INTO THE INTERSECTION?
Signals				
• Type	X			⊙ COUNTDOWN SIGNALS NEEDED ON ALL LEGS B/C CROSSING TIMES MIGHT HELP KEEP PEDESTRIANS
• Placement	X			
• Timing	X			FROM GETTING STRANDED IN THE INTERSECTION.
ADA Compliance				⊙ MANY RUN THROUGH THE INTERSECTION B/C THEY DON'T KNOW HOW MUCH TIME IS LEFT.
• Curb Cuts	X			⊙ NOT CONSISTENT ALONG CORRIDOR; SOMETIMES
• Ramp Placement	X			THE CURB CUT + RAMP PLACEMENT FORCE THE
• Grade (Less Than 5%) ?		X		PEDESTRIAN INTO TRAFFIC OR OUT OF THE CROSSWALK
• Obstructions YES	X			⊙ UTILITY POLES / SIGNS / HYDRANTS BLOCK SIDEWALKS OR RAMPS TO SIDEWALKS
User Comfort				
Lighting				⊙ HARD TO SEE PEDESTRIANS AT CERTAIN TIMES.
• Type ?		X		MAINLY LIGHTING FOR STREETS; DARK AREAS
• Location	X			AWAY FROM THE INTERSECTIONS ... PROBLEMATIC DUE TO 24-HOUR SHOPS W/ MANY DRIVEWAYS?
• Quality ?		X		⊙ DOESN'T ADD TO SENSE OF PLACE
Street Furniture				
• Bike Rack	X			⊙ NOT NOTICED ALONG CORRIDOR ?
• Seating		X		⊙ GOOD SEATING AT TRANSIT STOPS ONLY
• Trash/Recycling Cans		X		X ⊙ YES, CONSISTENT NEAR TRANSIT + OUTSIDE STORES
• Sheltered Transit Stops	X			⊙ NO, MORE SHELTERS NEEDED
• Restrooms		X		? DIDN'T NOTICE BUT THERE ARE SIGNS THAT SAY RESTROOMS ARE FOR CUSTOMERS AT THE GAS STATIONS ... PROBLEM?

Survey Legend

Use the survey legend to capture conditions along the audit route. For those items that do not exist, you can choose "not applicable," but if you personally feel that these items are needed, then make a note of this on the survey legend and mark the item as "needs improvement." The goal of the survey legend is to document your impressions of the built environment.

	Needs Improvement	N/A or Adequate	High Quality	Notes and Observations
• Drinking Fountain	X	X		☺ DIDN'T NOTICE; NOT EXPECTED HERE
Landscaping				
• Maintenance		X	X	☺ HEDGES WELL MAINTAINED; MORE GREEN NEEDED
• Shade	X			MORE TREES + SHADE NEEDED
Safety				
• Transparency	X	X		☺ MIX OF RESPONSES B/C THERE ARE ALOT OF
• Activity		X		SET BACKS AND PARKING LOTS; SOME BUILDINGS HAVE TURNED THEIR BACKS TO THE STREET
• Visibility	X	X		☺ HARD TO SAY ··· CAR FOCUSED AREA W/ DRIVE THRU'S.
Land Use				
• Land or Building Use	X			☺ SOME NEW CONSTRUCTION BUT GEARED TO
• Building Setbacks	X			AUTOMOBILES: GAS STATIONS ON MOST CORNERS,
• Construction Quality	X	X		DRIVE THRU'S, TOO MANY DRIVEWAYS, SOME
• Maintenance		X	X	OLD MALLS IN DISREPAIR ··· SOME INFILL
Signage & Wayfinding	X	X		DEVELOPMENT BUT MANY SPRAWLING STRIP MALLS SOME NEW, SOME OLD, SOME DEAD

↳ ☺ MAINLY FOR MOTORISTS THOUGH SOME PEDESTRIAN SIGNAGE NEAR TRANSIT.

General Impression and Summary

Reflect upon your notes from the walking audit. This summary page should contain key observations from the walking audit. First, you will want to document those areas that need improvement and why you feel this way. Then, you will want to document those areas that you feel are high quality. The goal is to understand what is working and what is not working and why. Noting what you positively and negatively respond to is a good first step in understanding your expectations and needs. Lastly, you will consider your next steps.

What areas are working? Why?

STREETS AND BUILDINGS ARE FOR VEHICULAR TRAFFIC. SOME PEDESTRIAN SIGNS / AMENITIES NEAR TRANSIT STOPS. NOT A VERY WALKABLE AREA BUT IT IS CLEAN AND WELL-MAINTAINED. GOOD SEATING + LITTER CANS NEAR TRANSIT.

What areas need improvement? Why?

THE CORRIDOR DOES NOT ENCOURAGE WALKING OR BICYCLING.

TOO MANY DRIVEWAYS, FAST TURNING VEHICLES AND VERY WIDE INTERSECTIONS MAKE WALKING UNCOMFORTABLE. LACK OF SHELTER AND TREES MAKES IT HOT IN THE SUMMER MONTHS AND UNCOMFORTABLE WHEN IT'S RAINING. NO DISTINCT "PLACE"; IT COULD BE ANYWHERE. VERY LITTLE PEDESTRIAN SIGNAGE AND TRANSIT LOCATIONS ARE CAUSING CONFLICTS FOR U-TURNING VEHICLES ON FOOTHILL BLVD. LEFT TURN LANES HOLD CARS FOR MORE THAN 1 CYCLE + MOTORISTS TRY TO RACE THROUGH THE YELLOW TO

For those items that need improvement, what are your next steps? AVOID THE CYCLE.

TO DO : ① IS THERE A BICYCLE MASTER PLAN ? RESEARCH THIS

② STOP/YIELD BARS ARE NEEDED TO KEEP CARS OUT OF THE CROSSWALKS ... CALL PUBLIC WORKS TO ASK THEM HOW/WHEN THEY ARE USED.

③ SO MANY DRIVEWAYS ... EVEN RIGHT AT THE CORNERS AND NEAR TRANSIT STOPS ... CALL PLANNING DEPARTMENT TO UNDERSTAND "ACCESS MANAGEMENT" AND BEST PRACTICES FOR DRIVEWAYS ... WHY SO MANY?

Walking Audit Route Map

Location:

Time and Date: *Weather Conditions:*

Once you decide on the location for your walking audit, go to http://maps.google.com/ to print a map of the walking audit route. On the map, you will want to indicate your starting and ending locations. Use your map to capture notes or observations along the route.

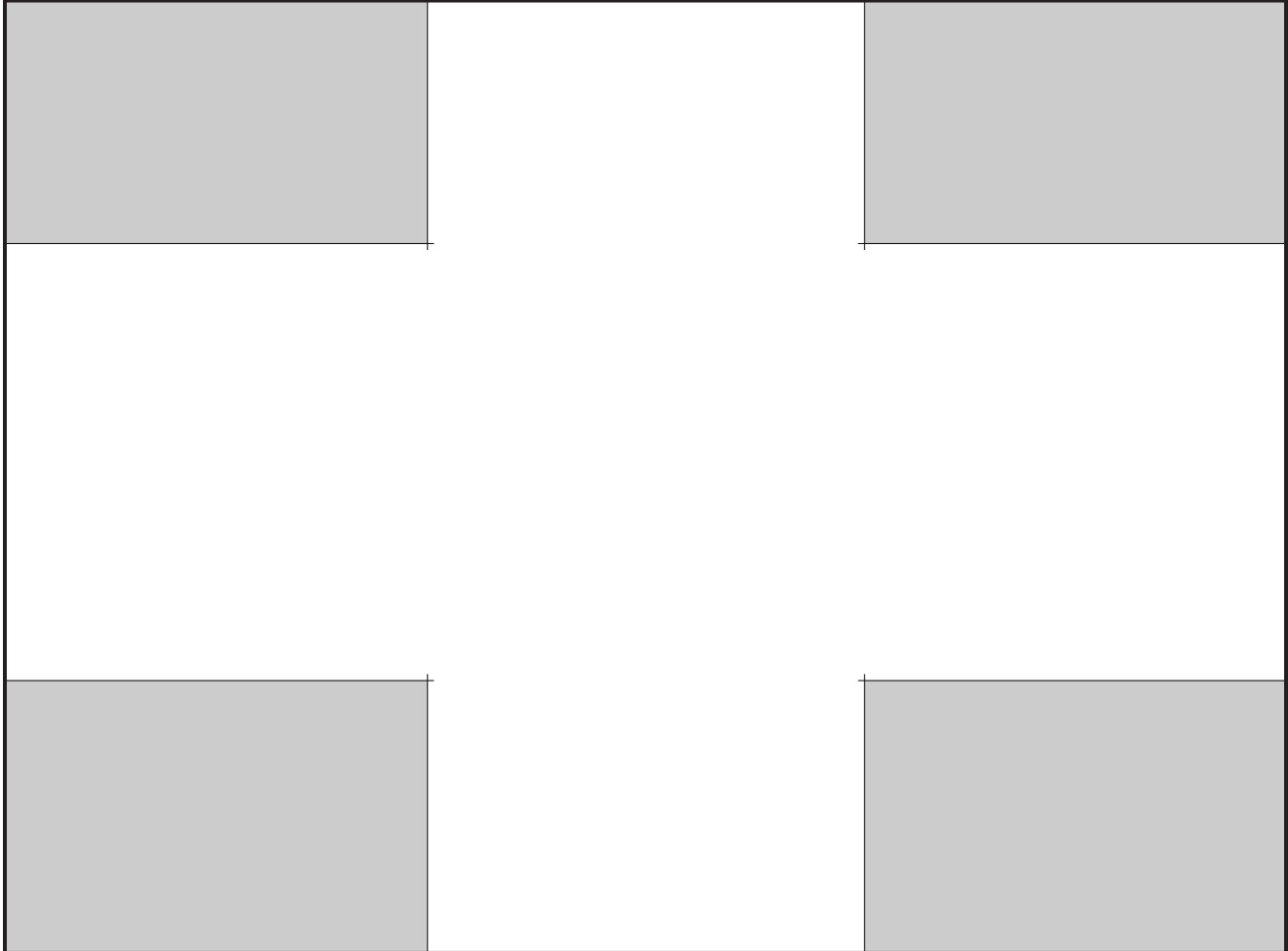# Insert Walking Audit Route Map here

Intersection Sketch

Location:

Time and Date: *Weather Conditions:*

Use the intersection sketch to write notes and capture existing conditions at a particular location. Through words or images, document what you see. In addition, note what you would like to see.

Comfort: Does the built environment make you feel that you belong here?

Safety: Where did you feel safe or unsafe? What made you feel that way?

Behaviors: Please describe pedestrian, bicyclist and driver behaviors. Are people behaving with courtesy?

Overall Impressions: Did you like being in this environment?

Street Sketch

Location:

Time and Date: *Weather Conditions:*

Use the street sketch to write notes and capture existing conditions at particular locations. Through words or images, document what you see. In addition, note what you would like to see.

Land Use   Land Use

Active Transport Zone   Travel Lane(s)   Active Transport Zone

Comfort: Does the built environment make you feel that you belong here?

Safety: Where did you feel safe or unsafe? What made you feel that way?

Behaviors: Please describe pedestrian, bicyclist and driver behaviors. Are people behaving with courtesy?

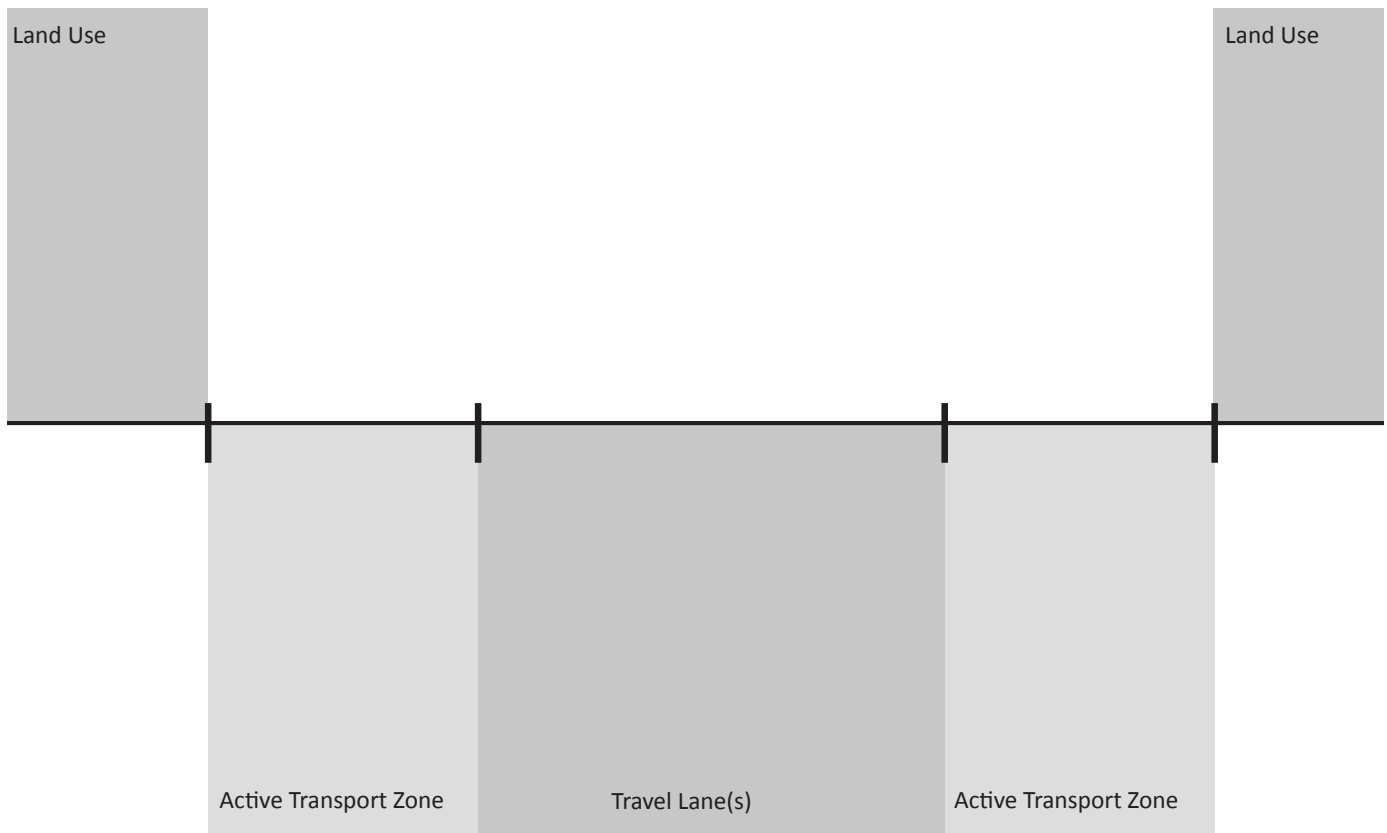Overall Impressions: Did you like being in this environment?

Survey Legend

Use the survey legend to capture conditions along the audit route. For those items that do not exist, you can choose "not applicable," but if you personally feel that these items are needed, then make a note of this on the survey legend and mark the item as "needs improvement." The goal of the survey legend is to document your impressions of the built environment.

Street	Needs Improvement	N/A or Adequate	High Quality	Notes and Observations
Sidewalk				
• Width_____				
• Condition				
• Maintenance				
• Materials				
• Buffer				
• Pedestrian Behaviors				
Bike Lanes				
• Width_____				
• Condition				
• Maintenance				
• Materials				
• Buffer				
• Cyclist Behaviors				
Vehicle Travel Lanes				
• No. Of Lanes				
• Lane Width_____				
• Posted Speed				
• Observed Speed (High/Low)				
• Vehicle Stacking				

Survey Legend

Use the survey legend to capture conditions along the audit route. For those items that do not exist, you can choose "not applicable," but if you personally feel that these items are needed, then make a note of this on the survey legend and mark the item as "needs improvement." The goal of the survey legend is to document your impressions of the built environment.

	Needs Improvement	N/A or Adequate	High Quality	Notes and Observations
• Driver Behaviors				
Driveways				
• Number Of Driveways				
• Distance From Intersection				
• Turning Radii				
Parking				
• On Street Parking				
• Off Street Parking				
• Location Of Handicapped Parking				
Intersections				
Intersections				
• Complexity				
• Width				
• Visibility				
• Exposure				
Crossings				
• Type				
• Width				
• Condition				
• Maintenance				
• Materials				

Survey Legend

Use the survey legend to capture conditions along the audit route. For those items that do not exist, you can choose "not applicable," but if you personally feel that these items are needed, then make a note of this on the survey legend and mark the item as "needs improvement." The goal of the survey legend is to document your impressions of the built environment.

	Needs Improvement	N/A or Adequate	High Quality	Notes and Observations
• Pedestrian Refuge				
Signals				
• Type				
• Placement				
• Timing				
ADA Compliance				
• Curb Cuts				
• Ramp Placement				
• Grade (Less Than 5%)				
• Obstructions				
User Comfort				
Lighting				
• Type				
• Location				
• Quality				
Street Furniture				
• Bike Rack				
• Seating				
• Trash/Recycling Cans				
• Sheltered Transit Stops				
• Restrooms				

Survey Legend

Use the survey legend to capture conditions along the audit route. For those items that do not exist, you can choose "not applicable," but if you personally feel that these items are needed, then make a note of this on the survey legend and mark the item as "needs improvement." The goal of the survey legend is to document your impressions of the built environment.

	Needs Improvement	N/A or Adequate	High Quality	Notes and Observations
• Drinking Fountain				
Landscaping				
• Maintenance				
• Shade				
Safety				
• Transparency				
• Activity				
• Visibility				
Land Use				
• Land or Building Use				
• Building Setbacks				
• Construction Quality				
• Maintenance				
Signage & Wayfinding				

General Impression and Summary

Reflect upon your notes from the walking audit. This summary page should contain key observations from the walking audit. First, you will want to document those areas that need improvement and why you feel this way. Then, you will want to document those areas that you feel are high quality. The goal is to understand what is working and what is not working and why. Noting what you positively and negatively respond to is a good first step in understanding your expectations and needs. Lastly, you will consider your next steps.

What areas are working? Why?

What areas need improvement? Why?

For those items that need improvement, what are your next steps?

Walkable and Livable Communities Institute
1215 Lawrence Street, Unit 001
Port Townsend, WA 98368
(360) 385-3421
www.walklive.org