



MIDDLETOWN WALKABLE COMMUNITY WORKSHOP

September 10, 2014

Hosted by Middletown Main Street
& WILMAPCO



Walkable Community Workshops are interactive events that bring together the community and transportation professionals to focus attention on making it safer and easier to walk.

Workshop participants identified real-world problems and hands-on solutions for the community.



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**Learn more about the Walkable Community Workshop Program at
www.wilmapco.org/walkable**

The preparation of this document was financed in part with funds provided by the Federal Government, including the Federal Transit Administration and the Federal Highway Administration of the United States Department of Transportation.

INTRODUCTION

WILMAPCO was selected for the 2005 Walkable Community Workshops (WCW) program—part of the National Center for Bicycling & Walking effort to work directly with communities. WCWs are interactive events that bring together residents, elected officials, advocates, public agency staff, health practitioners, educators, planners and engineers to make our communities safer and easier to walk in. Since 2005, workshops have been held throughout the WILMAPCO region, providing information on how we can turn our communities into the kind of pedestrian-friendly places we all like to experience.

WHO IS WILMAPCO?

The Wilmington Area Planning Council (WILMAPCO) is the bi-state Metropolitan Planning Organization (MPO) serving New Castle County, DE and Cecil County, MD. Our policy-making body, the WILMAPCO Council, consists of state, county and municipal representatives. We have the important role of educating and involving the public and local agencies in the transportation decision-making and funding process. Our Regional Transportation Plan calls for improving our quality of life by protecting public health and supporting our communities, transporting people by providing transportation choices including facilities for bicycling and walking, and supporting economic activity and growth by making our region an attractive place to live and work. Making our communities more walkable achieves all these goals, and more.

WHY ARE WALKABLE COMMUNITIES IMPORTANT?

We are all pedestrians. Whether we think of ourselves as one or not, we are pedestrians. We may walk to work, walk for exercise, walk to do errands or simply walk from where we park the car to the neighborhood store; we all need safe facilities for walking.

Walking is crucial to give those who don't drive a travel choice. Many in our region are too young to drive, have a permanent or temporary disability which prevents their driving, have no access to a car, or choose not to drive. In Middletown, Delaware, 23% of the population is under 18, 13% are 65 or older (this number is expected to grow rapidly in the years to come), 5% of the population has a disability, and 3% of households have no available vehicle. Many people in these population groups need to walk in order to lead active and independent lives.

Walkable communities are healthier communities. Americans' waistlines are getting wider, triggering a rise in related illnesses including heart disease and diabetes. The Centers for Disease Control estimates that in Delaware 27% of adults are obese, only 46% of adults engage in the recommended amount of physical activity, and 22% of adults engage in no leisure-time physical activity at all. Additionally, only 24% of adolescents get the recommended amount of physical activity. Yet we know that pedestrian-friendly communities

make it easier for people to integrate physical activity into their daily lives. Indeed, those who report having access to sidewalks are 27% more likely to be physically active.

Everyone benefits from walkable communities. Even if you don't personally enjoy walking, you still benefit from living in a walkable community. Approximately 40% of all trips are less than two miles – an easy walk or bike ride in an area with safe pedestrian and bicycling facilities. More people walking and bicycling can help reduce overall levels of congestion, benefiting drivers too. Less driving can also help reduce air pollution caused by motor vehicles. There are economic benefits as well, with higher property values and greater sales in commercial areas.

WHAT IS A WALKABLE COMMUNITY WORKSHOP?

A WCW is typically a four-hour session that includes an educational presentation on what makes a community walkable, a walking audit of a specific area, and a mapping session, where participants engage in brainstorming solutions. Focusing on a particular area's walkability, participants study sidewalks, pathways, inviting streetscape, crosswalks, destinations, etc. The process gives everyone the tools for making a community walkable and provides realistic next steps that can be used to achieve their ideas.

There are three main parts of a workshop:

Part 1: Presentation – The presentation talks about sidewalk design, crosswalks, traffic calming, community design and other tools communities need to create walkable communities.



Part 2: Walking Audit – The walking audit gives participants a chance to walk through the area, identifying issues and thinking about applying what they have learned from the presentation. Getting out and walking is key to illustrating the challenges that people face when pedestrian facilities are not available.



Part 3: Mapping – During the mapping exercise people put down on paper their vision and realistic actions for improving the study area. Participants ended the session by committing to specific next steps to continue the process started at the workshop.



MIDDLETOWN BACKGROUND AND RECOMMENDATIONS

AREA BACKGROUND

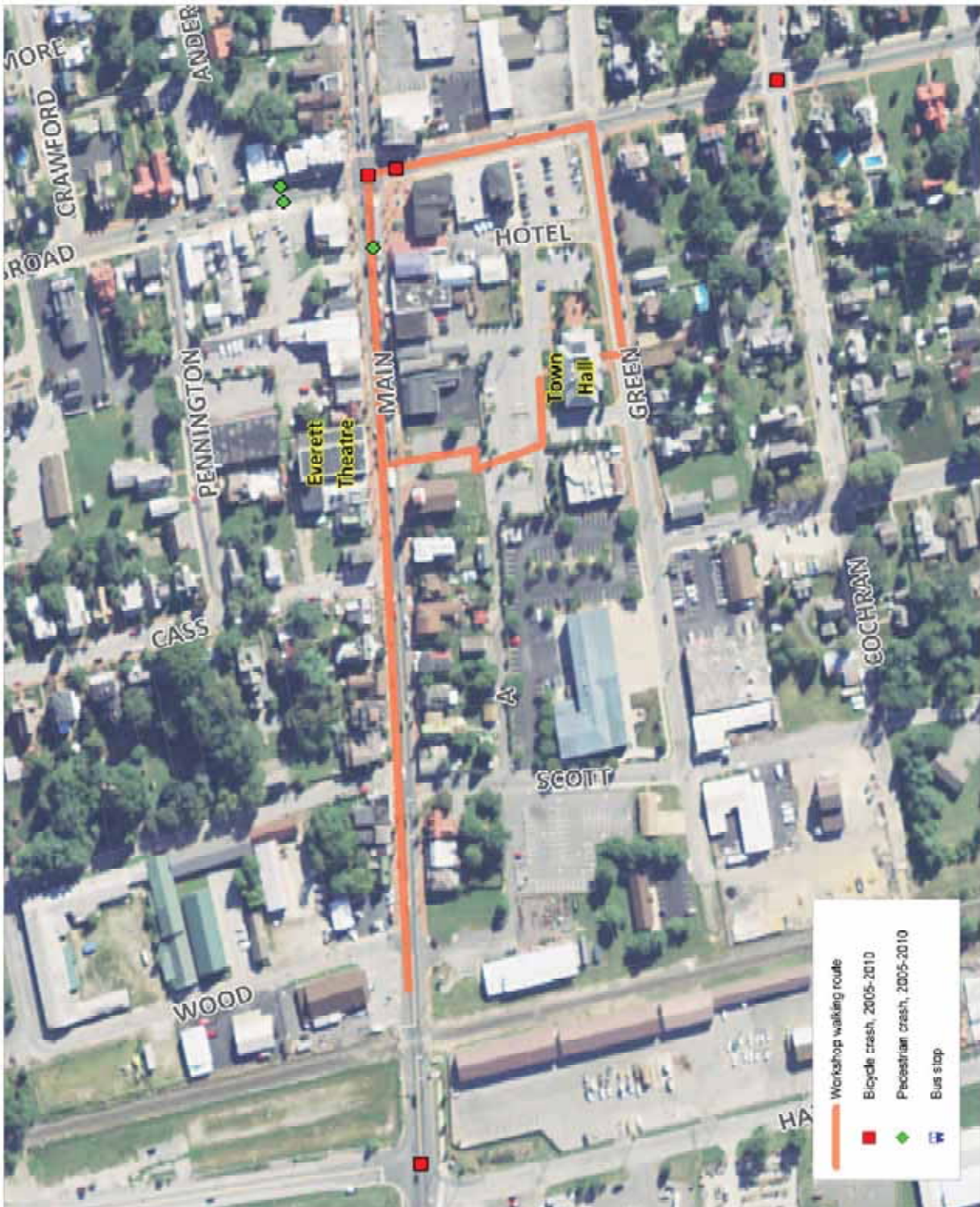
The Middletown is an historic community that is home to more than 19,000 residents. At the heart of Middletown is its Main Street, a designated Main Street by the Delaware Economic Development Office (DEDO). Businesses, restaurants, cultural attractions, and public gathering places line Main Street.

Approximately 30 residents, business representatives, community organizations and transportation professionals attended the Middletown WCW held on September 10, 2014 in the historic downtown of the Middletown at the Town Hall. The walking audit route (Map 1) began at the Town Hall and then traveled on Green Street to Broad Street, Broad Street between Green Street and Main Street, Main Street between Broad Street and the Norfolk Southern Railroad, before returning along Main Street to the Town Hall.

The Middletown WCW builds upon past planning in the community. In 1997, WILMAPCO partnered with the Town of Middletown to develop Mobility Friendly Design Standards. The design standards provided a guide to ensure that walking and bicycling were are considered and implemented in the built environment where appropriate. They recommended specific text and design criteria amendments to remove existing impediments to mobility friendly design, and were subsequently adopted into the Town's zoning code.

More recently, Middletown has worked with DelDOT to complete downtown streetscaping projects that included sidewalks, street trees, pedestrian scale lighting, ADA crosswalks and other feature to support a vibrant, walkable downtown. Four miles of walking and bicycling trails have been built throughout the Town to connect housing, parks, schools and shopping area, and the Town works closely with developers to ensure that new growth is interconnected with the community.

These efforts culminated with Middletown being awarded the first Gold Level Delaware Healthy Community by Governor Jack Markell's Council on Health Promotion and Disease Prevention. Middletown requested WILMAPCO's assistance in holding a WCW to get confirmation that it is a walkable town, and identify next steps to improve even more. In particular, needs identified prior to the workshop included downtown safety, drawing more foot traffic to support businesses, and a pedestrian crossing in front of our Historic Everett Theatre.



Map 1 Study Area

SUMMARY OF RECOMMENDATIONS

Workshop attendees completed a walking audit along the route shown in **Map 1**. Following the walking audit, participants divided into two groups to brainstorm and map their recommendations. **Map 2** (recommendations along the walk route) and **Map 3** (broader area recommendations) summarize the discussion by the two groups.

Highlights of the discussion along the walk and during the mapping include:

GETTING ALONG THE STREET

Sidewalks

Sidewalks in the area studied vary in width and character. Along Main Street between Wood Street and Broad Street, the brick sidewalks are wide and even with decorative streetlights, trees and ample places to sit.



Downtown, Main Street sidewalks are well maintained, and have decorative streetscaping elements and landscaping that help give character to the neighborhood.



Green Street sidewalks are also well maintained brick sidewalks with a grass buffer between the walkway and road.

Sidewalks should be at least 5 feet wide in residential areas, but in commercial areas 8 feet or wider is preferred. Wider sidewalks provide space for outdoor dining, benches, bicycle racks, sandwich boards and trash cans separate from where people are walking.



Utility vaults along Main Street may be slippery, particularly when wet, and should be relocated if possible or replaced with slip-resistant materials.



Some side streets are either missing sidewalks or have poorly maintained sidewalks.



Sidewalks end briefly at the Norfolk Southern railroad crossing.

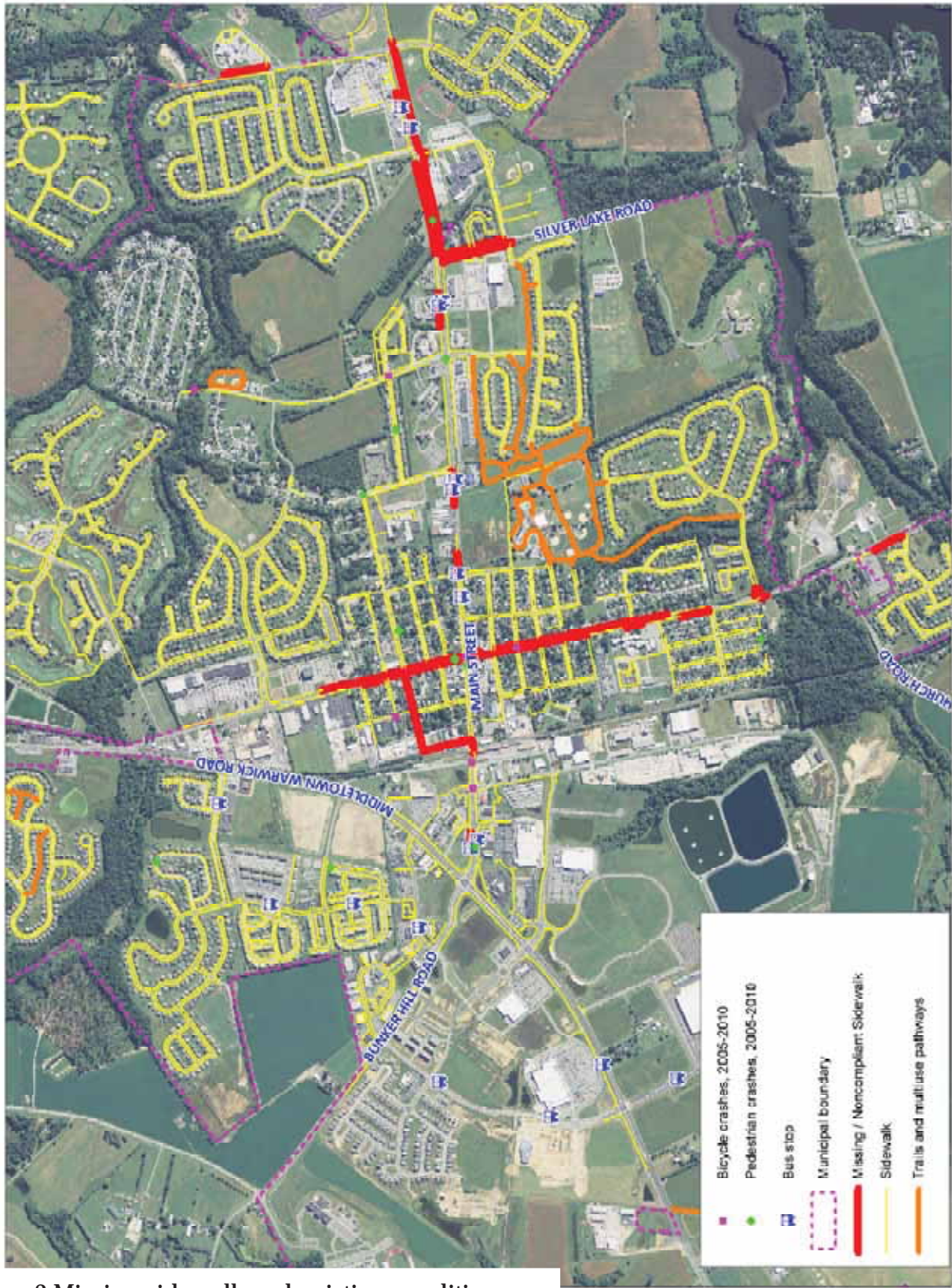


A better option is to extend the sidewalks through the rail crossing, such as this example. This crossing also features an escape route to allow pedestrians caught within the gates to get out.

Photo: <http://www.cityblm.org/index.aspx?page=563>



Map 2 Recommendations



Map 3 Missing sidewalk and existing conditions

Bicycle Routes

Main and Broad Streets are part of Bike Route 1, and 180 mile regional bike route that extends from Newark to Dewey Beach. Route lacks accompanying pavement markings and has inconsistent signage. Bicycle facility pavement markings should be added to Broad and Main Streets.



Without marked on-road facilities, bicyclists were seen riding on the sidewalk.



Delaware Bike Route 1 travels through Middletown with directional signs but without bicycle facilities.



Bicycle lanes should be 4-6 feet wide. If there is more space, a painted buffer might also be added as shown to the left. Bicycle lanes can be added to Broad Street by widening the shoulder where space exists and adding bicycle lane markings.



Sharrows, or Shared Lane Markings, accommodate bicyclists on lower volume, lower speed streets without sufficient width for bicycle lanes. Sharrows also assist bicyclists with proper lane positioning relative to the curb and on-street parking. Sharrows might be appropriate for Main Street if there is not sufficient width for bicycle lanes.



Local streets can be designed as **Bicycle Boulevards**, particularly where they fill a gap between off-road pathways and key destinations including parks, schools, and commercial areas. Bicycle Boulevards use a mix of signs, pavement markings, and traffic calming measures to discourage through trips by motor vehicles, create safe, convenient bicycle crossings of arterial streets, and give bicycles travel priority.

Photo: <http://www.bmorebikes.com/guilford-bike-blvd-construction-progress/>

Driveway improvements

Driveways present another challenge for walking. Sidewalks that remain level are preferred to sidewalks that dip down at each driveway. Some sidewalks slope at driveways and do not meet ADA guidelines if the grade of the slope is more than 2%. The sidewalk can wrap around the driveway ramp if needed to remain level, however this presents a challenge for those who have visual impairments. Most driveways observed meet ADA guidelines, but some should be improved.



Example of level sidewalk with driveway apron using sloped edge only. Most driveways on Main Street stand out to drivers and pedestrians through the use of contrasting concrete pavement.



Former fire station driveway is sloped, making it uncomfortable to walk on and not ADA compliant.

GETTING ACROSS THE STREET

Crossing Main Street currently presents a challenge to the pedestrian friendliness of the area. At Main Street and Broad Street, lack of pedestrian signals combined with turning vehicles makes it confusing for drivers and pedestrians as to when people are expected to cross. Between Broad Street and Industrial Road, 0.3 miles, there are no crosswalks. Lack of crosswalks along this commercial streets leads to frequent jaywalking. In some locations, the curbs have been extended with “bump outs” to reduce this distance, make crossing pedestrians more visible to drivers, and protecting parked cars.

Crosswalks

At minimum, crosswalks should be striped as wide as or wider than the sidewalk it connects to and use high-visibility markings that contrast with the pavement and are reflective at night. Crosswalks along the route walked on Main Street are only marked at Broad Street, and these lack countdown pedestrian signals. As a result, participants noticed people crossing at unmarked locations. Crosswalks should be added by DelDOT across Main Street at the Everett Theatre and Wood Street, and across Broad Street at Green Street. Middletown should also add crosswalks on Scott Street across A Street, and across town hall driveways on Green Street.

Crosswalks can also be installed using materials to add color and texture—helping to give unique character to the neighborhood. This can be done using textured and/or colored concrete or high friction surface epoxy. Some examples are below.



Corners

The design of the corner should provide access for all pedestrians including persons with disabilities, make drivers and those waiting to cross visible to one another, deduce the distance needed to cross and reduce excessive turning speeds by drivers.

Most locations lacked curb ramps that meet ADA standards. Curb ramps are important, not only for those persons with disabilities, but for others who may be pushing strollers, or rolling shopping carts, luggage, etc. Working with DelDOT and Middletown Department of Public Works, ADA curb ramps installed should be installed at all intersections. When possible, ramps should be installed for each crosswalk direction, rather than a single ramp per corner.

Bump-outs serve several important roles; with bump-outs drivers and pedestrians can clearly see one another, the distance to cross is significantly reduced and parking is protected. Larger bump-outs provide space for benches, planters, trash cans and other needs.



Signals

Existing and potential signals should be review with DelDOT Traffic to identify ways they can improve the walkability of the community. Improvements to consider at existing signals include:

- Shorten signal lengths if feasible, to reduce the wait time for pedestrians.
- Coordinate signal timing to give “green wave” for drivers traveling at the speed limit.
- Leading Pedestrian Interval gives pedestrians a 3–7 second head start when entering an intersection with a corresponding green signal in the same direction of travel.
- Consider pedestrian signals at unsignalized intersections. This might include a traditional pedestrian signal that stops traffic or newer types—a HAWK or Rectangular Flashing Beacon.



A HAWK or High-Intensity Activated crossWalk beacon (left) or Rectangular Flashing Beacon (right) is used to stop traffic only as needed. The signal remains unlit when not in use.

TRANSIT

Transit riders are pedestrians and must walk to reach bus stops and cross the street to reach destinations. DART Route 43 travels along Main Street between Middletown and Odessa but has no stops along the section visited during the Walkable Community Workshop. The nearest bus stops are at the Middletown Commons Shopping Center to the west and at the Bethesda United Methodist Church to the east, more than $\frac{1}{2}$ mile apart. A desirable walking distance to promote transit use is with $\frac{1}{4}$ mile, or a five minute walk, for a local service route bus stops, with approximately four bus stops recommended in a one-mile corridor.

Middletown should work with DART First State to install add least one additional bus stop on each side of the street in the corridor. Bus stops should be located near crosswalk locations. Benches, shelters and trash cans make waiting for the bus more comfortable.

Location of bus stops should be reviewed to make sure they are located close to safe places to cross. Benches and trash cans make waiting for the bus more comfortable. Locating bus stops at bump-outs help bus drivers spot waiting riders. Being well-lit at night is also important to ensure the visibility of waiting riders. Busy stops benefit from shelters or locations adjacent to building awnings to keep people covered by they wait.



AESTHETICS AND BEYOND

Places to sit, street lighting, public art, trash cans, and wayfinding information can elevate the character of a safe pedestrian environment into a more distinctive place and more vital, cohesive community. Shown below, many place-defining elements already enhance the community, including public art, banners, places to sit, and landscaping.



Participants noted that while Middletown has many placemaking elements, other opportunities exist.



Landscaping can also serve dual function as a buffered bump out around on street parking.



Photo: www.pedbikeimages.org/ Carl Sundstrom

Photo: www.pedbikeimages.org/ Dan Burden



Parking lots can be screened using planters, trees or other decorations.

Photo: www.pedbikeimages.org/ Dan Burden



Blank surfaces such as walls and traffic signal boxes, that might otherwise attract graffiti, can become canvases for local artists or even display art from student art classes.

Photo: www.seattle.gov



Outdoor dining was also identified as something that can be expanded. “Parklets” can transform off-street parking spaces into temporary outdoor seating. Parklets combine modular decking with railings, planters, and seating to create seasonal cafes. Narrow café seating located close to buildings may be another option.

Photo: universitycity.org/parklets



Middletown’s extensive trail system is an asset that can be strengthened with wayfinding signs.



Wayfinding Signs: Sources Healthy Duluth Area Coalition, City of Boston, St. Andrews School

FUNDING AND IMPLEMENTATION RESOURCES

FUNDING PROGRAMS AND CONTACTS

Town of Middletown

Town of Middletown is a good starting point for most recommendations from the Walkable Community Workshop. The Middletown Town Planner can be contacted at 302-378-1164 and the Middletown Main Street Program can be contacted at 302-378-2977.

DelDOT

DelDOT administers the **Transportation Alternatives Program (TAP)**. TAP offer funding opportunities to help expand transportation choices and enhance the transportation experience, formerly known as the Transportation Enhancements (TE) Program. TAP Activities

must relate to surface transportation. Eligible projects most related to the Walkable Communities include:

- Construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other nonmotorized forms of transportation
- Construction, planning, and design of infrastructure-related projects and systems that will provide safe routes for non-drivers, including children, older adults, and individuals with disabilities to access daily needs
- Safe routes to school program

In Delaware, projects require a twenty percent funding match.

Delaware Transportation Alternatives Program Coordinator
Jeff Niezgoda
Delaware Department of Transportation, PO Box 778, Dover, DE 19903
Tel: 302-760-2178
Fax: 302-739-2251
Email: Jeff.Niezgoda@state.de.us

State Elected Officials

Community Transportation Fund (CTF) funding provides a fixed amount of funds annually to each State Senator and House Representative to be used as they and their constituents believe is best for transportation improvements within their district. Legislators may also fund their own project ideas and they have the option of banking a portion of their yearly CTF budget for up to three years in order to fund a larger transportation improvement.

www.deldot.gov/information/pubs_forms/brochures/pdf/ctf_brochure.pdf

OTHER USEFUL LINKS

Pedestrian and Bicycle Information Center - www.pedbikeinfo.org

League of American Bicyclists - www.bikeleague.org

National Center for Bicycling and Walking - www.bikewalk.org

Federal Highway Administration - www.fhwa.dot.gov/environment/bikeped/index.htm

Manual on Uniform Traffic Control Devices (MUTCD) - mutcd.fhwa.dot.gov

NACTO Urban Street Design Guide - nacto.org/usdg

WILMAPCO - www.wilmapco.org/walk

APPENDICES:

BEYOND THE WALKABLE COMMUNITY WORKSHOP

WORKSHOP POWERPOINT

BEYOND THE WALKABLE COMMUNITY WORKSHOP: NEXT STEPS TO MAKE IT COUNT



A WILMAPCO Walkable Community Workshop is an important step in recognizing the need for walkability in your neighborhood. Yet, a workshop alone will not be enough to transform your community into a pedestrianfriendly environment overnight. To spur action, the next step involves creating a greater level of public awareness that increased walkability improves non-motorized safety, physical fitness, social interaction, and overall quality of life. The majority of action required is at the local level. Getting the results your community wants will take time, but is well worth the effort.

Here's what you can do after your community's walkable workshop to build interest, momentum and get desirable results:



Be Active

- ❑ Share the report and brief neighbors, community leaders, and other stakeholders who could not attend the walkable workshop.
- ❑ Identify community and individual actions that can help move your community in the right direction towards implementation.
- ❑ Use your community's report as a resource. It includes contact information for agencies and individuals who can help.



Get Involved

- ❑ Take small steps towards accommodating safe walking and biking, such as promoting safe crossing and cycling practices.
- ❑ Partner with local pedestrian and bicycle groups on events that promote safety and accessibility for non-motorized transportation.
- ❑ Advocate for necessary policy changes that support safe and walkable communities.
- ❑ Seek out ways to support changes in the way your community is planned and designed to ensure barriers to walkability are removed and new ones are not created.
- ❑ Work with your municipality to include provisions for non-motorized facilities in the transportation element of the Comprehensive Plan.



Find Support

- ❑ Contact WILMAPCO staff for further technical assistance and support.
- ❑ Attend government meetings to express interest in having more pedestrian and bicycle facilities and improvements to existing facilities.
- ❑ Contact your Legislators to address specific non-motorized concerns in your area.
- ❑ Develop support at your neighborhood level with groups such as civic associations and PTA's to assist in advocacy activities and implementation.
- ❑ Get the media involved in bringing awareness to the problems and highlighting solutions. Be specific about the issues and use a variety of communication strategies.



BEYOND THE WALKABLE COMMUNITY WORKSHOP: IMPLEMENTATION STRATEGIES



Together community members and partner agencies can take part in necessary activities to improve the pedestrian and bicycle environment. Strategic actions, both large and small, will help your community evolve over time to become more walkable and livable. And the more comprehensive the approach, the more likely your community will achieve long-term success.

Strategies and Solutions

Plans and Policies—Develop a plan that conveys the vision for your community and include prioritized short- and long-term goals based on greatest need and most benefits. For example, your community can create a Pedestrian Safety Plan which includes specific measures that reduce risks for pedestrians. Evaluate policies that support walkability. New policies or changes to existing policies may be necessary before implementation can begin.

Design and Engineering—Explore various designs that accommodate safe multimodal facilities. Consider appropriate designs that will control vehicle speeds where necessary, such as traffic calming techniques. Other measures may include reducing roadway width, incorporating raised medians, sidewalks, curb ramps, and other pedestrian-centered facilities. Better design practices encourage walking and bicycling.

Educate Drivers and Pedestrians—Education and awareness are tools that reshape the travel behavior of pedestrians, bicyclists, and motorists. Create education and outreach materials to raise awareness and encourage proper use of roadway and non-motorized facilities. Educational programs can be tailored to various age groups. Information should be disseminated in many forms such as flyers, non-motorized facility maps, public meetings, and forums.

Improve Access to Transit—Since transit users are pedestrians, walkability should include access to key destinations and to transit facilities. It is important that transit stops and their surrounding areas be safe and accessible for transit users. This will protect transit riders as well as providing support for and encouraging transit use.

Promote Physical Activity—Studies show that physical activity is increased with more walkable places. A walkable place gives people choices to walk along sidewalks in good condition and greenways, or bicycle along safe bike routes. Walking and biking can be promoted through plans and policies, community events, and school programs.

Seek Funding and Build Support—Finding funding to support and sustain necessary transportation improvements is often challenging. Moreover, financial constraints make project prioritization a key step. To help narrow down priorities, projects with an identified local and/or private funding match should take the lead in the development process. And for a greater advantage in implementation, consider tying non-motorized improvements into roadway projects that are already planned.



BEYOND THE WALKABLE COMMUNITY WORKSHOP: FUNDING RESOURCES



Pursuing necessary funding for project implementation is perhaps the most important step to make your community vision materialize. Since funding mechanisms to implement projects can vary try, not to limit your potential projects to federal and state resources. In addition to traditional funding streams, seek out grants, private sponsorships, and think of creative funding alternatives.



Funding Resources for Implementation

Safe Routes to School—The SRTS Program provides funding for a wide variety of programs and projects, such as creating safer street crossings and establishing programs that encourage children and their parents to walk and bicycle to school safely. This program requires local community support.

Transportation Enhancements—The TE Program provides funding opportunities to help expand transportation choices through activities related to surface transportation. Eligible projects include pedestrian and bicycle infrastructure, safety programs, scenic and historic highway programs, landscaping and scenic beautification, historic preservation, and environmental mitigation. A local match is required.

Community Transportation Fund—This fund is designated by individual legislators for specific transportation related projects. This fund allows individual legislators to address small transportation projects that may not meet department priorities. Commonly funded projects through this grant allocation are new sidewalks and repairs, curb-cuts, repaving, and drainage repairs.

Congestion Mitigation and Air Quality—The CMAQ Program funds projects that improve air quality and reduce congestion. Eligible bicycle and pedestrian projects include paths, bike racks, support and other facilities that reduce vehicle trips.

Municipal Funding—Municipalities often set aside funding for small non-motorized projects such as sidewalk and curb repairs, bicycle lanes striping, or pedestrian signals. For instance, Wilmington has set aside some funding for sidewalk repairs throughout the city.

Private Funding—Private sector funding sources can include local non-profit organizations, foundations that provide community grants, land trusts that have set aside funding for land to purchase trails, and large corporations and businesses. In addition, a public-private partnership can be established to leverage limited public funding.

Community Fundraising—Another approach is to find creative ways to break a large project into small pieces that can be "purchased" by the public through community fundraising. For instance, a fundraiser can be held to raise cash donations to match Transportation Enhancements funds.

Creative Funding Examples

Portland, OR—Community members sold bricks from historic areas to fund local sidewalk projects. The fundraiser had a great publicity and community support. Donor names were engraved in each brick and proceeds purchased basic sidewalk construction materials.

Ashtabula, OH—The local trail organization raised one-third of the funding needed to buy the land for a trail by forming a "300 Club." Three hundred acres were needed for the trail and they set a goal of finding 300 residents who would finance one acre each. The land price was \$400 an acre, and they found just over 100 people to buy an honorary acre, raising over \$40,000.

Colorado Springs, CO—The Rock Island Rail-Trail is being partly funded by the Rustic Hills Improvement Association comprised of a group of local homeowners living adjacent to the trail. Ten miles of the trail was cleared of railroad ties by a local boy scout troop.

BEYOND THE WALKABLE COMMUNITY WORKSHOP: POST-WORKSHOP EFFORTS



The WILMAPCO Region

Edgemoor Gardens, DE—Following the workshop, residents used their walkable workshop report to evaluate the best means for implementation. Together, residents teamed up to find alternative resources to fund needed improvements. The community applied for and received a private grant that provided funding for small scale pedestrian improvements at several key locations.



Southbridge, DE—After reviewing their report, residents requested that WILMAPCO develop a neighborhood-level prioritization process to rank the proposed improvements. Gathering community feedback on the technical scoring led to local support to begin implementation. Many of the recommendations are being addressed through the Safe Routes to School and a Transportation Enhancements Program. The program provided \$125,000 in funding to repair pedestrian facilities near the community's elementary school. A \$1.2 million Transportation Enhancements project was also initiated to address the neighborhood's more pressing traffic-calming and streetscape issues.

Northeast, MD—During the walking audit, workshop participants generated a list of potential solutions to address a narrow bridge overpass that makes travel for pedestrians and bicyclists unsafe. Those solutions were presented before the Town Council, planners, and developers, who decided on one of the alternatives suggested.

Perryville, MD—During the workshop, the Town of Perryville requested WILMAPCO's assistance in creating a greenway plan. WILMAPCO is currently working with the Town to create the Perryville Master Trail Plan which will connect the local library, school, and senior center.

Other Regions

Dayton, OH—After taking inventory of barriers to non-motorized travel, residents formed a "Walk! Downtown Committee" that meets monthly to discuss activities to encourage residents to live, work, and play downtown. The group also focuses on painting crosswalks at intersections, adding public art on the sidewalks, and adding artistic displays to vacant storefronts.

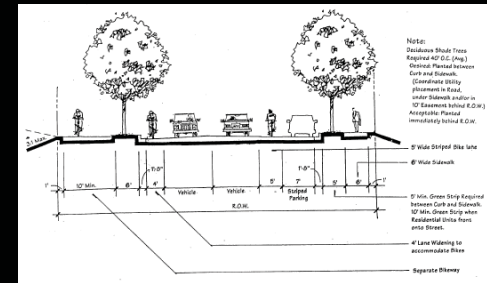


Glen Cove, NY—The Mayor of Glen Cove, who attended the workshop, decided the City should take a proactive approach towards traffic safety and non-motorized issues. Along a major street known for speeding vehicles, the City has planned to install traffic restrictors (humps) made of recycled tire pavers to give the appearance of a raised crosswalk. They have also re-striped crosswalks area-wide, improved pedestrian-scale lighting, and applied for two grants to fund a roundabout in the central business district and traffic calming in a neighborhood that is slighted by extreme cut-through traffic.

For more information, go to:

www.activelivingresources.org • www.americabikes.org • www.americawalks.org • www.apbp.org • www.bhsi.org
www.bicyclecoalition.org/member/delaware • www.bicyclinginfo.org • www.bikeleague.org • www.bikesbelong.org
www.bikewalk.org • www.deldot.gov/information/community_programs_and_services/bike
www.fhwa.dot.gov/environment/bikeped/index.htm • www.fhwa.dot.gov/environment/te/ • www.ibike.org
www.pedbikeimages.org • www.pedestrian.org • www.railtrails.org • www.safety.fhwa.dot.gov/saferoutes
www.transact.org • www.walkinginfo.org • www.walktoschool-usa.org • www.wilmapco.org/walk

- Mobility Friendly Design Standards - 1997
- Downtown streetscaping projects
- Walking/bicycling trails
- 1st Gold Level Delaware Healthy Community



A woman in a dark top stands at a podium, addressing a group of people seated at tables in a meeting room. The room has a large screen and a potted plant in the background.





III. Plan of Action



Elements of Livability



Benefits of Walkable Communities

- Less traffic, pollution & noise
- Less crime – “Eyes on the street”
- Better sense of community
- Economic benefits
- Travel choices for kids, seniors, people with disabilities, people w/out cars
- Healthy communities

Relationships are Everything



Focus on low cost, easy to implement solutions



Before



After



Health and the Built Environment

The result?



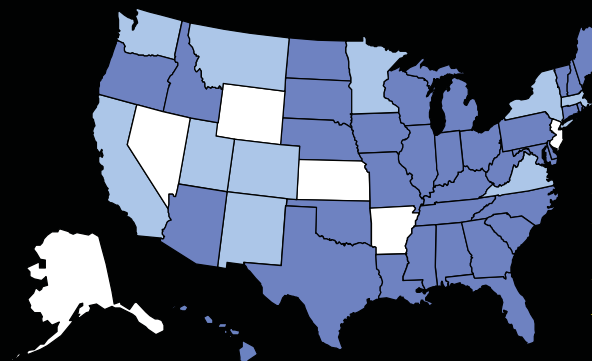
1956



2006



Obesity Trends* Among U.S. Adults 1990



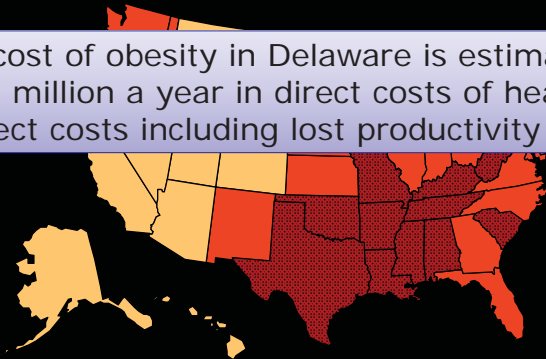
In only 20 years, we went from this...

■ No Data ■ <10% ■ 10-14%

(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)

Obesity Trends* Among U.S. Adults 2010

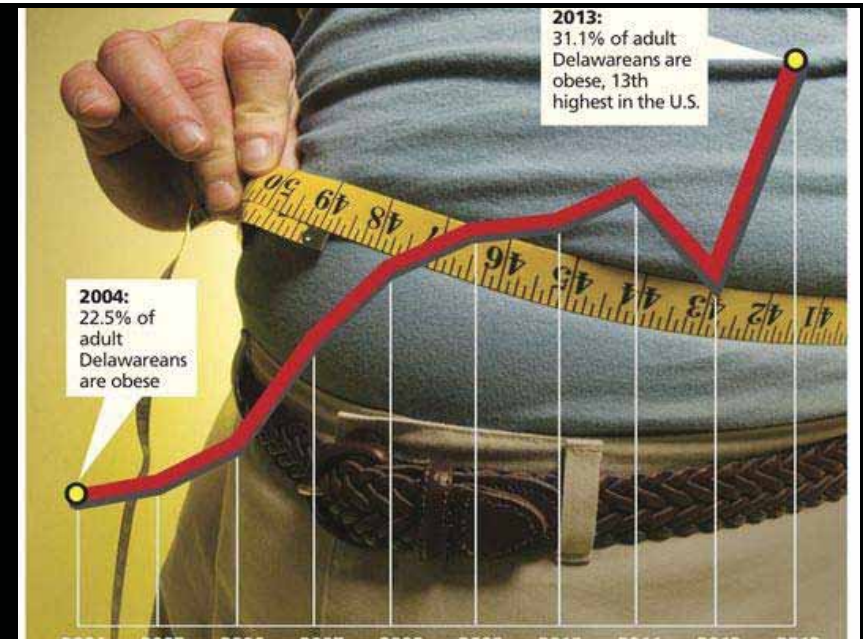
The cost of obesity in Delaware is estimated to be \$722 million a year in direct costs of health care and indirect costs including lost productivity



...to
this

■ No Data ■ <10% ■ 10%–14% ■ 15%–19% ■ 20%–24% ■ 25%–29% ■ ≥30%

(*BMI ≥30, or ~ 30 lbs. overweight for 5' 4" person)



Source: Delawareonline.com



If you're **inactive**, you have a
much higher risk of getting:

- Heart Disease and High Blood Pressure
- Colon Cancer
- Diabetes
- Osteoporosis/hip fractures
- Depression and anxiety
- Others - asthma, arthritis, back pain, alzheimers, stroke, premature mortality

Health Benefits of Walking:

- **3 hrs/wk** of brisk walking (3mph) reduced heart disease risk in women by **35-40%**
- Older adults who walked at least 4 hrs/week were **31% less likely** to be hospitalized for heart disease or stroke.
- Women who walked at least 1 hr/wk reduced risk of heart disease **by 50%** (amount more important than pace).



Travel choices

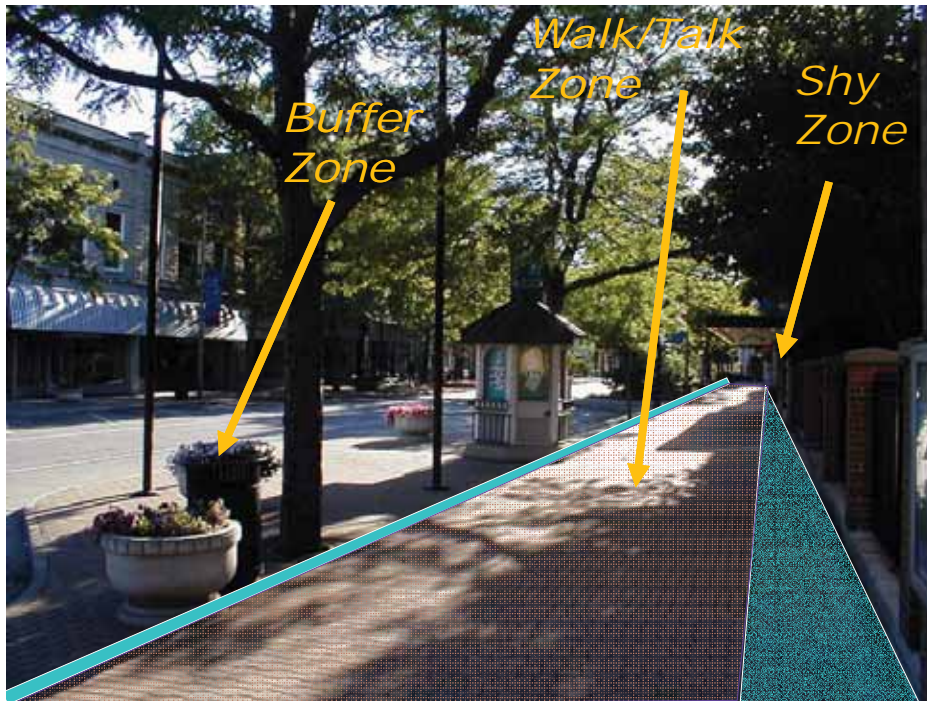
30% or more of residents in your community do not have direct access to an automobile



People want a safe place to live

I. Getting Along the Streets Sidewalks





What's wrong with this picture?



Minimum Width – 5 Feet

Preferred Width – 6 Feet



Not Walkable

High Car Dependency

Serious Congestion

Walkable

Low Car Dependency

Moderate Congestion



Sidewalk Buffers



ADA - Universal Design



It's About All of Us

Wheelchair Accessible?



Apron Goes Through Sidewalk



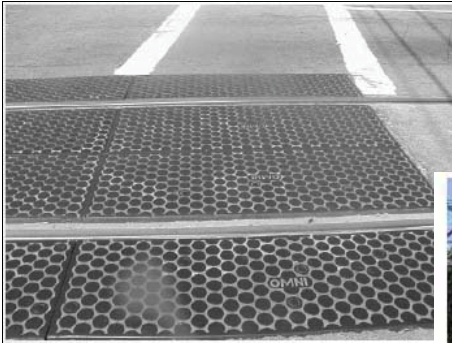
Apron Does Not Go Through Sidewalk

Sidewalk Continues Across Driveway



Good Engineering Invites Right Use





Railroad crossings should accommodate walking and bicycling



Obstacle Course



Lowest Cost Sidewalks



Widen Sidewalks

Bicycle facilities



Pathways



Sidewalk/bicycle route issues

- Missing / damaged sidewalk or bike route
- Uneven / sloping walkway
- Sidewalk blocked
- Driveways
- No bike lane or too narrow / wide
- Network of paths for off-road trips

2. Getting Across the Street Intersections & Crosswalks



What's wrong with this picture?



What's wrong with this picture?



Where would you rather cross?



Which crosswalk will get the driver's attention?





High Visibility Crosswalk



Rectangular Rapid Flashing Beacon

High Visibility Crosswalk



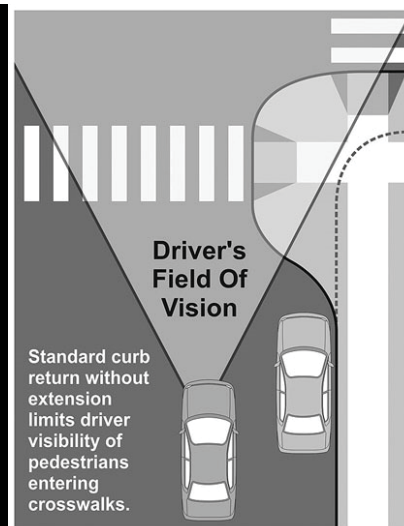
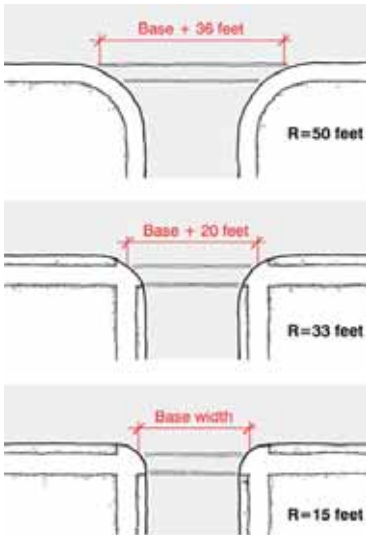
In-street yield signs

Pedestrian signs: new color increases visibility

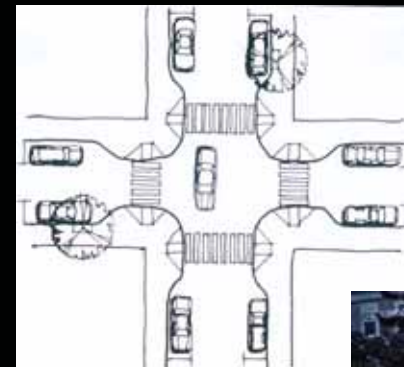




Pedestrian flags



- Shorter crossing distance
- Slower turning vehicles
- More visible pedestrians



Curb Extensions





Paint
Is Your
Friend



Countdown Signal



Maximum Width of a
Curb Bulb: Six Feet

Curb Bulbs Improve
Sight Distance



Crossing
Islands

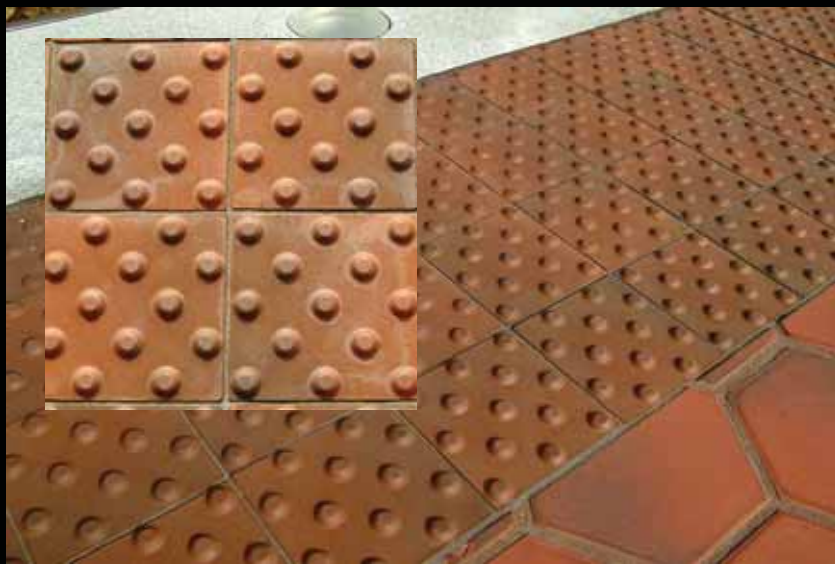




Two Ramps Per
Corner

Eight Ramps Per
Intersection

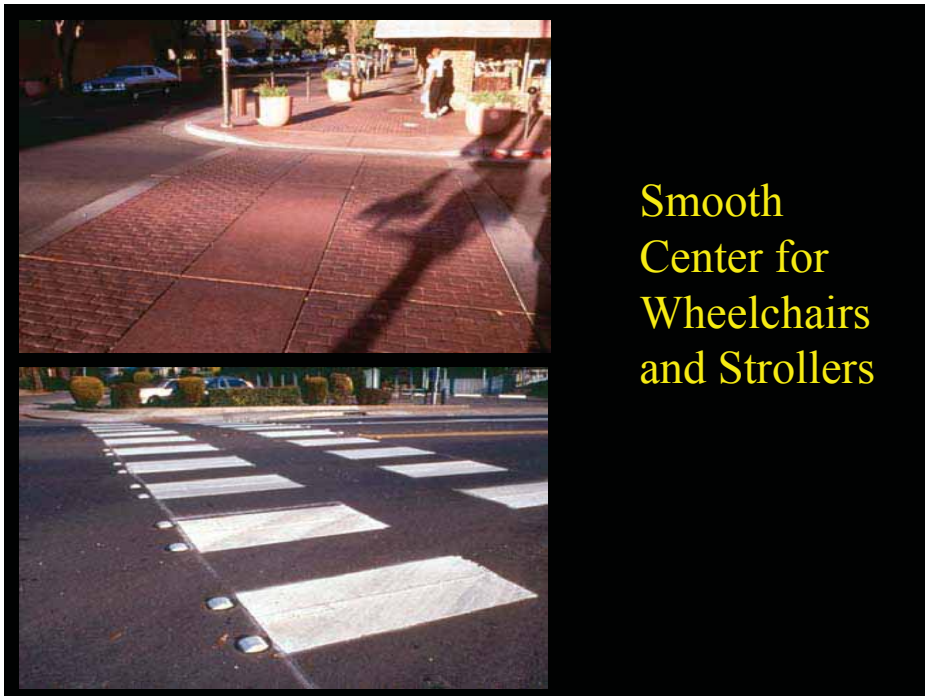
Truncated Domes



Truncated domes provide tactile clues



What the pedestrian sees



Crossing Issues

- Broken or missing pedestrian ramps
 - *Construct/restore ADA accessible ramps*
- Faded or hard to see markings
 - *Remark crosswalks / stopbars*
- Turning vehicles failing to yield
 - *Improve signs and pavement markings*
 - *Shorten crossing distance*
- Poor draining or ponding in crosswalks
 - *Drainage improvements*

3. Transit



What's
wrong
with
this
picture?



Transit Trips Are
Partly Walking Trips



Transit Stop Equals
Crosswalk

Transit Use



Directly Linked
to Sidewalks

Rider needs

- Weather Protection
- Places to Sit
- Lighting
- Public Art
- Trash Receptacles
- Newspaper Boxes
- Schedule Information
- Place to cross the street



4. Aesthetics and Beyond



What's wrong with this street?



Creature comforts

- Bathrooms
- Places to sit
- Lighting
- Public art
- Trash cans
- Newspaper boxes
- Maps/directions



Great Trees



Tree Whackers

Ten Foot Up, or
Knee High



Lighting can reduce crime

National Crime
Prevention Council has
found that crime can be
reduced by 40% after the
installation of street lights

Street Lighting



Defining Place



Defining Place



Functional Art



Great Cities Have Great Places to Sit



Outdoor Cafes



Safe routes to school

30% Middletown residents
younger than age 16



Right Design
Invites Right Use

Which Street Has
Lower Speeds?



Narrow lanes reduce speeds



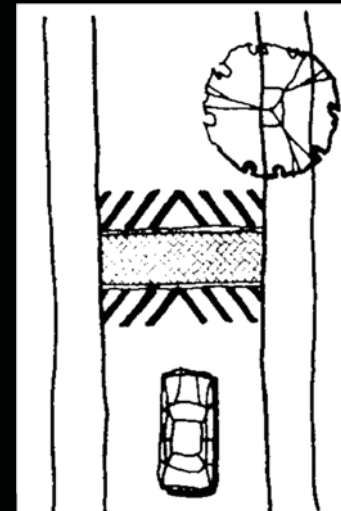
Portable speed limit signs



Mini-Circles



Median Slow Points



Raised Crosswalk



Test ideas



Walkable Retail



People Shop Where They Live

Steps to a walkable community

- Build ways to get **along** the street
- Create ways to get **across** the street
- Have comfortable and accessible **transit** facilities
- Plan nice **design** and **places** to walk or bike
- **Slow** speeding traffic
- Develop safe **routes to schools** (and shops, jobs, parks, libraries, churches, ...)



Now lets get walking!

Thank you!

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