



# Community Assessment Tool



Pedestrian and Bicycle Information Center



Note: This document should be used for preparation and planning uses only—do not submit it to Walk Friendly Communities staff as a completed application.

To submit an application, you must create an account at [assessment.walkfriendly.org](https://assessment.walkfriendly.org)

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# INSTRUCTIONS

## ***Purpose of the Walk Friendly Communities (WFC) Assessment Tool***

The purpose of this tool is twofold; it serves to both recognize existing walkable communities and to provide a framework for communities seeking to improve their walkability. This tool recognizes communities that have achieved high levels of walking and low rates of pedestrian crashes, while also recognizing communities that are making progress in achieving these two goals through policies, projects, and programs. Recognizing that there are many ways to achieve these outcomes, the range of questions in this tool attempts to capture the variety of factors that affect walkability.

There are several benefits of completing this form. First, the WFC assessment tool contains information and resources to assist agencies in improving walking conditions for your community. Through the questions and resources in this form, communities will be able to identify areas of needed improvement and use the tools to develop specific solutions. Completing this form also requires collaboration between government agencies, private not-for-profits, and the private sector, thus building stronger relationships in your community. Another advantage of this tool is that it creates a great internal resource for communities by documenting all walking-related programs, projects, and policies in one place. Most communities will be surprised by the amount they are already doing for walkability. Finally, submitting the assessment to the Pedestrian and Bicycle Information Center (PBIC) for scoring provides the opportunity for your community to be recognized with a designation of bronze, silver, gold, or platinum, in terms of conditions for increased and safer walking. This designation has many benefits of promoting walkability both within your community and through friendly competition with other cities.

## ***Completing the WFC Assessment Tool***

Most of the information requested for completion of this assessment tool can be soundly estimated or is relatively easy to find. The information needed to complete this assessment will likely come from a variety of municipal, county, and school district agencies and departments including the police, planning, public works, and engineering departments, and the local transit service provider. Other information that is requested may be most easily provided by local nonprofit organizations, advocacy groups, elected officials, or even a simple internet search. It is likely that the transportation agency will take the lead in this effort, but it will be important to coordinate across agencies when filling out this application. In some cases one department, such as the city or town's engineering department, will be able to complete an entire section. In other cases, it will make the most sense to have agencies or individuals, like a local Safe Routes to School task force or coordinator, answer certain questions.

## ***How to Answer Questions***

There are several different types of questions included in this assessment tool. We have described them here to clarify how each one should be answered.

For some questions, this assessment tool asks about your municipality's plans, policies, projects, and programs. In those cases, please include a link (web address) or attachment to those

documents if possible. If the question requests a brief description, please summarize the policy, activity, or process in your own words. If a concise summary already exists, you may link to that summary or use that description. Include in your summary a description of the nature, scope, and results of the policy, program, or project in question.

Several questions request a substantial amount of information. Frequently, the checklists and examples are meant to act as a prompt or to jog the applicant's memory, rather than to indicate that any municipality should be implementing all the measures listed. Please be detailed in your responses and answer the questions to the best of your ability.

Open-ended questions such as those asking for descriptions of measures do not have a word limit on the electronic application.

Some questions are simple yes/no or checkbox questions. In those cases, please check the appropriate box and include a hyperlink or attachment to the most up-to-date version of any requested ordinance, policy, plan, or relevant document. Attachments must be in RTF, PDF, or Word DOC format.

Though this assessment tool is meant to be comprehensive, we recognize that each community is unique. Every city and town will have its own unique set of challenges and opportunities, so each will have a different approach to pedestrian issues. Accordingly, each section concludes with a question that offers applicants the opportunity to describe or elaborate on anything that your community is doing that may not have been addressed in the other questions.

### ***What to Look For***

When answering these questions please think broadly. Do any state or national programs (not directly implemented by you) have a positive impact in your community? Are there policies administered by other local departments that may affect the walking environment? Are there private organizations or advocacy groups doing work in your community?

When completing this assessment tool, please be certain to mention any evidence-based programs or approaches your community is using, any in-depth or ongoing programs or activities, and any specific efforts to create a community-wide culture of walking. This assessment tool seeks to learn how communities are supporting walking and pedestrian safety and how well those efforts are working. Therefore, please describe both the nature of your policies, programs, and projects as well as any outcome or evaluation of those approaches.

### ***Criteria and Scoring***

This assessment tool is divided into eight sections:

- Community Profile
- Status of Walking
- Planning
- Education & Encouragement
- Engineering
- Enforcement

- Evaluation
- Additional Questions

All sections will be scored, including bonus points from the additional questions. The scoring system will be based on percent and scores are assigned based on the number of questions in the section, the depth of information required in those questions, and the potential impact on walkability of the content addressed in each question. Some cities may be at an advantage for certain questions; however, these same cities will be negatively impacted by other questions. For example, an older city like Cambridge, MA, has very narrow streets thus impacting sidewalk width and buffers, but it has a high connectivity index and land use mix.

Except for the Community Profile section, none of the questions in the application require a response. Communities are, however, encouraged to respond to as many questions as they possibly can.

## COMMUNITY PROFILE

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This section provides applicants with a chance to describe their communities. Having an understanding of the geographic, demographic, and economic makeup of the community can help explain the challenges and opportunities that the community faces when planning for walking.

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### 1 Contact Information

<b>Name of Community:</b>	Click here to enter text.
<b>Mayor or top official (include title):</b>	Click here to enter text.
<b>Mayor's Phone:</b>	Click here to enter text.
<b>Community Contact Name:</b>	Click here to enter text.
<b>Position/Employer:</b>	Click here to enter text.
<b>Contact Address:</b>	Click here to enter text.
<b>City:</b>	Click here to enter text.
<b>State:</b>	Click here to enter text.
<b>Zip:</b>	Click here to enter text.
<b>Phone/Fax:</b>	Click here to enter text.
<b>Email:</b>	Click here to enter text.
<b>Website:</b>	Click here to enter text.

## 2 Pedestrian Coordinator & Government Staff

List your official pedestrian coordinator or pedestrian issues contact person on government staff, and identify his/her department.

<b>Contact Person:</b>	Click here to enter text.
<b>Contact Person Department:</b>	Click here to enter text.

<b>How many hours are spent per year in this capacity?</b>	Enter text
<b>Is this person also the bicycle coordinator?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No

<b>List all other government staff or contractors whose primary duties are devoted to walkability and pedestrian safety issues:</b>	Click here to enter text.
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<b>Do you have a Pedestrian Advisory Committee, Ped/Bike Council, or other venue for citizen input?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If yes, please provide the name of the Chair and their contact information:</b> Click here to enter text.	
<b>Do you have an independent pedestrian advocacy organization?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If yes, please provide the name and contact information:</b> Click here to enter text.	
<b>Has your Mayor signed the <a href="#">International Charter for Walking</a><sup>1</sup> or a similar pledge to improve the conditions for walking in your community?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If so, please provide details:</b> Click here to enter text.	

## 3 Community Profile\*

<b>Population:</b>	Click here to enter text.
<b>Area of municipality (sq mi):</b>	Click here to enter text.
<b>Population density:</b>	Click here to enter text.
<b>Park land (sq mi):</b>	Click here to enter text.

### Age Distribution

<b>% under 20:</b>	Click here to enter text.
<b>% age 20-64:</b>	Click here to enter text.
<b>% age 65-84:</b>	Click here to enter text.
<b>% over 85:</b>	Click here to enter text.

\*Use [U.S. Census data](#)<sup>2</sup> to find demographic and socioeconomic information.

<sup>1</sup> [www.walk21.com/charter/](http://www.walk21.com/charter/)

<sup>2</sup> <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

# STATUS OF WALKING

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This assessment tool seeks to learn how *much* people are walking and how *safe* they are when they are doing so. Therefore, the outcomes that are most significant for the purposes of this tool are the numbers of walkers and the number of pedestrian crashes. Walk Friendly Communities is looking for communities that have created environments in which many people walk *and* pedestrian crash rates are low, or those communities that are making significant progress towards those ends. These two questions focus on these specific outcomes, while other questions in this survey address what measures are used by communities to facilitate walking and improve safety.

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**1 According to the 2010 Census, what percentage of residents used the following modes for their commute to work?**

<b>Walking</b>	Click here to enter text.
<b>Bicycling</b>	Click here to enter text.
<b>Public transit</b>	Click here to enter text.
<b>Single-occupant vehicles</b>	Click here to enter text.
<b>Carpool</b>	Click here to enter text.

Please also provide the latest walking percentage of commuting to work from the 5-year estimates of the American Community Survey.

	<b>2006-2010</b>	<b>2010-2014</b>
<b>Walking</b>	Click here to enter text.	Click here to enter text.
<b>Public transit</b>	Click here to enter text.	Click here to enter text.

If your community conducts its own travel counts, please include a link, attachment (RTF, PDF, or word document), or description of those count results.

<b>Web Link or Attachment:</b>	Click here to enter text.
<b>Count Results Description:</b>	Click here to enter text.

**Rationale:**

The U.S. Census Bureau’s [American Community Survey](#)<sup>3</sup> and [National Household Travel Survey \(NHTS\)](#)<sup>4</sup> data can help communities determine how people in their region are traveling. Census data can help provide information about the prevalence of walking. This data, as well as locally collected walking counts and NHTS data can be used in conjunction with crash data to provide justification for pedestrian safety improvements.

**Resources:**

Other useful travel data come from the [National Survey of Pedestrian and Bicyclist Attitudes and Behaviors](#).<sup>5</sup>

**WFC Example:**

See how **San Francisco’s** [WalkFirst project](#) [PDF]<sup>6</sup> used Census data to understand pedestrian activity factors and locations in the city.

**2 How many pedestrian/motor vehicle crashes were reported in each of the last five years; and how many of these crashes resulted in injuries and fatalities?**

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Number of Pedestrian Motor Vehicle Crashes</b>	Click here to enter text.				
<b>Number of Pedestrian Injuries</b>	Click here to enter text.				
<b>Number of Pedestrian Fatalities</b>	Click here to enter text.				

**Rationale:**

Knowing how many pedestrians were reported is essential when planning for pedestrian safety. Understanding common accident types and locations can help communities determine the best countermeasures for improving the safety of pedestrians. However, since the number of fatalities alone can often be quite low, especially for small towns, agencies should also have a way of counting and tracking pedestrian-motor vehicle crashes that do not result in fatalities.

**Resources:**

More information on [finding pedestrian data and statistics](#)<sup>7</sup> from PBIC. The National Highway Traffic Safety Administration hosts the [Fatality Analysis Reporting System](#),<sup>8</sup> a database of fatal motor vehicle crashes where users can find specific information about crashes, including those involving pedestrians.

**3 Long-term trends**

**What long-term trends in walking volumes and pedestrian/motor vehicle crashes has your community observed?**

Click here to enter text.

<sup>3</sup> <https://www.census.gov/acs/www/>

<sup>4</sup> <http://nhts.ornl.gov/>

<sup>5</sup> <http://www.nhtsa.gov/Driving+Safety/Research+&+Evaluation/National+Survey+of+Bicyclist+and+Pedestrian+Attitudes+and+Behavior>

<sup>6</sup> *Beginning with Chapter 3:* [http://www.sf-planning.org/ftp/files/Citywide/WalkFirst/WalkFirst\\_Final\\_Document\\_102711.pdf](http://www.sf-planning.org/ftp/files/Citywide/WalkFirst/WalkFirst_Final_Document_102711.pdf)

<sup>7</sup> <http://www.pedbikeinfo.org/planning/tools.cfm>

<sup>8</sup> <http://www.fars.nhtsa.dot.gov/Main/index.aspx>

**Resources:**

See the 15-year status [report](#) [PDF]<sup>9</sup> from PBIC for trends and changes in bicycling and walking since the 1994 National Bicycling and Walking Study.

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<sup>9</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=4541>

# PLANNING

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Pedestrian issues are addressed at many different levels of planning, ranging from neighborhood plans to city, county, state, and federal policies and plans. A comprehensive pedestrian plan should address all five Es (education, encouragement, enforcement, engineering, and evaluation) along with public involvement. With thorough planning, a community can become proactive rather than reactive in addressing issues of pedestrian accessibility, safety, and aesthetics. Planning involves soliciting public input, collecting information about current and future conditions, and considering what policies, plans, programs, and resources a municipality will require to meet your community's needs.

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## 1 Pedestrian Plan

<b>Has your community adopted a pedestrian plan or pedestrian safety action plan?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Please provide a link or attachment of the action plan.</b> <a href="#">Click here to enter text.</a>	
<b>If yes, what year was the plan adopted?</b>	<a href="#">Click here to enter text.</a>
<b>How does this plan interact with or relate to your other planning documents?</b> <a href="#">Click here to enter text.</a>	
<b>What performance indicators or other techniques does your community use to monitor completion?</b> <a href="#">Click here to enter text.</a>	
<b>Does your community's pedestrian plan or other adopted plan or policy establish a target mode share for walking?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If yes, what is the target walking share?</b>	<a href="#">Click here to enter text.</a>
<b>Does the plan have a safety goal (such as the reduction in pedestrian crashes)?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If yes, what is the target crash reduction?</b>	<a href="#">Click here to enter text.</a>
<b>Does the plan include any other benchmarks or performance indicators?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If so, please describe:</b> <a href="#">Click here to enter text.</a>	

<b>What elements of the plan are complete? (Indicate what percent of the plan is complete, if possible.)</b> <a href="#">Click here to enter text.</a>
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**Rationale:**

Communities can address pedestrian issues using a variety of plan types, such as comprehensive plans, capital improvement plans, or long-range transportation plans. Indeed, it is essential that pedestrian planning be included in all such plans. However, dedicated pedestrian plans indicate a community's commitment to pedestrian issues and may help assure that these issues are given sufficient attention in the planning process. Pedestrian plans can also focus attention on implementation, especially if the plan

specifies responsibilities, creates accountability, and designates funding sources for projects and programs. In addition, having a documented pedestrian plan with specific priorities can help agencies plan to use limited resources, such as staff time and money, more efficiently.

By creating target mode shares, communities have specific goals and benchmarks by which they can measure their progress. Including (and making progress towards achieving) a goal to increase walking as a form of transportation indicates a community's commitment to supporting pedestrian issues and its ability to do so.

Integrating pedestrian considerations into all planning documents allows city staff across multiple agencies to comprehensively plan streets that safely accommodate walking.

#### **Resources:**

High quality pedestrian plans will draw on public participation, comprehensive baseline data, safety concerns, and anticipated demand to prioritize projects and improvements. Plans should also include a community-driven vision and SMART (Specific, Measurable, Attainable, Relevant, and Time-bound) goals.

See more information on specific pedestrian [planning activities](#) on the PBIC website.<sup>10</sup> An international scan team gathered information on European bicycle and pedestrian safety to provide [ten recommendations](#) [PDF]<sup>11</sup> for effective approaches in the U.S. For guidelines on creating a safety-focused pedestrian plan, see [How to Develop a Pedestrian Safety Action Plan](#) [PDF].<sup>12</sup> To learn more about what policies can promote non-motorized transportation, refer to this [FAQ](#).<sup>13</sup>

New York City used crash data to address pedestrian safety issues for a specific demographic group in the creation of the [Safe Streets for Seniors](#)<sup>14</sup> plan. Florida's [Guide for the Review and Assessment of Local Mobility Plans](#)<sup>15</sup> provides goals and criteria for evaluating plans.

#### **WFC Examples:**

One of the main reasons Platinum-level **Seattle, WA's**, [Pedestrian Master Plan](#)<sup>16</sup> is such a successful document is the clear establishment of goals and measurable performance indicators. With the objective of becoming the country's most walkable city, Seattle established baseline measurements, performance targets, and data collection processes to improve walkability. Silver-level **Bellevue, WA's**, [Pedestrian and Bicycle Transportation Plan](#)<sup>17</sup> has guided pedestrian and bicycle system investments in Bellevue for over two decades.

Gold-level **Washington D.C.** has a comprehensive [Pedestrian Master Plan](#)<sup>18</sup> that establishes clear annual benchmarks and includes implementation policies. The plan has two main performance indicators: reducing pedestrian deaths and injuries by five percent every three years, and increasing the number of pedestrians walking and using transit to work on an annual basis. The plan also includes cost estimates through 2018.

Adopted in January 2012, Bronze-level **Forest Park, IL's**, [Active Transportation Plan](#) [PDF]<sup>19</sup> outlines policies, programs, key places and implementation guidelines to reach ambitious targets for non-motorized mode shares and crash reduction. This plan is well-integrated with other plans in the community and integrated public input, with implementation monitored by a Pedestrian Task Force.

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<sup>10</sup> <http://www.pedbikeinfo.org/planning/index.cfm>

<sup>11</sup> [http://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/publications/global\\_benchmarking/page07.cfm](http://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/global_benchmarking/page07.cfm)

<sup>12</sup> [http://safety.fhwa.dot.gov/ped\\_bike/ped\\_focus/docs/fhwasa0512.pdf](http://safety.fhwa.dot.gov/ped_bike/ped_focus/docs/fhwasa0512.pdf)

<sup>13</sup> [http://www.pedbikeinfo.org/data/faq\\_details.cfm?id=4199](http://www.pedbikeinfo.org/data/faq_details.cfm?id=4199)

<sup>14</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=4553>

<sup>15</sup> [http://www.pedbikeinfo.org/cms/downloads/FDOT\\_BDK84\\_GuideforReviewAssessmentofLocalMobilityPlans.pdf](http://www.pedbikeinfo.org/cms/downloads/FDOT_BDK84_GuideforReviewAssessmentofLocalMobilityPlans.pdf)

<sup>16</sup> [http://www.seattle.gov/transportation/pedestrian\\_masterplan/](http://www.seattle.gov/transportation/pedestrian_masterplan/)

<sup>17</sup> [www.bellevuewa.gov/pedbikeplan.htm](http://www.bellevuewa.gov/pedbikeplan.htm)

<sup>18</sup> <http://ddot.dc.gov/node/478082>

<sup>19</sup> <http://www.smartgrowthamerica.org/documents/cs/impl/il-forestpark-plan.pdf>

In Gold-level **Corvallis, OR**, a Pedestrian Article (Article 11.6) was included in the [Transportation Element \[PDF\]](#)<sup>20</sup> of the city's Comprehensive Plan. Additionally, pedestrian issues area also addressed in the Downtown Parking Plan, the University Master Plan, and several area plans.

Gold-level **Eugene, OR**, made sure that other city planning efforts informed the development of goals, policies, and projects in the city's 2012 [Pedestrian and Bicycle Master Plan \[PDF\]](#).<sup>21</sup> The PBMP will also serve for the basis of the Eugene's Transportation System Plan.

In Silver level Bellevue, WA, the [sidewalk and curb ramp inventory project \[PDF\]](#)<sup>22</sup> guided local infrastructure investments based on a ranking methodology developed by cross-referencing areas of high activity with areas of low quality for pedestrians-- particularly persons with disabilities-- to determine areas for improvement.

Bronze-level **Flagstaff, AZ**, has a [Regional Land Use and Transportation Plan](#)<sup>23</sup> that establishes Level of Service policies for pedestrians. It establishes a target pedestrian LOS according to urban, suburban, or rural settings and describes appropriate facilities and standards for each combination of area type and LOS.

## 2 ADA Transition Plan

<b>Has your community adopted an ADA Transition Plan for the public right of way?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If so, please provide a link or attachment of the plan:</b> <a href="#">Click here to enter text.</a>	

**If yes:**

<b>What year was it adopted?</b>	<a href="#">Click here to enter text.</a>
<b>Has the ADA Transition Plan been updated?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If yes, what year?</b>	<a href="#">Click here to enter text.</a>
<b>Does the ADA Transition Plan address curb ramps and sidewalks?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Explain:</b> <a href="#">Click here to enter text.</a>	
<b>Does the ADA Transition Plan address street crossings and signals?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Explain:</b> <a href="#">Click here to enter text.</a>	
<b>Who is responsible for the implementation of ADA Transition Plan?</b> <a href="#">Click here to enter text.</a>	
<b>Is your transition plan being implemented?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Explain:</b> <a href="#">Click here to enter text.</a>	
<b>How is the ADA Transition Plan work funded?</b> <a href="#">Click here to enter text.</a>	

<sup>20</sup> <http://archive.corvallisoregon.gov/ElectronicFile.aspx?docid=209120#page=201>

<sup>21</sup> <http://www.centallanertsp.org/sites/default/files/Eugene%20PBMP%20Final%20small.pdf>

<sup>22</sup> [http://www.bellevuewa.gov/pdf/Transportation/ADA\\_sidewalk\\_curb\\_ramp\\_article.pdf](http://www.bellevuewa.gov/pdf/Transportation/ADA_sidewalk_curb_ramp_article.pdf)

<sup>23</sup> <http://www.flagstaff.az.gov/index.aspx?NID=2936>

<b>There are state roads in most communities. Has your state DOT adopted an ADA Transition Plan?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Is the state DOT transition plan being implemented?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Explain:</b> Click here to enter text.	

**Rationale:**

The Americans with Disabilities Act of 1990 requires public agencies with more than 50 employees to develop and implement an ADA transition plan. The purpose of a transition plan is to make the agency’s facilities and programs universally accessible. The improvements identified in agency transition plans should have been completed by January 1995, and the plans should be regularly updated so that communities continue to ensure the accessibility of publicly maintained facilities.

Communities that are truly dedicated to creating safe, walkable communities will plan comprehensively for all types of pedestrians. The status of a municipality’s transition plan and the means by which it is funded can indicate how a community prioritizes universal accessibility.

**Resources:**

See [A Checklist for Accessible Sidewalks and Street Crossings](#) [PDF]<sup>24</sup> for a summary of ADA guidelines for curb ramps, sidewalks, and other pedestrian features or the full [United States Access Board guidelines on public rights-of-way](#).<sup>25</sup> You can also refer to the Federal Highway Administration’s [frequently asked questions about ADA requirements](#).<sup>26</sup>

The Department of Justice guidance [ADA Best Practices Tool Kit for State and Local Governments](#)<sup>27</sup> provides technical assistance with ADA compliance.

For guidance on designing facilities for accessibility see the U.S. Access Board’s guide for [trails and other outdoor developed areas](#),<sup>28</sup> the [Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way](#).<sup>29</sup>

**WFC Examples:**

For an example of an ADA Transition plan and compliance evaluation, see this [report](#)<sup>30</sup> from Gold-level **Santa Barbara, CA**.

Every fiscal year, Gold-level **Eugene, OR**, sets aside funds for retrofitting existing curb ramps and sidewalks. Audible and visual crossing signals are also a priority in each phase of the Plan. Currently, 66 percent of all intersections have curb ramps at all four corners. The City continually gets feedback from working groups like the Human Rights Commission in order to address public opinion and prioritize new areas.

Silver-level **Charlottesville, VA**, approved its [ADA Transition Plan](#) [PDF] in May 2013.<sup>31</sup> The plan includes curb ramp and crosswalk improvements in conjunction with street paving projects.

<sup>24</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=67>

<sup>25</sup> <http://www.access-board.gov/prowac/>

<sup>26</sup> [http://www.fhwa.dot.gov/civilrights/ada\\_qa.htm#q11](http://www.fhwa.dot.gov/civilrights/ada_qa.htm#q11)

<sup>27</sup> <http://www.ada.gov/pcatoolkit/toolkitmain.htm>

<sup>28</sup> <http://www.access-board.gov/outdoor/>

<sup>29</sup> <http://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way/proposed-rights-of-way-guidelines>

<sup>30</sup> <http://www.santabarbaraca.gov/gov/accessibility/transition/default.asp>

<sup>31</sup> <http://www.charlottesville.org/home/showdocument?id=33416>

### 3 Complete Streets

<b>Has your community adopted a Complete Streets policy or ordinance?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If yes, please provide a link or attachment of the document:</b> <a href="#">Click here to enter text.</a>	

<b>Who is responsible for the implementation of the Complete Streets Ordinance?</b> <a href="#">Click here to enter text.</a>	
<b>How is Complete Streets work funded and implemented? (i.e. is it routinely funded as part of the project, funded with other set-aside funds, etc.?)</b> <a href="#">Click here to enter text.</a>	
<b>What challenges or barriers does your community face in implementing the Complete Streets policy?</b> <a href="#">Click here to enter text.</a>	
<b>Identify the most recent three non-freeway roadway widening projects and describe how your Complete Streets policy was implemented (or why it was not) :</b>	
<b>Project #1</b>	<a href="#">Click here to enter text.</a>
<b>Project #2</b>	<a href="#">Click here to enter text.</a>
<b>Project #3</b>	<a href="#">Click here to enter text.</a>

**Rationale:**

Complete Streets are designed and operate to enable safe and convenient access for all users. Pedestrians, bicyclists, motorists, and transit riders of all ages and abilities are able to safely move along and across a complete street. Complete Streets policies indicate a municipality’s commitment to planning for all modes, all ages, and all abilities. By adopting an official Complete Streets policy, some communities have been able to leverage more funding for pedestrian infrastructure and improvements from transportation budgets.

**Resources:**

For more information on the Complete Streets movement, see the [National Complete Streets Coalition](#),<sup>32</sup> as well as information on [Complete Streets Laws and Ordinances](#)<sup>33</sup> or [the FHWA guide](#)<sup>34</sup> to street design.

**WFC Examples:**

See [Seattle’s Complete Streets Ordinance](#)<sup>35</sup> for a model ordinance.

The [complete streets policy](#) [PDF]<sup>36</sup> in Silver-level **Alexandria, VA**, is exemplary, particularly due to its performance indicators.

**San Francisco’s Better Streets Plan**<sup>37</sup> is a set of implementation strategies and goals to provide and maintain a better streetscape and pedestrian environment. The plan “seeks to balance the needs of all street users, with a particular focus on the pedestrian environment and how streets can be used as public space.”

**Charlotte, NC’s, Urban Street Design Guidelines**<sup>38</sup> seek to implement elements of Complete Streets throughout the city. These guidelines provide mobility for motorists, while also ensuring the comfort and safety of pedestrians, bicyclists, and transit users.

Silver-level **Burlington, VT’s, Complete Streets** initiatives have received widespread community support. The city has a draft guidance document that contains a project reporting form and worksheets for the different

<sup>32</sup> <http://www.completestreets.org/>

<sup>33</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=3968>

<sup>34</sup> <http://www.fhwa.dot.gov/publications/publicroads/10julaug/03.cfm>

<sup>35</sup> <http://clerk.ci.seattle.wa.us/~scripts/nph-brs.exe?d=CBOR&s1=115861.cbn.&Sect6=HITOFF&l=20&p=1&u=/~public/cbor2.htm&r=1&f=G>

<sup>36</sup> <http://alexandriava.gov/uploadedFiles/localmotion/info/gettingaround/Street%20Resolution.pdf>

<sup>37</sup> [http://www.sf-planning.org/ftp/BetterStreets/proposals.htm#Final\\_Plan](http://www.sf-planning.org/ftp/BetterStreets/proposals.htm#Final_Plan)

<sup>38</sup> <http://charmeck.org/city/charlotte/Transportation/PlansProjects/Pages/Urban%20Street%20Design%20Guidelines.aspx>

street classifications in Burlington. Recent project examples include a roadway reconstruction that enhanced pedestrian safety and mobility, and a roadway repaving project that was used as an opportunity to “test” the Complete Streets design before making the improvements permanent.

#### 4 Public Input

**Please briefly describe how public input is included and used in municipal plan development.**

[Click here to enter text.](#)

**Please briefly describe the role that citizen participation, advisory board review, and/or the municipality’s pedestrian/bicycle advisory council play in the process of reviewing ongoing projects and new development.**

[Click here to enter text.](#)

**Please briefly describe how you assure that specific populations (like individuals with disabilities or low income groups) are included in the public input process.**

[Click here to enter text.](#)

**Please briefly describe how your community works with coalitions, advocates, and other departments and agencies to ensure that pedestrians are considered in all projects and documents.**

[Click here to enter text.](#)

**Provide any relevant links or attachments that indicate the formal and informal public participation and advocacy efforts in your community (i.e., a link to the pedestrian and bicycle advisory board website, if it exists, or documented guidelines for public participation in the planning process).**

**Website Link:**[Click here to enter text.](#)

#### Rationale:

Citizen participation is a critical component of any local government, and public input should be included in the planning and decision making processes. Including pedestrian stakeholders in the planning review process can help secure citizen support for projects and can help a municipality identify safety concerns that it may not have been aware of. Techniques to assure that individuals with disabilities are included in the public input process include providing announcements to agencies serving individuals with disabilities, holding meetings in accessible facilities, providing interpreters if requested, ensuring that websites are accessible to people using screen reading or screen enlargement software, and providing Braille or large print documents on request. Public participation is integral to the success of transportation planning and should be considered at every stage of the planning process, from collecting baseline data to conducting post-implementation evaluation.

#### Resources:

The University of Wisconsin’s Center for Land Use Education has a handbook [chapter about public participation](#)<sup>39</sup> [PDF] that covers how different techniques can achieve varying levels of public involvement.

#### WFC Examples:

Gold-level **Eugene, OR**, developed [Public Participation Guidelines](#) [PDF],<sup>40</sup> as part of the Diversity and Equity Strategic Plan, to better enable the public to identify priorities and solutions, and to allow the City to better understand community concerns.

<sup>39</sup> [http://www.uwsp.edu/cnr-ap/clue/Documents/PlanCommissions/PC4\\_PublicParticipation.pdf](http://www.uwsp.edu/cnr-ap/clue/Documents/PlanCommissions/PC4_PublicParticipation.pdf)

<sup>40</sup> <http://www.eugene-or.gov/DocumentCenter/Home/View/2227>

A city resolution in **Seattle** called for the formation of a [Pedestrian Master Plan Advisory Group](#)<sup>41</sup> that would reflect the diversity of Seattle residents. Along with city staff, the group helped advise the development of the Pedestrian Master Plan and conduct public outreach.

In 2010, Silver-level **Philadelphia**'s City Planning Commission founded the [Citizens Planning Institute](#)<sup>42</sup> as a way to help empower citizens to take a more effective and active role in shaping their neighborhoods. The goal is for graduates of the program to leave with a greater understanding of city planning and development in Philadelphia. Philadelphia has already graduated 120 citizens from 75 different neighborhoods throughout the city. There are core courses, along with electives that change each semester.

Bronze-level **Davidson, NC**, includes a section about the [Development Proposal Review Process](#) [PDF]<sup>43</sup> in the Town's Planning Ordinance.

## 5 Sidewalks

<b>Does the city have a policy requiring sidewalks on both sides of arterial streets?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>On both sides of collector streets?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Policy link:</b> <a href="#">Click here to enter text.</a>	
<b>Sidewalk funding and installation: (if applicable, please provide a link or attachment of the relevant ordinance or policy)</b>	
<b>Sidewalk funds link:</b> <a href="#">Click here to enter text.</a>	
<b>Does the city require sidewalks to be constructed or upgraded with all (or the vast majority of) new private development?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Explain:</b> <a href="#">Click here to enter text.</a>	

### Rationale:

The presence of sidewalks in a community is associated with higher levels of walking and physical activity.<sup>44,45,46,47,48</sup> Requiring developers to build sidewalks in conjunction with new construction is an effective and efficient way to create a comprehensive sidewalk network. A stringently enforced sidewalk construction policy can help municipalities fill in gaps in their sidewalk system and prevent gaps from occurring in the future. Constructing sidewalks along with other development can also be less expensive than retrofitting the right-of-way.

### WFC Examples:

<sup>41</sup> [http://www.seattle.gov/transportation/pm\\_pmpag.htm](http://www.seattle.gov/transportation/pm_pmpag.htm)

<sup>42</sup> <http://citizensplanninginstitute.org/>

<sup>43</sup> <http://www.ci.davidson.nc.us/DocumentView.aspx?DID=1300>

<sup>44</sup> Bureau of Transportation Statistics. (2004). *Sidewalks promote walking, BTS Issue Brief, No. 12*. Washington, DC: Department of Transportation. [http://www.bts.gov/publications/issue\\_briefs/number\\_12/pdf/entire.pdf](http://www.bts.gov/publications/issue_briefs/number_12/pdf/entire.pdf)

<sup>45</sup> Fulton, J.E., Shisler, J.L., Yore, M.M., & Casperson, C. (2005). Active transportation to school: Findings from a national survey. *Research Quarterly for Exercise & Sport*, 76(3), 352-357. <http://www.ncbi.nlm.nih.gov/pubmed/16270712>

<sup>46</sup> Institute of Medicine. (2005). Does the built environment influence physical activity? Examining the evidence. Washington, DC: *Institute of Medicine and Transportation Research Board of the National Academies, Report No. 282*. <http://www.trb.org/Main/Blurbs/155343.aspx>

<sup>47</sup> Saelens, B.E. & Handy, S.L. (2008). Built environment correlates of walking: A review. *Medicine & Science in Sports & Exercise*, 40(7S), S550-S556. <http://www.ncbi.nlm.nih.gov/pubmed/18562973>

<sup>48</sup> Owen, N., Humpel, N., Leslie, E. Bauman, A., & Sallis, J. F. (2004). Understanding environmental influences on walking: review and research agenda. *American Journal of Preventive Medicine*, 27(1), 67-76. <http://www.ncbi.nlm.nih.gov/pubmed/15212778>

Bronze-level **Cary, NC**, maintains an [annual sidewalk project priority list](#)<sup>49</sup> that considers a number of factors including safety, use, need, and constructability. This list is easily accessible on the web. There is a [petition process](#)<sup>50</sup> for residents that would like their area to be on the project list.

Gold-level **Ann Arbor, MI**, has an ambitious [sidewalk and ramp repair program](#)<sup>51</sup> that will repair all existing sidewalks over the next five years, while continuing to bring sidewalk ramps into ADA compliance.

To enhance their complete sidewalk network, Silver-level **Santa Monica, CA**, has an [advanced sidewalk repair reporting process](#). The public can submit reports online or through an app on their phones. Additionally, nearly all of the city’s sidewalks have ADA accessible ramps on all four corners at intersections.

In Gold-level **Minneapolis**, over 90 percent of streets in the city have complete sidewalks and over 80 percent of streets have sidewalks on both sides of the street. The city’s Sidewalk Inspections Office conducts an annual sidewalk and curb ramp repair program that replaces any defective sidewalks and curb ramps on a regular basis.

Silver-level **Burlington, VT**, has nearly 100 percent sidewalk coverage. They have an integrated [strategic sidewalk plan](#)<sup>52</sup> with a prioritization process that accounts for various aspects of pavement condition, in addition to surrounding land uses and generators.

## 6 Connectivity

<p><b>Has your community established a connectivity policy, pedestrian-friendly block length standards and connectivity standards for new developments, or convenient pedestrian access requirements?</b></p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p><b>If yes, please provide a link or attachment of the policy or ordinance:</b> <a href="#">Click here to enter text.</a></p>	
<p><b>If yes, please provide information on the coverage area of this policy (e.g. downtown, certain districts, entire city):</b> <a href="#">Click here to enter text.</a></p>	
<p><b>If applicable, please describe an example a project that restored or improved the street grid.</b> <a href="#">Click here to enter text.</a></p>	

### Rationale:

Street connectivity is associated with higher levels of physical activity.<sup>53,54,55,56,57,58,59</sup> Grid networks and short block lengths (less than 800 feet) help make cities more walkable by creating multiple direct routes that can decrease walking distance compared to longer blocks or curvilinear street systems.<sup>60</sup> In addition, higher

<sup>49</sup> [http://budget.townofcary.org/engineering/SidewalkWeb\\_noside.htm](http://budget.townofcary.org/engineering/SidewalkWeb_noside.htm)

<sup>50</sup> <http://www.townofcary.org/Departments/fdts/streetsandsidewalks/sidewalkprojects.htm>

<sup>51</sup> <http://a2gov.org/sidewalk>

<sup>52</sup> <https://www.burlingtonvt.gov/DPW/Sidewalk-Strategic-Plan>

<sup>53</sup> Frank, L.D., Andresen, M.A., & Schmid, T.L. (2004). Obesity relationships with community design, physical activity, and time spent in cars. *American Journal of Preventive Medicine*, 27(2), 87-96. <http://www.ncbi.nlm.nih.gov/pubmed/15261894>

<sup>54</sup> Frank, L.D., Sallis, J.F., Conway, T.L., Chapman, J.E., Saelens, B.E. & Bachman, W. (2006). Many pathways from land use to health: Associations between neighborhood walkability and active transportation, body mass index, and air quality. *Journal of the American Planning Association*, 72(1), 75-87. <http://www.informaworld.com/smpp/content~content=a787384888~db=all~order=page>

<sup>55</sup> Saelens, B. E., Sallis, J. F., Black, J. B. & Chen, D. (2003). Neighborhood-based differences in physical activity: An environment scale evaluation. *American Journal of Public Health*, 93(9), 1552-1558. <http://www.ncbi.nlm.nih.gov/pubmed/12948979>

<sup>56</sup> Smith K.R., Brown B.B., Yamada I., Kowaleski-Jones L., Zick C.D., & Fan J.X. (2008). Walkability and body mass index density, design, and new diversity measures. *American Journal of Preventive Medicine*, 35(3), 237-44. <http://www.ncbi.nlm.nih.gov/pubmed/18692736>

<sup>57</sup> Krizek, K. J. (2003a). Operationalizing neighborhood land use-travel behavior research and regional modeling. *Journal of Planning Education and Research*, 22, 270-287.

[http://www.hhh.oit.umn.edu/centers/slp/transportation/bicycling\\_nonmotor/pdf/OperationalizingNeighborhoodAccessibilityforLandUse-Krizek.pdf](http://www.hhh.oit.umn.edu/centers/slp/transportation/bicycling_nonmotor/pdf/OperationalizingNeighborhoodAccessibilityforLandUse-Krizek.pdf)

<sup>58</sup> Krizek, K. J. (2003b). Residential relocation and changes in urban travel: does neighborhood-scale urban form matter? *Journal of the American Planning Association*, 69(3), 265-281. <http://trid.trb.org/view.aspx?id=662326>

<sup>59</sup> Berrigan, D., Pickle, L. W., & Dill, J. (2010). Associations between street connectivity and active transportation. *International Journal of Health Geographics*, 9(20), 1-18. <http://www.ncbi.nlm.nih.gov/pubmed/20412597>

<sup>60</sup> Dill, J. (2004). *Measuring network connectivity for bicycling and walking*. <http://reconnectingamerica.org/assets/Uploads/TRB2004-001550.pdf>

numbers of intersections reduce unmarked mid-block crossings and create street crossings that are typically shorter than those on arterial streets, thus providing more areas for pedestrians to cross the street safely.<sup>61,62</sup> Communities may increase pedestrian connectivity by creating easements and paths connecting cul-de-sacs or across blocks longer than 800-1000 feet.

**Resources:**

Connectivity can be measured many different ways. These include block length, block size, intersection density, street density, the Connected Node Ratio (a measure that factors in the number of cul-de-sacs an area has), and more. See [Measuring Network Connectivity for Bicycling and Walking](#) [PDF]<sup>63</sup> by Jennifer Dill (2004).

The [Ped Shed blog](#)<sup>63</sup> has assembled a great resource on research supporting the connection between walkability and connectivity.

The [Victoria Transport Policy Institute](#)<sup>64</sup> has more information on creating roadway and pathway connectivity.

**WFC Examples:**

The entire [Land Development Code](#)<sup>65</sup> for Gold-level **Corvallis, OR**, serves as a model for any community, especially the [Pedestrian Oriented Design Standards](#) [PDF].<sup>66</sup> The standards ensure connectivity while promoting pedestrian-oriented buildings, amenities, and landscaping that help create a more appealing walking environment.

**Charlotte, NC**, includes a [connectivity ratio objective](#) [PDF]<sup>67</sup> (Objective 2.9) in the City’s Transportation Action Plan.

Silver-level **Bend, OR**, has block length and physical connectivity standards outlined in its [development code](#).<sup>68</sup> Section 3.1 establishes 400 foot block lengths in Bend’s CBD, Convenience Commercial, Mixed Use Riverfront and Professional Office Districts. All residential zones should have 660 foot block lengths, as well as other commercial, industrial and mixed use zones.

**7 Trails**

<b>Do you have a trails plan?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>How many miles of trails (paved/hard surface/natural) currently exist in your community?</b>	Click here to enter text.
<b>How many miles of trails are included in your current planning documents?</b>	Click here to enter text.
<b>Please describe destinations (schools, shopping offices, etc.) that are accessible by the trail in your community:</b> Click here to enter text.	
<b>Please provide a link or attachment of relevant plan, if available:</b> Click here to enter text.	
<b>Is it routine policy to build trails and paths with all new and major re-developments?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No

<sup>61</sup> Ewing, R. (n.d.). *Pedestrian- and transit- friendly design: A primer for smart growth*. Washington, DC: Smart Growth Network. [http://www.epa.gov/piedpage/pdf/ptfd\\_primer.pdf](http://www.epa.gov/piedpage/pdf/ptfd_primer.pdf)

<sup>62</sup> Zegeer, C.V., Sandt, L., Scully, M., Ronkin, M., Cynecki, M., & Lagerwey, P. (2008). *How to develop a pedestrian safety action plan*. (FHWA-SA-05-12). Chapel Hill, NC: Pedestrian Bicycle Information Center. <http://www.pedbikeinfo.org/data/library/details.cfm?id=229>

<sup>63</sup> <http://pedshed.net/?p=71>

<sup>64</sup> <http://www.vtppi.org/tm/tm116.htm>

<sup>65</sup> [http://www.ci.corvallis.or.us/index.php?option=com\\_content&task=view&id=2346#chapters](http://www.ci.corvallis.or.us/index.php?option=com_content&task=view&id=2346#chapters)

<sup>66</sup> <http://archive.corvallisoregon.gov/0/doc/411686/Electronic.aspx>

<sup>67</sup> <http://charmck.org/city/charlotte/Transportation/PlansProjects/Documents/2011%20TAP%20Update%20-%20Policy%20Document%20-%20Final.pdf>

<sup>68</sup> <http://www.codepublishing.com/OR/Bend/?BendDCNT.html>

Is it required through zoning regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are incentives provided to encourage trail construction?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If so, please provide a link or attachment of the policy or ordinance: <a href="#">Click here to enter text.</a>	

**Rationale:**

High quality trail networks (including rail trails and greenways) form the facility network backbone of many walkable communities. Not only do they help complete non-motorized transportation networks, they also attract recreational walkers. Recreational trips make up approximately one-fifth of all walking trips in the United States. Well-designed trails can support economic development and tourism, encourage physical activity, and even raise property values. Access to trails is associated with [higher levels of physical activity](#),<sup>69</sup> particularly for [low-income populations](#).<sup>70</sup> Constructing trails and paths near waterways or along utility corridors is a great way to use land that is unsuitable for development to create pedestrian facilities.

**Resources:**

The American Association of State Highway and Transportation Officials’ [Guide for the Planning, Design, and Operation of Pedestrian Facilities](#)<sup>71</sup> and the Federal Highway Administration’s [Designing Sidewalks and Trails for Access, Part II of II: Best Practices Design Guide](#)<sup>72</sup> provide guidance on planning and designing trails.

See the Rails-to-Trails Conservancy report [Active Transportation for America: A Case for Increased Federal Investment in Bicycling and Walking](#)<sup>73</sup> to learn about the importance of federal funding for pedestrian infrastructure like trails.

The [Rails-to-Trails Conservancy](#)<sup>74</sup> and [American Trails](#)<sup>75</sup> are great resources for more information on trails.

**WFC Examples:**

Bronze-level **Flagstaff, AZ**, combines transportation, recreation, and access to nature on the extensive and popular [Flagstaff Urban Trail System](#)<sup>76</sup> (FUTS, pronounced “foots”). The citywide network of more than 50 miles of nonmotorized, shared-use pathways is supported by the city with dedicated promotion and publicity.

The [Midtown Greenway](#),<sup>77</sup> in Gold-level **Minneapolis, MN**, is a 5.7-mile-long former railroad corridor with bicycling and walking trails that goes through densely populated neighborhoods just south of downtown.

**Cary, NC**, has an extensive 60-mile trail network. The Bronze-level town has recently completed three major trail projects which connect different commercial areas, schools, multiple existing and planned parks, and many residential areas.

Bronze-level **Atlanta, GA**, currently has 100 miles of paved/hard/natural surface trails and 249 miles in their planning documents. Currently, 22 miles of multi-use trails are being constructed encircling the City of Atlanta. Known as the [Atlanta BeltLine](#),<sup>78</sup> it will provide complete access to the city and surrounding suburbs. Other multi-use path networks allow for interior access from the BeltLine, including the Freedom Park Trail, the Trolley Trail, the Whetstone Trail, the Silver Comet Trail, and PATH400.

<sup>69</sup> Brownson, R.C., Baker, E.A., Housemann, R.A., & Bacak, S.J. (2001). Environmental determinants of physical activity in the United States. *American Journal of Public Health, 91*(12). <http://www.ncbi.nlm.nih.gov/pubmed/11726382>

<sup>70</sup> Parks, S.E., Houseman, R.A., & Brownson, R.C. (2003) Differential correlates of physical activity in urban and rural adults of various socioeconomic backgrounds in the United States. *Journal of Epidemiology and Community Health, 57*. <http://www.ncbi.nlm.nih.gov/pubmed/12490645>

<sup>71</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=2067>

<sup>72</sup> [http://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/publications/sidewalk2/index.cfm](http://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/sidewalk2/index.cfm)

<sup>73</sup> <http://www.railstotrails.org/ourWork/advocacy/activeTransportation/makingTheCase/index.html>

<sup>74</sup> <http://www.railstotrails.org/index.html>

<sup>75</sup> <http://www.americantrails.org/>

<sup>76</sup> <http://az-flagstaff3.civicplus.com/index.aspx?nid=1379>

<sup>77</sup> <http://midtowntgreenway.org/>

<sup>78</sup> <http://beltline.org/visit/trails/>

## 8 Public Transportation

Is your community served by public transportation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If so, please list the agencies and whether they are city, regional, or both. Click here to enter text.	

Please provide the following performance indicators and details to indicate how well your community is served by public transportation.

Percent of population living within a quarter mile of a bus stop or ½ mile of a rail station:					Click here to enter text.
Hours of operation for transit service:					
Weekday:	Click here to enter text.	Saturday:	Click here to enter text.	Sunday:	Click here to enter text.

Average off-peak headway on bus routes:	Click here to enter text.
Average peak period bus headway:	Click here to enter text.
Average off-peak headway on train routes:	Click here to enter text.
Average peak period headway on train routes:	Click here to enter text.
Percent of bus stops that are wheelchair accessible:	Click here to enter text.
What route planning and/or trip information is provided for transit passengers (e.g. real-time arrival information, online trip planning, etc.)? Click here to enter text.	
Please describe your transit stop improvement process. Include information on bus stop location guidance and the use of safety and accessibility audits, crash data, and boarding/alighting data to plan system changes and improvements. Click here to enter text.	

### Rationale:

Every transit trip includes walking at some point. In fact, transit riders are [more likely to walk for 30 minutes or more daily than non-transit riders](#)<sup>79</sup> and [transit-oriented areas may encourage walking](#).<sup>80</sup> Therefore, it is important to consider public transportation when planning for pedestrians and vice versa. Cities that are well served by transit can reduce automobile dependency and increase both walking (the number and frequency of pedestrian trips) and walkability (the human-scale land use and design elements that attract pedestrians). [Modifying the number of destinations, public transit points, and access to bike lanes](#)<sup>81</sup> may increase transit use.

### Resources:

See PBIC's page on [improving access to transit](#).<sup>82</sup>

[A Spatial Analysis of Pedestrian Preference](#) [PDF]<sup>83</sup> from Mineta Transportation Institute (2007) describes factors affecting pedestrian route choices to transit.

<sup>79</sup> Besser, L.M. & Dannenberg, A.L. (2005). Walking to public transit: Steps to help meet physical activity recommendations. *American Journal of Preventive Medicine*, 29(4), 273-280. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/16242589>

<sup>80</sup> Institute of Medicine. (2005). Does the built environment influence physical activity? Examining the evidence. Washington, DC: *Institute of Medicine and Transportation Research Board of the National Academies, Report No. 282*. <http://www.trb.org/Main/Blurbs/155343.aspx>

<sup>81</sup> Hoehner, C. M., Brennan Ramirez, L. K., Elliott, M. B., Handy, S. L., & Brownson, R. C. (2005). Perceived and objective environmental measures and physical activity among urban adults. *American Journal of Preventive Medicine*, 28(2S2), 105-116. <http://www.ncbi.nlm.nih.gov/pubmed/15694518>

<sup>82</sup> [http://www.pedbikeinfo.org/planning/transit\\_access.cfm](http://www.pedbikeinfo.org/planning/transit_access.cfm)

<sup>83</sup> <http://transweb.sjsu.edu/mtportal/research/publications/documents/06-06/MTI-06-06.pdf>

The Federal Highway Administration’s 2008 [Pedestrian Safety Guide for Transit Agencies](#) [PDF]<sup>84</sup> provides approaches for identifying and improving pedestrian safety and access issues.

See how [New Jersey](#)<sup>85</sup> and [New York City](#)<sup>86</sup> are improving walking and bicycling conditions for transit users. This [case study](#)<sup>87</sup> describes how Cleveland, OH, prioritized bus shelter improvements.

**WFC Examples:**

**Arlington County, VA**, has 11 MetroRail stops and its [WalkArlington](#)<sup>88</sup> program, along with [Arlington County Commuter Services](#),<sup>89</sup> promotes the many options that residents have for getting around the community.

The [transit connection](#)<sup>90</sup> in Gold-level **Eugene, OR**, is exceptional for a city of 156,000.

Gold-level **San Francisco’s** Transit First Policy (adopted in 1973) gives top priority to public transit investments and adopts street capacity and parking benchmarks to discourage increases in automobile traffic. This policy makes use of bicycling and walking to access transit a central focus of the comprehensive transportation plan.

**9 Parking**

**Which of the following approaches does your community use when planning for parking? Please provide a link or attachment of relevant ordinance or policy and describe when and where these strategies are used.**

<b>Maximum parking standards or absence of minimum parking standards</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
Link to standard: <a href="#">Click here to enter text.</a>	
Description of standards (including when and where these are used): <a href="#">Click here to enter text.</a>	

<b>Parking location requirements (i.e., parking below, beside, or behind a building; allowing on-street parking to meet minimum parking requirements)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
Link to location requirements: <a href="#">Click here to enter text.</a>	
Description of requirements (including when and where these are used): <a href="#">Click here to enter text.</a>	

<b>Surface lot size and design requirements, including pedestrian and vehicle separation, locating lots to the side or behind businesses, alternative use of parking lot, landscaping, etc.</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
Link to size/design requirements: <a href="#">Click here to enter text.</a>	
Description of requirements (including when and where these are used): <a href="#">Click here to enter text.</a>	

<b>Shared parking allowances</b> <i>Definition: Shared parking lots can reduce the total number of parking spaces needed in a particular area by coordinating peak parking demand times between different buildings and</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
--	--

<sup>84</sup> [http://safety.fhwa.dot.gov/ped\\_bike/ped\\_transit/ped\\_transguide/transit\\_guide.pdf](http://safety.fhwa.dot.gov/ped_bike/ped_transit/ped_transguide/transit_guide.pdf)  
<sup>85</sup> <http://www.state.nj.us/transportation/business/localaid/documents/ssstHandbook2.pdf>  
<sup>86</sup> <http://www.nyc.gov/html/dot/html/sidewalks/safertstransit.shtml>  
<sup>87</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=2925>  
<sup>88</sup> <http://www.walkarlington.com/>  
<sup>89</sup> <http://www.commuterpage.com/accs/index.htm>  
<sup>90</sup> <http://www.ltd.org/>

<i>different uses. For instance, an office building might be able to share a parking lot with a restaurant that operates only in the evenings, as the former would use the lot during the day and the latter would use it at night.</i>	
<b>Link to allowances:</b> <a href="#">Click here to enter text.</a>	
<b>Description of allowances (including when and where these are used):</b> <a href="#">Click here to enter text.</a>	

<b>Priced public parking</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Link to prices:</b> <a href="#">Click here to enter text.</a>	
<b>Description of priced parking (including when and where these are used):</b> <a href="#">Click here to enter text.</a>	

<b>Parking cashout incentives</b> <i>Definition: Parking cashout is a financial incentive in which employees who do not drive and park at work receive a subsidy that approximates the cost that employers bear to provide free parking to employees.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Link to incentives:</b> <a href="#">Click here to enter text.</a>	
<b>Description of incentives (including when and where these are used):</b> <a href="#">Click here to enter text.</a>	

<b>Remote parking and/or park and ride</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Link to remote parking:</b> <a href="#">Click here to enter text.</a>	
<b>Description of remote parking (including when and where these are used):</b> <a href="#">Click here to enter text.</a>	

<b>Other</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Link to other approach:</b> <a href="#">Click here to enter text.</a>	
<b>Description of other approach (including when and where these are used):</b> <a href="#">Click here to enter text.</a>	

**Rationale:**

The design, price, and amount of parking in a community affect an area’s walkability. Surface parking lots reduce density, create conflict points between pedestrians and vehicles at driveways, and are visually unappealing. There are indications that minimum parking requirements result in surplus parking, increased automobile use, and decreased density.<sup>91</sup>

Careful attention to the [quality of parking provided, rather than the quantity](#),<sup>92</sup> can help create walk-friendly environments.

**Resources:**

Check out [People, Parking, and Cities](#) [PDF]<sup>93</sup> by scholars at UCLA to read about why density increases should be accompanied by changes in parking policy.

<sup>91</sup> <http://shoup.bol.ucla.edu/>

<sup>92</sup> Mukhija, V. & Shoup, D. (2006). Quality versus quantity in off-street parking requirements. *Journal of the American Planning Association*, 72(3). <http://shoup.bol.ucla.edu/QuantityVersusQualityInOff-StreetParkingRequirements.pdf>

<sup>93</sup> <http://shoup.bol.ucla.edu/People,Parking,Cities.pdf>

See the Environmental Protection Agency’s [Parking Spaces/Community Places: Finding the Balance through Smart Growth Solutions](#) [PDF]<sup>94</sup> report for innovative parking solutions.

Todd Litman has developed a number of helpful resources and articles. His article, [Parking Management: Strategies, Evaluation, and Planning](#) [PDF]<sup>95</sup> gives an excellent overview of parking strategies, policies, and costs.

The Institute for Transportation and Development Policy (ITDP) has a guide called [U.S. Parking Policies: An Overview of Management Strategies](#) [PDF]<sup>96</sup> that includes best practices for on-street and off-street parking, in addition to case studies from six cities.

**WFC Examples:**

Silver-level **Santa Monica, CA**, has a [Transportation Management](#)<sup>97</sup> program that requires some employers to offer a parking cashout program.

Gold level Denver, CO, has an excellent parking management strategy that is outlined in the [Strategic Parking Plan](#)<sup>98</sup> and implemented through the city’s new form-based zoning code. There are no parking minimums in Denver’s Central Business District, and parking ratios are based on activity patterns.

Bronze level Bloomington, IN, has language on [parking standards](#)<sup>99</sup> in their recently-adopted UDO.

[“Surrender Your Permit”](#)<sup>100</sup> incentives in Gold-level **Hoboken, NJ**, encourage car-free living. Residents who turn in their parking permits to the Hoboken Parking Utility can receive up to \$500 in rewards.

The **San Francisco** Metropolitan Transportation Commission (MTC) published a 2007 report on [parking best practices](#).<sup>101</sup> The city has also implemented [SFPark](#),<sup>102</sup> a program that uses demand-pricing for public parking.

Silver-level **Alexandria, VA**, has a helpful [fact sheet](#) [PDF]<sup>103</sup> on shared parking.

**10 Infill/Density**

<b>Approximately what percentage of development in the last five years has been infill?</b>	Enter %
<b>How many <a href="#">LEED-ND</a><sup>104</sup> projects have been developed (or are pre-qualified) in your community?</b>	Click here to enter text.

**What measures does your community use to encourage dense, mixed-use development? (check all that apply)**

<b>Secondary or accessory dwelling units are permitted</b> <i>Definition: These units are self-contained apartments on an owner occupied single-family lots.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Link to measure:</b> Click here to enter text.	
<b>Description of measure (including where it is permitted):</b> Click here to enter text.	

<sup>94</sup> <https://www.epa.gov/smartgrowth/parking-spacescommunity-places>

<sup>95</sup> [http://www.vtpi.org/park\\_man.pdf](http://www.vtpi.org/park_man.pdf)

<sup>96</sup> [http://www.itdp.org/documents/ITDP\\_US\\_Parking\\_Report.pdf](http://www.itdp.org/documents/ITDP_US_Parking_Report.pdf)

<sup>97</sup> <http://www.smgov.net/Departments/PCD/About-Us/Traffic-Management/>

<sup>98</sup> [http://www.denvergov.org/Portals/681/documents/The\\_Strategic\\_Parking\\_Plan\\_Final.pdf#page=16](http://www.denvergov.org/Portals/681/documents/The_Strategic_Parking_Plan_Final.pdf#page=16)

<sup>99</sup> <https://bloomington.in.gov/media/media/application/pdf/90.pdf>

<sup>100</sup> <http://www.hobokennj.org/departments/transportation-parking/surrenderyourpermit/>

<sup>101</sup> <http://mtc.ca.gov/sites/default/files/Toolbox-Handbook.pdf>

<sup>102</sup> <http://sfpark.org/>

<sup>103</sup> <http://alexandriava.gov/uploadedFiles/planning/info/SharedParkingFactSheet.pdf>

<sup>104</sup> <http://www.usgbc.org/leed/nd>

<b>Retail/commercial uses are required on the ground floor of residential buildings in mixed use corridors or districts</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Link to measure:</b> <a href="#">Click here to enter text.</a>	
<b>Description of measure (including where it is permitted):</b> <a href="#">Click here to enter text.</a>	

<b>Density bonuses to developers are provided for providing amenities that enhance walkability and livability</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<i>Definition: Density bonuses are used by local governments to allow a developer to build at a higher density than zoning permits in exchange for providing affordable residences or walk-friendly amenities.</i>	
<b>Link to measure:</b> <a href="#">Click here to enter text.</a>	
<b>Description of measure (including where it is permitted):</b> <a href="#">Click here to enter text.</a>	

<b>Form-based or design-based codes are used</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<i>Definition: These codes are an alternative to conventional zoning that can be used to ensure a walk friendly environment by regulating the form, scale and massing of buildings rather than the use. They are typically presented with both diagrams and words.</i>	
<b>Link to measure:</b> <a href="#">Click here to enter text.</a>	
<b>Description of measure (including where it is permitted):</b> <a href="#">Click here to enter text.</a>	

<b>Neighborhood school siting policies</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Link to measure:</b> <a href="#">Click here to enter text.</a>	
<b>Description of measure (including where it is permitted):</b> <a href="#">Click here to enter text.</a>	

<b>What other incentives are provided for infill developments (please describe):</b> <a href="#">Click here to enter text.</a>
<b>Please describe the planning efforts in your community to preserve and strengthen your urban structure. Examples could include downtown or historic area revitalization efforts or infill and intensification efforts in centers, nodes, districts, and along corridors.</b> <a href="#">Click here to enter text.</a>

**Rationale:**

Dense development is associated with [higher levels of walking and transit use and reduced automobile dependency](#) [PDF].<sup>105</sup> The [positive relationship between density and walking](#)<sup>106</sup> might be even more significant in less urbanized areas. Compact, mixed-use development is fundamental to making communities walkable because more origins and destinations will be within walking distance of one another.<sup>107,108</sup>

<sup>105</sup> Ewing, R. (n.d.). *Pedestrian- and transit- friendly design: A primer for smart growth*. Washington, DC: Smart Growth Network. [https://archive.epa.gov/greenbuilding/web/pdf/ptfd\\_primer.pdf](https://archive.epa.gov/greenbuilding/web/pdf/ptfd_primer.pdf)

<sup>106</sup> Hou, N., Popkin, B. M., Jacobs, D. R., Jr., Song, Y., Guilkey, D., Lewis, C. E., et al. (2010). Longitudinal associations between neighborhood-level street network with walking, bicycling, and jogging: the CARDIA study. *Health & Place*, 16(6), 1206-1215. <http://www.ncbi.nlm.nih.gov/pubmed/20801072>

<sup>107</sup> Leinberger, C. B. (2007). Back to the future: The need for patient equity in real estate development and finance. *The Brookings Institution Metropolitan Policy Program Research Brief*. Washington, DC: The Brookings Institution. [http://www3.brookings.edu/metro/pubs/200701226\\_patientequity.pdf](http://www3.brookings.edu/metro/pubs/200701226_patientequity.pdf)

<sup>108</sup> Saelens, B.E. & Handy, S.L. (2008). Built environment correlates of walking: A review. *Medicine & Science in Sports & Exercise*, 40(7S), S550-S556. <http://www.ncbi.nlm.nih.gov/pubmed/18562973>

Proximity to schools and retail, commercial, and municipal uses can encourage walking. Additionally, large numbers of pedestrians tend to attract more walkers because they indicate the vitality of an area and can create a secure walking environment with more eyes on the street. High densities, walking, and transit use reinforce one another: higher residential and employment densities mean that more riders will live or work within a quarter mile of a transit stop; high ridership levels can improve transit service; and transit riders typically start their trip on foot, so high ridership levels likely indicate high pedestrian levels.

**Resources:**

[Creating Great Neighborhoods: Density in Your Community](#) [PDF],<sup>109</sup> a report by the Local Governments Association and the U.S. Environmental Protection Agency, describes the many benefits of density.

ChangeLab Solutions’ [Pedestrian Friendly Code Directory](#)<sup>110</sup> includes sample code language that supports mixed land uses, medium to high densities, and pedestrian supportive commercial uses.

The EPA’s 2003 [Travel and Environmental Implications of School Siting](#) [PDF]<sup>111</sup> report describes the effects of school siting policies. See also [EPA School Siting Guidelines](#).<sup>112</sup>

[“Growing Cooler: The Evidence on Urban Development and Climate Change”](#)<sup>113</sup> by Reid Ewing and others (2007) reviews the relationship between urban development and climate change, and recommends high-density, mixed use urban development as a strategy for mitigating the effects of climate change.

**WFC Examples:**

The [Master Transportation Plan](#) [PDF]<sup>114</sup> for **Arlington County, VA**, acknowledges the relationship between transportation and land use and seeks to focus high-density development around rail stations and corridors with extensive transit service.

Silver-Bend, OR, has an [accessory building ordinance \(see sections 2.1 and 2.7\)](#).<sup>115</sup>

Silver-level **Asheville, NC**, has a density bonus program for sustainability and affordability within its Unified Development Ordinance. [Criteria for density bonuses](#) include the provision of site amenities, proximity to transit, and short distance to high frequency transit line (see section (c) 69). The city also has good parking policies downtown and allows for accessory dwelling units in all residential zones.

**11 Design**

**Please select and briefly describe any urban design features or pedestrian amenities that your community uses or requires to create a comfortable and attractive walking environment.**

<input type="checkbox"/> <b>Lighting:</b>	Click here to enter text.
<input type="checkbox"/> <b>Trees and plantings:</b>	Click here to enter text.
<input type="checkbox"/> <b>Street furniture:</b>	Click here to enter text.
<input type="checkbox"/> <b>Community identifiers (e.g. gateways, banners, public art):</b>	Click here to enter text.
<input type="checkbox"/> <b>Other features and amenities (e.g. façade design requirements, public restrooms, pavement design):</b>	Click here to enter text.

<sup>109</sup> <https://www.epa.gov/smartgrowth/creating-great-neighborhoods-density-your-community>

<sup>110</sup> <http://www.changelabsolutions.org/publications/pfc-directory>

<sup>111</sup> [https://www.epa.gov/sites/production/files/2014-04/documents/school\\_travel.pdf](https://www.epa.gov/sites/production/files/2014-04/documents/school_travel.pdf)

<sup>112</sup> <https://www.epa.gov/schools/school-siting-guidelines>

<sup>113</sup> <http://www.smartgrowthamerica.org/growing-cooler>

<sup>114</sup> <http://www.arlingtonva.us/departments/EnvironmentalServices/dot/planning/mplan/mtp/images/file59216.pdf>

<sup>115</sup> <http://www.codepublishing.com/OR/Bend/?BendDCNT.html>

Please provide a link or attachment of the ordinance or policy that addresses these features:

[Click here to enter text.](#)

### Rationale:

While having pedestrian infrastructure in place is essential in making places safe for walking, pedestrian amenities and urban design elements are also important for making walking comfortable and enjoyable. A variety of elements can help create a walk friendly environment; though they may not amount to much in isolation, the combination of pedestrian friendly urban design features may increase walking in a particular area. In Bogotá, Colombia, the [combination of wider and higher quality sidewalks, along with amenities](#) such as benches and garbage cans, was found to be positively and significantly related to the observed pedestrian count.<sup>116</sup> The aesthetics of pedestrian amenities are positively correlated to walking, [especially for recreational walking](#) [PDF].<sup>117</sup>

### Resources:

The idea that design features and pedestrian amenities can affect the walking experience, while quite intuitive, is difficult to show empirically. [Ewing, Clemente, and Handy \(2005\)](#)<sup>118</sup> create a framework for measuring the effect of urban design features on walkability.

The American Institute of Architects' document, [Livability 101](#) [PDF],<sup>119</sup> describes the features that enhance pedestrian environments and, consequently, make communities more livable. Likewise, the National Center for Bicycling and Walking's guide, [Increasing Physical Activity through Community Design](#), [PDF]<sup>120</sup> provides suggestions for creating places for people to walk and bike.

### WFC Examples:

Check out **Seattle's** online [Right-of-Way Improvement Manual](#).<sup>121</sup> The Manual summarizes the Land Use Code requirements for street and alley improvements and presents the specific criteria for design and installation.

Silver level Bend, OR, prominently displays public art in the center of its 30+ roundabout intersections, utilizes light pole banners which vary by season throughout downtown, and has "BEND" gateway landscaping at both the north and south entrances into town.

**San Francisco's** "[Pavement to Parks](#)"<sup>122</sup> program reclaims underutilized pavement to become public space. Residents and businesses can apply for a permit to turn the space in front of their property into a "parklet," which is often the length of one or two parking spaces and includes street furniture. Plaza projects are initiated by the City, which closes off certain intersections or parts of intersections to create a public space.

Gold-level **Chicago's** [Streetscape Design Guidelines](#) [PDF]<sup>123</sup> address issues of safety and accessibility on City streets, assist in making informed decisions about the design of City streets, and encourage the commercial areas to be places for working, living, and social activities.

WFCs including [Seattle](#),<sup>124</sup> [Eugene](#),<sup>125</sup> and [Austin](#)<sup>126</sup> have mechanisms for including public art in transportation projects.

<sup>116</sup> Rodríguez, D. A., Brisson, E. M., & Estupiñán, N. (2009). The relationship between segment-level built environment attributes and pedestrian activity around Bogotá's BRT stations. *Transportation Research Part D*, 14, 470-478.

<sup>117</sup> Owen, N., Humpel, N., Leslie, E. Bauman, A., & Sallis, J. F. (2004). Understanding environmental influences on walking: review and research agenda. *American Journal of Preventive Medicine*, 27(1), 67-76.

<sup>118</sup> <http://smartgrowth.umd.edu/urbandesignqualities.html>

<sup>119</sup> <http://www.aia.org/aiaucmp/groups/aia/documents/pdf/aia077944.pdf>

<sup>120</sup> [http://www.bikewalk.org/pdfs/2010/IPA\\_full.pdf](http://www.bikewalk.org/pdfs/2010/IPA_full.pdf)

<sup>121</sup> <http://www.seattle.gov/transportation/rowmanual/manual/>

<sup>122</sup> <http://pavementtoparks.sfplanning.org/>

<sup>123</sup> [http://www.cityofchicago.org/content/dam/city/depts/cdot/Streetscape\\_Design\\_Guidelines.pdf](http://www.cityofchicago.org/content/dam/city/depts/cdot/Streetscape_Design_Guidelines.pdf)

<sup>124</sup> <http://www.seattle.gov/transportation/artplan.htm>

<sup>125</sup> <http://www.eugene-or.gov/index.aspx?NID=1102>

<sup>126</sup> <http://www.austintexas.gov/department/art-public-places>

**12 Other planning policies**

**Please briefly describe any other planning policies related to promoting or enhancing walking in your community.**

[Click here to enter text.](#)

# EDUCATION & ENCOURAGEMENT

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Education and encouragement are primary components in creating a successful walk friendly community. This section seeks information about the programs, policies and strategies your community uses to inform, inspire, motivate, or reward walkers and other users of the public right-of-way. It also asks the question, “Do your efforts result in a safe walking environment?” Effective pedestrian safety education begins at an early age, is age-specific, and continues through the years across all modes. Motorists who are educated about pedestrian safety contribute to a safer, more pleasant walking environment for pedestrians; this environment enables and encourages more people to walk.

Encouragement programs can be fun and inclusive in seeking to establish good habits or change unhealthy or unsafe habits. The education and encouragement strategies listed below are common to many walkable communities. If your community uses other strategies to educate the public and encourage walking, please describe them as well.

---

## 1 Safe Routes to School

**Please describe any Safe Routes to School (SRTS) programming being implemented in your community in the space provided below.**

**Check any of the following activities that are part of your SRTS programs and include information about the nature, scope, and results of these activities (as well as any others not listed below) in your description.**

<b>Walk to School Day/Week</b> <i>Definition: Walk to School Day is an international event that takes place annually in October. Schools from all over the country plan special activities to encourage students to walk to school. This special event can be a great way to start a Safe Routes to School program.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Description:</b> <a href="#">Click here to enter text.</a>	

<b>Walking Wednesdays or other walking events</b> <i>Definition: Some schools and communities promote walking to school by having regular Walking Wednesday events in which parents, teachers, and students may meet up near the school campus and walk to school together.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Description:</b> <a href="#">Click here to enter text.</a>	

<b>Walkability audits or SRTS maps</b> <i>Definition: By auditing and assessing walking routes and creating maps indicating the safest routes to school, communities can help educate students and families about the best routes to take.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Description:</b> <a href="#">Click here to enter text.</a>	

<b>Walking School Bus</b> <i>Definition: From <a href="#">National Center for Safe Routes to School</a>: A group of children that walk or bicycle to school together accompanied by one or more adults.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Description:</b> Click here to enter text.	

<b>Student safety patrol</b> <i>Definition: Student safety patrols enhance enforcement of drop-off and pick-up procedures at school by increasing safety for students and traffic flow efficiency for parents. Such efforts allow students to participate in promoting traffic safety where they learn skills they can use in their everyday lives.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Description:</b> Click here to enter text.	

<b>Tracking system to count the number of children walking to school</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Description:</b> Click here to enter text.	

<b>Other (please describe)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Description:</b> Click here to enter text.	

**Please estimate the number of schools in your communities that participate in the following:**

<b>Ongoing SRTS program:</b>	Click here to enter text.
<b>Special walk to school events only:</b>	Click here to enter text.
<b>No walk to school or SRTS activities:</b>	Click here to enter text.
<b>Total number of elementary and middle schools in your community:</b>	Click here to enter text.

**Please provide the following information for the Safe Routes to School contact person in your community:**

<b>Contact Person and Title:</b>	Click here to enter text.
<b>Contact Person Department:</b>	Click here to enter text.
<b>How many hours are spent per year in this capacity?</b>	Click here to enter text.

<b>Please describe your most recent Safe Routes to School grant:</b> Click here to enter text.
---

**Rationale:**

Federal transportation law includes a Safe Routes to School program. Program goals include more children walking and bicycling to school; encouragement of safe, healthy, active lifestyles; improved safety; reduced traffic, fuel consumption, and air pollution; and inclusion of children with disabilities in the program. The SRTS program exists because of policy concerns about fewer children are walking and bicycling to school today, rising rates of childhood obesity, the attendant long-term health risks, and the impact on the nation's health care system. SRTS programs typically employ a multi-faceted approach to improving walking and bicycling to school and include education and encouragement activities like those listed above.

**Resources:**

The [National Center for Safe Routes to School](#)<sup>127</sup> offers a clearinghouse of SRTS information. The Center provides resources for specific SRTS activities, such as [Walk to School Day](#),<sup>128</sup> [Walking School Bus](#) [PDF]<sup>129</sup> programs, [Walkability Checklists](#) [PDF],<sup>130</sup> [SRTS maps](#),<sup>131</sup> and [student travel tally sheets](#)<sup>132</sup> for tracking the number of students walking to school. The Center also provides [case studies](#)<sup>133</sup> on SRTS programs.

The [SRTS National Partnership](#)<sup>134</sup> has resources for individuals, schools, and advocacy groups to help build support for and capacity of SRTS programs.

In addition, each state department of transportation has a full-time SRTS coordinator who is available to provide information and funding to local communities. Such information may be provided in the form of SRTS-specific pages on the state DOT’s website, a toolkit, educational sessions, and grant workshops.

**WFC Examples:**

**Chicago’s** [Safe Routes Ambassadors](#)<sup>135</sup> are a pedestrian and bicycles safety outreach team that teach thousands of kids about the benefits of walking and biking through classroom and outdoor exercises and help implement Safe Routes to School activities. In 2009, Safe Routes Ambassadors began a teen safe driving campaign through driver education programs on the laws related to pedestrian safety.

Bronze-level **Austin, TX**, runs a SRTS program at 24 elementary and middle schools through its Public Works department. One unique element of Austin’s SRTS program is that they educate motorists on how to drive safely around schools. Austin SRTS staff developed a training called "Driving Safely in School Zones" and conducted train-the-trainer sessions for Austin Police Department officers who have conducted the training with several SRTS schools.

Half of the 41 elementary and middle schools in Bronze-level **Fort Collins, CO**, have ongoing SRTS programs. Fort Collins has a proactive data tracking program, which includes mode-of-transportation tallies twice annually at schools receiving SRTS instruction during PE class. Approximately 40 percent of local schools have adopted a version of Walkin’ and Wheelin’ Wednesdays and more than 70 percent of schools reported at least one "fun run" or walk-a-thon type event during the school year.

**2 Education and Training**

**Please describe any education and training programs directed at your staff that are related to pedestrian awareness, safety, or design in your municipality. Please include in this description the nature, frequency, scope, number of attendees, source materials, and results of these programs.**

<b>Engineering:</b> Click here to enter text.
<b>Planning:</b> Click here to enter text.
<b>Law enforcement:</b> Click here to enter text.
<b>School staff:</b>

<sup>127</sup> [www.saferoutesinfo.org](http://www.saferoutesinfo.org)

<sup>128</sup> <http://walkbiketoschool.org/>

<sup>129</sup> [http://www.saferoutesinfo.org/guide/walking\\_school\\_bus/pdf/wsb\\_guide.pdf](http://www.saferoutesinfo.org/guide/walking_school_bus/pdf/wsb_guide.pdf)

<sup>130</sup> <http://www.saferoutesinfo.org/program-tools/education-walkability-checklist>

<sup>131</sup> [http://guide.saferoutesinfo.org/engineering/school\\_route\\_maps\\_and\\_the\\_tools\\_to\\_create\\_them.cfm](http://guide.saferoutesinfo.org/engineering/school_route_maps_and_the_tools_to_create_them.cfm)

<sup>132</sup> <http://www.saferoutesinfo.org/program-tools/evaluation-student-class-travel-tally>

<sup>133</sup> [http://guide.saferoutesinfo.org/case\\_studies/](http://guide.saferoutesinfo.org/case_studies/)

<sup>134</sup> <http://www.saferoutespartnership.org/>

<sup>135</sup> [http://www.cityofchicago.org/city/en/depts/cdot/provdrs/ped/svcs/safe\\_routes\\_ambassadors.html](http://www.cityofchicago.org/city/en/depts/cdot/provdrs/ped/svcs/safe_routes_ambassadors.html)

Click here to enter text.

**Public officials:**

Click here to enter text.

**Other (e.g. public health professionals):**

Click here to enter text.

**Rationale:**

Ongoing education for professional staff underscores the priority a community places upon the importance of walking, walkability, and pedestrian safety. By educating public officials communities can help ensure that ordinances and policies that support walking are actually implemented. Education and training activities offer an opportunity to refresh current practices and learn new strategies. Such training can reduce or eliminate potential miscommunication between different professions such as judges and police officers.

**Resources:**

The Pedestrian and Bicycle Information Center offers [webinars](#)<sup>136</sup> and [training courses](#)<sup>137</sup> on pedestrian safety, many of which are aimed at engineers, planners, traffic safety and enforcement professionals, public health and injury prevention professionals, and decision-makers.

**WFC Examples:**

**San Francisco** provides multiple training opportunities for staff and law enforcement on pedestrian safety. Principals, teachers, and school staff participate in an annual professional development day about the Safe Routes to School program and how to incorporate the program’s goals into education lessons. Staff members at the Municipal Transportation Agency and the SF Planning Department are provided numerous opportunities through trainings, webinars, and conferences to learn about pedestrian safety and apply the information to the city.

The **New Orleans** Regional Planning Commissions (NORPC) offers a three-day workshop for planners and engineers, [Designing Streets for Pedestrians and Bicyclists](#),<sup>138</sup> in the Bronze-level city.

In Bronze-level **Lee’s Summit, MO**, city staff and law enforcement have annual driver’s education training that includes pedestrian safety awareness. Law enforcement staff also has additional required training for pedestrian and driver safety beyond the city’s annual requirement of employment.

The Bronze-level **Forest Park, IL**, the Police Department ensures that all officers who are engaged in traffic safety enforcement receive introductory training on bicycle and pedestrian safety, followed by semi-annual refresher sessions. Information is provided in live sessions, online, and by video. Trainings include information about Safe Routes to School.

**3 Campaigns**

**Please check and briefly describe any education or encouragement campaigns that are implemented in your community regarding the following topics. Include information about the target audience, techniques used (e.g., posters, workshops, etc.), frequency, scope, and results of the programs. Please mention what measures your community has taken to make sure that education and encouragement campaigns are inclusive of all populations. Also mention your community partnerships (such as Public Health & Planning partnerships) that collaborate on these efforts. Provide any relevant links and attachments to help illustrate these descriptions, if available.**

<sup>136</sup> <http://www.pedbikeinfo.org/training/webinars.cfm>

<sup>137</sup> <http://www.pedbikeinfo.org/training/gettraining.cfm>

<sup>138</sup> <http://www.norpc.org/assets/pdf-documents/Forms/Agenda%20New%20Orleans%20ped-bike%20design.attendee%20version%20final.pdf>

<b>Public service announcements to encourage safe walking and driving</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Link to relevant material:</b> Click here to enter text.	
<b>Description:</b> Click here to enter text.	

  

<b>Public health campaigns related to walking</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Link to relevant material:</b> Click here to enter text.	
<b>Description:</b> Click here to enter text.	

  

<b>Walk to work events</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Link to relevant material:</b> Click here to enter text.	
<b>Description:</b> Click here to enter text.	

  

<b>Other (please describe):</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Link to relevant material:</b> Click here to enter text.	
<b>Description:</b> Click here to enter text.	

**Rationale:**

Education and encouragement programs can communicate the benefits of walking, as well as the rights and responsibilities of pedestrians and motorists, to school children, residents and visitors. Walkable communities can be cultivated by educating all roadway users to interact safely. There are major differences in the walking abilities, behavioral patterns, and learning capacities of different groups of pedestrians and other road users. Because of this, educational programs succeed when tailored to specific audiences and to the behaviors they seek to modify. For example, children have different physical and psychological abilities than adult pedestrians, a younger or new driver may exhibit different behaviors and driving skills than an older driver, and college-age pedestrians may respond to different educational outlets that might not be as effective in reaching other groups.

**Resources:**

PBIC has created a guide on [how to educate drivers and pedestrians](#).<sup>139</sup>

See the [National Highway Traffic Safety Administration \(NHTSA\) guide](#)<sup>140</sup> on educating children on safe street-crossing behaviors.

San Francisco’s [Transportation Demand Management Partnership Project](#) is an example of a campaign centered around reduced drive-alone trips.<sup>141</sup>

The Centers for Disease Control and Prevention ran a social marketing campaign called [VERB](#)<sup>142</sup> that aimed to increase physical activity among preteens.

**WFC Examples:**

<sup>139</sup> <http://www.pedbikeinfo.org/programs/education.cfm>

<sup>140</sup> <http://www.nhtsa.gov/DOT/NHTSA/Traffic%20Injury%20Control/Articles/Associated%20Files/811190.pdf>

<sup>141</sup> <http://www.sfcta.org/completed-studies/transportation-demand-management-partnership-project>

<sup>142</sup> <http://www.cdc.gov/YouthCampaign/>

[Santa Barbara Car Free](#),<sup>143</sup> a project of the Santa Barbara County Air Pollution Control District, promotes the Gold-level city as a walkable vacation destination.

[BikeWalkMove](#),<sup>144</sup> in **Minneapolis, MN**, has an ambassador program to reach underserved groups.

[The Car-Free Diet](#),<sup>145</sup> in **Arlington, VA**, targets commuters and “car-free skeptics.” [WalkArlington](#)<sup>146</sup> conducts an impressive amount of outreach and education about walking in the community and is involved in everything from Safe Routes to School to walking clubs for seniors to programs for employers.

In **Flagstaff, AZ**, [Flagstaff Walks!](#)<sup>147</sup> is a weeklong event organized by the Pedestrian Advisory Committee and dedicated to celebrating Flagstaff's walkable nature and raising awareness of walkability issues. Activities include Safe Routes to School Workshops and Walkability Audits, guided walks, and promotional events, all culminating in International Walk to School Day.

[Healthy Portsmouth](#),<sup>148</sup> in Bronze-level Portsmouth, VA, is a city-wide health and wellness initiative that promotes walking as a part of daily activity and recreation. An annual Community Action Plan sets goals to achieve set health targets and organizes community leaders to help achieve positive results surrounding walking and biking.

#### 4 Tours, Guides & Maps

Please check and briefly describe any walking tours, guides, or maps that are available (online or printed) in your community. If available, please provide a link, attachment, or pictures of wayfinding devices and/or plans, maps, or brochures for these walking tours.

<b>Walking maps (e.g., neighborhoods maps, school route maps, city-wide maps, trails and greenways, etc.)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Link to relevant material:</b> <a href="#">Click here to enter text.</a>	
<b>Description:</b> <a href="#">Click here to enter text.</a>	
<b>Wayfinding and route signs for pedestrians</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Link to relevant material:</b> <a href="#">Click here to enter text.</a>	
<b>Description:</b> <a href="#">Click here to enter text.</a>	

#### Rationale:

Communities that provide information about places to walk may enjoy higher rates of walking. Walking maps and tours are especially useful to tourists, residents who are new to your community or residents who do not yet walk frequently as they can highlight important destinations and indicate which routes are best for pedestrians. Signs, maps, and tours indicate a community's support for walking culture and are a good way for municipalities to encourage and facilitate walking for many different purposes, including recreational, utilitarian, and fitness walking trips.

#### Resources:

<sup>143</sup> <http://www.santabarbaracarfree.org/>

<sup>144</sup> <http://www.bikewalktwincities.org/bike-walk-move>

<sup>145</sup> <http://www.carfreediet.com>

<sup>146</sup> <http://www.walkarlington.com>

<sup>147</sup> <http://www.flagstaff.az.gov/index.aspx?NID=1894>

<sup>148</sup> <http://www.healthyportsmouthva.org/action/walk>

See Eat Smart, Move More has a short [guide to creating walking maps](#) [PDF].<sup>149</sup>

### WFC Examples:

Silver-level **Philadelphia's** [Walk!Philadelphia](#) [PDF]<sup>150</sup> is North America's largest pedestrian sign system. The system places disk maps midblock on both sides of the street and directional signs for nearby destinations on each corner. There are over 200 disk maps and 400 directional signs covering a 400 square block area.

**Wilsonville, OR**, created a series of [six walking maps](#)<sup>151</sup> and a [bike/walk map](#)<sup>152</sup> to highlight local features.

See the variety of guided walking tours and walking maps in [San Francisco](#),<sup>153</sup> and [Asheville](#).<sup>154</sup>

## 5 Open Streets

**Please briefly describe any ciclovia/Sunday Parkways/Open Streets or similar events in your community that are specifically intended to encourage walking. Include information about the target audience, nature, frequency, scope, and results of these events. Provide any relevant links and attachments, if available.**

[Click here to enter text.](#)

### Rationale:

Walking-focused events or activities offer opportunity, incentive, and support for individual behavioral change. Special events and ongoing activities, such as Open Streets or Sunday Parkways can make walking exciting, fun, and social and can create a critical mass of walkers that can attract more walkers.

### Resources:

Open Streets or Sunday Parkways initiatives involve closing the street to automobile traffic and creating a welcoming environment for all types of walkers and bicyclists. The [Open Streets Project](#)<sup>155</sup> is a great resource for information on running an Open Streets program.

### WFC Examples:

The following WFCs have Open Streets or Sunday Parkways:

- Open Streets programs with supporting events: [Chicago](#), [San Francisco](#), [Minneapolis](#), [Seattle](#), [Eugene](#), and [Wilsonville](#)
- Sunday streets programs with street closures, but no supporting events: [Philadelphia](#), [Hoboken](#), and [Ann Arbor](#)

## 6 Other Education or Encouragement Programs

**Please briefly describe any other education or encouragement programs affecting walking in your community.**

[Click here to enter text.](#)

<sup>149</sup> [http://www.eatsmartmovemorenc.com/WalkingMapGuide/Texts/WalkingMapGuide\\_lowrez.pdf](http://www.eatsmartmovemorenc.com/WalkingMapGuide/Texts/WalkingMapGuide_lowrez.pdf)

<sup>150</sup> [http://www.centercityphila.org/docs/walkphila\\_infosheet.pdf](http://www.centercityphila.org/docs/walkphila_infosheet.pdf)

<sup>151</sup> <http://www.wilsonvilleparksandrec.com/221/Maps>

<sup>152</sup> <http://www.wilsonvilleparksandrec.com/DocumentCenter/View/484>

<sup>153</sup> <http://www.sfcityguides.org/>

<sup>154</sup> <http://www.ashevillegreenworks.org/uploads/1/1/3/3/11332507/qfwalkingguide.pdf>

<sup>155</sup> <http://openstreetsproject.org/>

# ENGINEERING

Designing, engineering, operating, and maintaining quality roadways and pedestrian facilities is a critical element in producing a Walk Friendly Community. Designers and engineers have a diverse array of design elements and ever-developing technologies at their disposal that provide a safer, inviting, and more accessible street for pedestrians. These benefits aren't limited to pedestrians. By accommodating pedestrians in all roadway designs, roads become safer for all users. Therefore, it should be essential that pedestrian engineering and design tools are used throughout your community, including sidewalk accommodations and standards, crossings and intersections, traffic calming, trail design, and newer, innovative treatments.

## 1 Sidewalk Design

Which of the following standards, if any, are included in your municipality's sidewalk design specifications? Please provide a link or attachment of the municipality's sidewalk design standard specifications.

<b>Sidewalks at least 5' wide in residential areas, 10'-30' in commercial zones</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Required buffer zone between sidewalk and street</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Level and continuous sidewalks at driveways so that driveways do not look like roadways</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Sidewalk design link:</b> <a href="#">Click here to enter text.</a>	

### Rationale:

Both the Federal Highway Administration (FHWA) and the Institute of Transportation Engineers (ITE) recommend a minimum width of five feet for a sidewalk or walkway, which allows two people to pass comfortably or to walk side-by-side. Wider sidewalks should be installed near schools, at transit stops, in downtown areas, or anywhere with high concentrations of pedestrians. Sidewalks should be continuous along both sides of a street and sidewalks should be fully accessible to all pedestrians, including those in wheelchairs.

A buffer zone of four to eight feet should be provided to separate pedestrians from the street. Buffer zones also allow for the planting of trees which provide shade and comfort for the pedestrian realm. The buffer zone will vary according to the street type. In downtown or commercial districts, a street furniture zone is usually appropriate. Parked cars and/or bicycle lanes can provide an acceptable buffer zone. In suburban or rural areas, a landscape strip is generally most suitable. Careful planning of sidewalks and walkways is important in an area in order to provide adequate safety and mobility. The maximum cross-slope should be two percent to prevent wheelchair tilting and other difficulties. Providing a level sidewalk across driveways tells motorists they are crossing a sidewalk and that the pedestrian has the right-of-way.

**Resources:**

Learn more about sidewalk planning and design with AASHTO’s [Guide for the Planning, Design, and Operation of Pedestrian Facilities](#)<sup>156</sup> or FHWA’s [Designing Sidewalks and Trails for Access, Part II of II: Best Practices Design Guide](#).<sup>157</sup>

**WFC Example:**

Bronze level Sisters, OR’s [Transportation System Plan](#) includes cross-section design standards for sidewalks on various local, neighborhood, and arterial streets [PDF]<sup>158</sup>.

Comprehensive and effective design standards are described in Silver-level **Asheville, NC’s** well-organized [Standard Specifications and Design Plan](#).<sup>159</sup>

**2 Sidewalk mileage**

**Estimate the percent of arterial and non-arterial streets that have sidewalks on both sides of the road, one side of the road, or have paved shoulders (minimum of 4 ft) in your community.**

	Arterial	Non-Arterial
<b>Sidewalks on both sides</b>	Click here to enter text.	Click here to enter text.
<b>Sidewalks on one side</b>	Click here to enter text.	Click here to enter text.
<b>Paved shoulders ≥ 4’</b>	Click here to enter text.	Click here to enter text.

**Please enter the following information about your road network:**

<b>What is the mileage of your total road network?</b>	Click here to enter text.
<b>How many miles of sidewalks are in your pedestrian master plan?</b>	Click here to enter text.
<b>How many miles of new sidewalk did you construct last year?</b>	Click here to enter text.
<b>How many miles of sidewalk did you construct in the last three years?</b>	Click here to enter text.
<b>How many miles of sidewalk do you plan to construct in the next three years?</b>	Click here to enter text.

**Rationale:**

<sup>156</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=2067>

<sup>157</sup> [http://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/publications/sidewalk2/index.cfm](http://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/sidewalk2/index.cfm)

<sup>158</sup> [http://www.ci.sisters.or.us/city-departments/Public%20Works/Sisters%20TSP\\_Final%20Adopted%20Jan-2010.pdf](http://www.ci.sisters.or.us/city-departments/Public%20Works/Sisters%20TSP_Final%20Adopted%20Jan-2010.pdf)

<sup>159</sup> <http://www.ashevilenc.gov/Departments/DevelopmentServices/OrdinancesStandardsCodes.aspx>

The presence of sidewalks in a community is associated with higher levels of walking and physical activity.<sup>160, 161, 162, 163</sup> (Bureau of Transportation Statistics, 2004; Fulton et al., 2005; Institute of Medicine, 2005; Saelens & Handy, 2008) Sidewalks also have tremendous safety benefits as they have been found to [reduce “walking along the roadway” type crashes by 86 percent](#) [PDF];<sup>164</sup> paved shoulders reduce this type of crash by [71 percent](#) [PDF].<sup>165</sup> Walkways should be part of every new and renovated facility and every effort should be made to retrofit streets that currently do not have sidewalks. While sidewalks are typically made of concrete, less expensive walkways may be constructed of asphalt, crushed stone, or other materials if they are properly maintained and accessible (firm, stable, and slip-resistant).

**Resources:**

See PBIC’s page on [sidewalks and walkways](#).<sup>166</sup>

**3 Sidewalk and curb ramp inventory**

**Describe the following inventories and update processes for your community:**

<p><b>Sidewalk inventory:</b> Click here to enter text.</p>
<p><b>Curb ramp inventory:</b> Click here to enter text.</p>
<p><b>Street lighting:</b> Click here to enter text.</p>

<p><b>Please describe your community’s sidewalk retrofit policy to fill gaps, repair sidewalks, and provide new sidewalks as needed.</b> Click here to enter text.</p>
<p><b>What is the annual line item for sidewalk maintenance in your community’s budget?</b> Click here to enter text.</p>

<p><b>Estimate the percent of intersections that have ADA accessible ramps on all four corners.</b></p>	Enter %
<p><b>Estimate the percent of sidewalks that need to be repaired or replaced.</b></p>	Enter %
<p><b>Does your community have a program to install curb ramps?</b></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>How many ramps are installed per year?</b></p>	Click here to enter text.
<p><b>How many ramp installations are planned for next year?</b></p>	Click here to enter text.

<sup>160</sup> Bureau of Transportation Statistics. (2004). *Sidewalks promote walking, BTS Issue Brief, No. 12*. Washington, DC: Department of Transportation. [http://www.bts.gov/publications/issue\\_briefs/number\\_12/pdf/entire.pdf](http://www.bts.gov/publications/issue_briefs/number_12/pdf/entire.pdf)

<sup>161</sup> Fulton, J.E., Shisler, J.L., Yore, M.M., & Casperson, C. (2005). Active transportation to school: Findings from a national survey. *Research Quarterly for Exercise & Sport*, 76(3), 352-357. <http://www.ncbi.nlm.nih.gov/pubmed/16270712>

<sup>162</sup> Institute of Medicine. (2005). Does the built environment influence physical activity? Examining the evidence. Washington, DC: *Institute of Medicine and Transportation Research Board of the National Academies, Report No. 282*. <http://www.trb.org/Main/Blurbs/155343.aspx>

<sup>163</sup> Saelens, B.E. & Handy, S.L. (2008). Built environment correlates of walking: A review. *Medicine & Science in Sports & Exercise*, 40(7S), S550-S556. <http://www.ncbi.nlm.nih.gov/pubmed/18562973>

<sup>164</sup> McMahon, P., Zegeer, C., Duncan, C., Knoblauch, R., Stewart, R., & Khattak, A. (2002). *An analysis of factors contributing to ‘walking along roadway’ crashes: Research study and guidelines for sidewalks and walkways*. (FHWA-RD-01-101). Washington, DC: Federal Highway Administration. [http://www.pedbikeinfo.org/collateral/PSAP%20Training/gettraining\\_references\\_WalkingAlongRoadway.pdf](http://www.pedbikeinfo.org/collateral/PSAP%20Training/gettraining_references_WalkingAlongRoadway.pdf)

<sup>165</sup> Gan, A., Shen, J., & Rodriguez, A. (2005). *Update of Florida crash reduction factors and countermeasures to improve the development of district safety improvement projects*. (BD015-04). Tallahassee, FL: Florida Department of Transportation. [http://edocs.dlis.state.fl.us/fldocs/dot/safety/completed/FDOT\\_BD015\\_04\\_rpt.pdf](http://edocs.dlis.state.fl.us/fldocs/dot/safety/completed/FDOT_BD015_04_rpt.pdf)

<sup>166</sup> [http://www.pedbikeinfo.org/planning/facilities\\_ped\\_sidewalks.cfm](http://www.pedbikeinfo.org/planning/facilities_ped_sidewalks.cfm)

Does your community have a program to repair and replace broken sidewalks?	<input type="checkbox"/> Yes <input type="checkbox"/> No
How many locations (or linear feet) were fixed last year?	<a href="#">Click here to enter text.</a>
How many repairs are planned for next year?	<a href="#">Click here to enter text.</a>
Is there a method for residents to report missing or broken sidewalks and curb ramps?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Please explain the process (e.g. online complaint form): <a href="#">Click here to enter text.</a>	

**Rationale:**

A complete sidewalk network that includes continuous, well maintained, ADA-compliant sidewalks and curb ramps is one of the most important elements in making a community accessible to pedestrians of all abilities. In order to create a complete sidewalk network, communities need to determine the location and condition of existing sidewalks. There are many [different ways to inventory a city’s curb ramps and sidewalks](#) [PDF].<sup>167</sup> Some communities use aerial photographs to begin their inventories. Agencies are increasingly using personal digital assistant tools (PDAs), geographic information system (GIS) software, online data entry, and other newer technologies to complete their inventory.

Having an inventory of the sidewalk system can then help identify and prioritize areas for improvement. Funding the completion and maintenance of the sidewalk system can be challenging. Cities that have comprehensive sidewalk networks don’t always have more money, but they frequently prioritize pedestrian projects differently than others.

Curb ramp design is especially important for wheelchair users. Corners should typically have two curb ramps, one for each street that is to be crossed. Curb ramps should also be designed to include level landings, without which the sidewalk can be quite difficult to navigate in a wheelchair. Additionally, detectable warnings, a distinctive surface pattern of domes detectable by cane or underfoot, are used to alert people with vision impairments of their approach to streets and hazardous drop-offs. The ADA Accessibility Guidelines (ADAAG) require these warnings on the surface of curb ramps (which remove a tactile cue otherwise provided by curb faces) and at other areas where pedestrian ways transition to vehicular ways.

**Resources:**

Institutionalization refers to the construction of good pedestrian infrastructure as part of normal public and private development. When pedestrian accommodation is institutionalized, it is automatically included in funding. Funding can come from both [state and local government sources and private sources](#).<sup>168</sup>

See Chapter 6 of [How to Develop a Pedestrian Safety Action Plan](#).<sup>169</sup>

[“Putting Cities Back on Their Feet”](#) [PDF]<sup>170</sup> by Donald Shoup (2010) describes the benefits of point of sale requirements. These requirements stipulate that property owners must repair any broken sidewalk fronting their property before they sell their property.

[2012 MAP-21’s](#)<sup>171</sup> Transportation Alternatives funding combines funding for Transportation Alternatives, Safe Routes to School, and recreational trails.

**WFC Examples:**

<sup>167</sup> Quiroga, C. & Turner, S. (2008). *ADA compliance at transportation agencies: A review of practices*. College Station, TX: Texas Transportation Institute. [http://onlinepubs.trb.org/onlinepubs/archive/notesdocs/20-07\(249\)\\_fr.pdf](http://onlinepubs.trb.org/onlinepubs/archive/notesdocs/20-07(249)_fr.pdf)

<sup>168</sup> <http://www.pedbikeinfo.org/planning/funding.cfm>

<sup>169</sup> [http://safety.fhwa.dot.gov/ped\\_bike/ped\\_focus/docs/fhwasa0512.pdf](http://safety.fhwa.dot.gov/ped_bike/ped_focus/docs/fhwasa0512.pdf)

<sup>170</sup> <http://shoup.bol.ucla.edu/PuttingCitiesBackOnTheirFeet.pdf>

<sup>171</sup> <https://www.fhwa.dot.gov/map21/>

See **Austin, TX's** [GIS-based approach](#)<sup>172</sup> to sidewalk planning.

**Seattle, WA,** [inventoried and assessed](#) [PDF]<sup>173</sup> the quality of approximately 850 uncontrolled crosswalks in the City.

The [Sidewalk Inspection webpage](#)<sup>174</sup> for the **Minneapolis** Public Works Department clearly explains the procedure for residents to report urgent and non-urgent sidewalk issues. The site also lists repair options for property owners.

Residents in Gold-level **Ann Arbor, MI,** passed a [millage](#)<sup>175</sup> that will fund a 5-year program to repair every existing sidewalk in the city. In addition to the sidewalk repairs, Ann Arbor will continue to repair curb ramps to meet ADA requirements. Property owners were previously required to maintain sidewalks adjacent to their property, but will now pay about \$13 per year to support this program.

The Bronze-level Village of **Shorewood, WI,** rates sidewalk condition on a bi-annual basis. The Department of Public Works administers the sidewalk replacement program in each of the six defined areas of the village on a rotating cycle. All public sidewalks and carriage walks in the target area are reviewed. Defective areas are identified for removal and replacement.

#### 4 Bridges

Please indicate the number of bridges or overpasses in your community and how many of those provide for pedestrians through shoulders, sidewalks, or multiuse paths.

	Number
<b>Bridges (excluding freeways)</b>	Click here to enter text.
<b>Bridges with pedestrian provisions on at least one side</b>	Click here to enter text.
<b>Pedestrian overpasses (or bridges)</b>	Click here to enter text.
<b>Pedestrian underpasses</b>	Click here to enter text.

Identify the last three bridges built (or major reconstruction) in your community. Do the bridges provide pedestrian provisions on at least one side?

<b>Bridge #1</b>	Click here to enter text.
<b>Bridge #2</b>	Click here to enter text.
<b>Bridge #3</b>	Click here to enter text.

Identify bridges currently under design. Do the bridges provide pedestrian provisions on at least one side?

Click here to enter text.

#### Rationale:

Bridges often provide the only safe pedestrian route across certain barriers in a community (freeways, railroad tracks, and natural barriers). Therefore, pedestrians should have access and safe facilities on all

<sup>172</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=4408>

<sup>173</sup> <http://www.ite.org/membersonly/itejournal/pdf/2004/JB04AA42.pdf>

<sup>174</sup> <http://www.minneapolismn.gov/publicworks/sidewalks/index.htm>

<sup>175</sup> <http://a2gov.org/sidewalk>

bridges in a community. Barriers between the pedestrian facility and vehicle travel lanes increase the comfort and safety for pedestrians. Pedestrian overpasses and underpasses should be built when there are no other convenient crossing options with proper consideration given to lighting, drainage, graffiti removal, security, and ADA requirements.

**Resources:**

See the American Association of State Highway and Transportation Officials' [Guide for the Planning, Design, and Operation of Pedestrian Facilities](#).<sup>176</sup>

**WFC Examples:**

Gold-level **Eugene, OR**, currently has five bike/pedestrian bridges over the Willamette River.

All 17 bridges in Bronze-level **La Crosse, WI**, have pedestrian design features and access. A new pedestrian/bicycle bridge was recently constructed on a major local thoroughfare. The route is closed to vehicles, except in cases of emergency access, and is connected to shared-use paths on both sides.

**5 Pedestrian Signaling**

<b>Does your community maintain a pedestrian signaling system?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Please briefly describe initiatives your community has taken to ensure or improve pedestrian access, safety and convenience at signalized intersections. In your description please address the following questions. Provide a link or attachment of the relevant policy or ordinance, if available.</b>	
<b>Link:</b> <a href="#">Click here to enter text.</a>	
<b>Description:</b> <a href="#">Click here to enter text.</a>	
<b>Do you provide pedestrian recall (pedestrians receiving a walk signal during every phase without using a push button) in high pedestrian corridors?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If yes, when and where?</b> <a href="#">Click here to enter text.</a>	
<b>Please describe any passive pedestrian detection (e.g. video, microwave) in your community.</b> <a href="#">Click here to enter text.</a>	
<b>Approximately what percentage of intersections have accessible pedestrian signals with audible walk indications?</b>	Enter %
<b>Approximately what percentage of intersections have pushbutton-integrated accessible pedestrian signals with audible and vibrotactile indications?</b>	Enter %
<b>What is the average walk speed used to determine signal timing?</b>	Enter ft/s
<b>Do you use right-turn-on-red restrictions?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If yes, when and where?</b> <a href="#">Click here to enter text.</a>	
<b>Do you use Leading Pedestrian Intervals?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If yes, when and where?</b> <a href="#">Click here to enter text.</a>	

<sup>176</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=2067>

<b>What is your maximum cycle length in your downtown?</b>	Click here to enter text.
<b>What is your maximum cycle length in your community?</b>	Click here to enter text.
<b>What speed is traffic progress for in downtown?</b>	Click here to enter text.
<b>What is the longest pedestrian crossing that you have?</b>	Click here to enter text.
<b>What is the policy on displaying Walk signals (e.g. &gt;12 seconds or 25% of cycle length)?</b> Click here to enter text.	
<b>What percentage of intersections have countdown signals?</b>	Enter %

**Rationale:**

Pedestrian signal indications should be used at all traffic signals, unless the signal is located on a highway where walking is prohibited. In general, shorter cycle lengths (less than 90 seconds) and longer walk intervals provide better service to pedestrians and encourage better signal compliance. For optimal pedestrian service, signal operation with short cycle lengths works best. Pedestrian pushbuttons may be installed at locations where pedestrians are expected intermittently and should be located close to the crosswalk they serve. In the downtown environment and other pedestrian-oriented areas with close signal spacing, vehicle speeds can be reduced through effective signal progression along a corridor.

Signals may be supplemented with audible or other messages to make crossing information accessible for all pedestrians, including those with vision impairments. Accessible pedestrian signals provide information to pedestrians who are unable to see the visual walk indication and have also been found to help all pedestrians. This is particularly true of pedestrians that have poor visual contrast sensitivity and may be unable to see the visual walk indication reliably, particularly in bright sunlight.

Countdown pedestrian indications are required for all traffic signals by the MUTCD by 2014 and all existing pedestrian signal indicators must be replaced within 10 years. They must be designed to begin counting down at the beginning of the clearance (flashing DON'T WALK) interval and can be on fixed-time or pushbutton operation. In San Francisco, countdown signals have been associated with a [52 percent reduction in pedestrian injury collisions](#) [PDF]<sup>177</sup> at pilot locations.

Prohibiting Right Turn on Red (RTOR) should be considered where and/or when there are high pedestrian volumes, or where there is a proven problem with motorists conflicting with pedestrians. This is due to motorists being so intent on looking for traffic approaching on their left that they may not be alert to pedestrians approaching on their right. A similar scenario exists with permissive left turns, which can be rectified with protected left turn phasing only.

A simple, useful change at signalized intersections is the use of a leading pedestrian interval (LPI). An LPI gives pedestrians an advance walk signal before the motorists get a green indication, giving the pedestrian several seconds to start in the crosswalk before there is a concurrent indication for vehicular traffic. Pedestrians are more visible to motorists and motorists are more likely to yield to them. This application has been used successfully for two decades in places such as New York City, and studies have demonstrated reduced conflicts for pedestrians. The LPI is particularly effective where there are multiple lanes turning. To be useful to pedestrians with vision impairments, an LPI needs to be accompanied by an audible signal to indicate the walk interval. The LPI is now specifically allowed by Section 4E.06 of the 2009 MUTCD.

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<sup>177</sup> Markowitz, F., Sciortino, S., Fleck, J. L., & Yee, B. M. (2006, January). Pedestrian countdown signals: Experience with an extensive pilot installation. *Institute of Transportation Engineers Journal*, 76(1), 43-48. Updated by Memorandum: Olea, R. (2006, February 7). Collision changes 2002–2004 and countdown signals.

<http://www.bikewalk.org/2006conference/vconference/presentations/PedestrianandBicycleTrafficSignalIssuesandDirections2.pdf>

## Resources:

The PEDSAFE [guide](#)<sup>178</sup> provides the latest information available for improving the safety and mobility of those who walk. These online tools provide the user with a list of possible engineering, education, or enforcement treatments to improve pedestrian safety and/or mobility based on user input about a specific location.

For more information on engineering treatments for pedestrian safety consult:

- The Federal Highway Administration’s [Manual on Uniform Traffic Control Devices \(MUTCD\)](#)<sup>179</sup>
- PBIC’s general overview of [pedestrian signals](#)<sup>180</sup>
- National Cooperative Highway Research Program’s best practices for [Accessible Pedestrian Signals \(APS\)](#)<sup>181</sup>
- The American Association of State Highway and Transportation Officials’ [Guide for the Planning, Design, and Operation of Pedestrian Facilities](#)<sup>182</sup>
- Chapter 5 of [How to Develop a Pedestrian Safety Action Plan](#)<sup>183</sup> [PDF]
- The U.S. Access Board’s proposed [public rights-of-way guidelines](#)<sup>184</sup>

## WFC Example

Many of **Chicago’s** pedestrian signals have been retrofitted with countdown signals and leading pedestrian interval signals. Signal timing is slower in areas with older populations.

The pedestrian signal policies in Silver-level **Asheville, NC**, are part of the city’s [Complete Streets](#) [PDF].<sup>185</sup> LPIs and right-turn-on-red restrictions are used in areas with a high pedestrian volume. An impressive 90 percent of intersections have countdown signals.

Gold-level **Washington D.C.’s** [Pedestrian Master Plan](#)<sup>186</sup> lists several initiatives for improving pedestrian safety at signalized intersections (pages 32-40 of Appendix C). DDOT has installed Leading Pedestrian Intervals at approximately 80 intersections in the city, with more to come. In 2010, all-red pedestrian scramble signals were installed at two major intersections, and DDOT has more Pedestrian Hybrid Beacons scheduled for installation. Ninety percent of traffic signals are pre-timed with walk phase recall.

## 6 Crosswalks

**Please briefly describe initiatives your community has taken to ensure or improve pedestrian access, safety and convenience at crosswalks. In your description please address the following questions. Provide a link or attachment of the relevant policy or ordinance, if available.**

**Link to policy or ordinance:** [Click here to enter text.](#)

**Description:**

[Click here to enter text.](#)

**How are marked crosswalk locations selected?**

[Click here to enter text.](#)

<sup>178</sup> <http://www.pedbikesafe.org/PEDSAFE/index.cfm>

<sup>179</sup> <http://mutcd.fhwa.dot.gov/>

<sup>180</sup> [http://www.pedbikeinfo.org/planning/facilities\\_crossings\\_pedsignals.cfm](http://www.pedbikeinfo.org/planning/facilities_crossings_pedsignals.cfm)

<sup>181</sup> <http://www.apsguide.org/about.cfm>

<sup>182</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=2067>

<sup>183</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=229>

<sup>184</sup> <http://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way/proposed-rights-of-way-guidelines>

<sup>185</sup> <http://www.ashevilenc.gov/Portals/0/city-documents/economicdevelopment/ped/PED%20Report-Complete%20Streets-15%20May%202012.pdf>

<sup>186</sup> <http://ddot.dc.gov/node/478082>

<b>What is your standard crosswalk marking type (e.g., parallel lines, ladder style, high visibility, etc.)?</b> Click here to enter text.	
<b>Please describe your crosswalk inventory and update process:</b> Click here to enter text.	
<b>Are crosswalk markings regularly maintained?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Describe:</b> Click here to enter text.	
<b>Are <a href="#">in-road stop/yield signs</a><sup>187</sup> used?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If yes, how are these locations selected?</b> Click here to enter text.	
<b>Are advance stop/yield lines placed at multilane uncontrolled marked crosswalks in order to reduce multiple threat crashes?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Describe:</b> Click here to enter text.	

<b>Are there other pedestrian safety practices being used at crosswalks?</b> Click here to enter text.
<b>Are pedestrian hybrid beacons and rectangular rapid flash beacons used? Please describe when are where (e.g. in close proximity to schools, bus stops, trail crossings, etc.):</b> Click here to enter text.

**Rationale:**

Marked crosswalks serve to highlight the right-of-way where motorists can expect pedestrians to cross. Various crosswalk marking patterns are given in the Manual on Uniform Traffic Control Devices; however, the international (also known as "ladder" or "zebra") markings are strongly preferred, particularly at uncontrolled locations, because they are far more visible, which is particularly important at night or in low light conditions (e.g., rain).

At midblock marked crosswalks, an advance stop/yield line can help prevent multiple threat crashes at crosswalks on multilane roads. This type of crash occurs when a driver stops too close to the crosswalk to let a pedestrian cross, masking visibility of the adjacent travel lane. An advance stop/yield line placed 20 to 50 feet ahead of the crosswalk can greatly reduce the likelihood of a multiple-threat crash, as this encourages drivers to stop back far enough so a pedestrian can see if a second motor vehicle is not stopping and take evasive action. The advance yield/stop line should be supplemented with "Stop Here For Pedestrians" signs (R1-5 or R1-5a) to alert drivers where to stop to let a pedestrian cross.

Pedestrian Hybrid Beacon or the HAWK (High-intensity Activated crosswalk) beacon is an effective traffic control device that uses traditional traffic and pedestrian signal heads but in a different configuration. These beacons are named Pedestrian Hybrid Beacons in the MUTCD and can be used to aid pedestrians and bicyclists at unsignalized crossings, particularly at high speed or volume locations. The hybrid beacon is now specifically allowed by Section 4F.02 of the 2009 MUTCD.

Another effective traffic control device is the rectangular rapid flash beacon (RRFB). Van Houten and Malenfant (1992)<sup>188</sup> found motorist yield rates of over 80 percent with these devices on roadways with

<sup>187</sup> [http://mutcd.fhwa.dot.gov/htm/2009/part2/fig2b\\_02\\_longdesc.htm](http://mutcd.fhwa.dot.gov/htm/2009/part2/fig2b_02_longdesc.htm)

<sup>188</sup> Van Houten, R. & Malenfant, L. (1992). The influence of signs prompting motorists to yield 50 ft (15.5 m) before marked crosswalks on motor vehicle-pedestrian conflicts at crosswalks with pedestrian activated flashing lights. *Accident Analysis and Prevention*, 24, 217-225. <http://www.ncbi.nlm.nih.gov/pubmed/1376601>

medians. These beacons are yellow, rectangular, and have a rapid “wig-wag” flash activated through active or passive detection.

**Resources:**

PBIC has more general information on [crosswalks and crosswalk materials](#).<sup>189</sup>

Recommended guidelines and priorities for crosswalk installation at uncontrolled locations are given in the FHWA document, [Safety Effect of Marked Versus Unmarked Crosswalks at Uncontrolled Locations: Final Report and Recommended Guidelines](#).<sup>190</sup>

For best practices for crosswalk installation, see:

- The PEDSAFE [guide](#).<sup>191</sup>
- The FHWA’s [Manual on Uniform Traffic Control Devices \(MUTCD\)](#).<sup>192</sup>
- The American Association of State Highway and Transportation Officials’ [Guide for the Planning, Design, and Operation of Pedestrian Facilities](#).<sup>193</sup>
- Chapter 5 of [How to Develop a Pedestrian Safety Action Plan](#).<sup>194</sup>
- National Cooperative Highway Research Program’s [Accessible Pedestrian Signals \(APS\)](#).<sup>195</sup> best practices
- Examples of [model snow removal policies for city sidewalks](#).<sup>196</sup>
- Columbia, MO, has [helpful policy and standards for pedestrian crossings](#) [PDF].<sup>197</sup>

**WFC Example:**

**Flagstaff, AZ’s** [Safe Sidewalk Code](#).<sup>198</sup> prohibits snow on public sidewalks.

Bronze-level **La Crosse, WI**, has a green complete streets ordinance and a citywide traffic calming policy that includes directives for annual crosswalk repainting and maintenance. They city of 51,000 has also installed six [RRFBs](#).<sup>199</sup> at midblock crosswalks.

Gold-level **Washington, DC’s**, [Pedestrian Master Plan](#).<sup>200</sup> lists multiples initiatives for improving pedestrian safety at uncontrolled crosswalks, including advance stop lines at uncontrolled marked sidewalks, pedestrian refuges and pedestrian hybrid signals.

Boulder, CO’s, [Pedestrian Crossing Treatment Installation Guidelines](#).<sup>201</sup> is an excellent example of context-sensitive best practices, and contains a number of helpful supplemental policy suggestions and implementation steps related to crossing treatments.

**7 Roadway Design**

<b>Does your community design and build its own roadways?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
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<sup>189</sup> [http://www.pedbikeinfo.org/planning/facilities\\_crossings\\_crosswalks.cfm](http://www.pedbikeinfo.org/planning/facilities_crossings_crosswalks.cfm)  
<sup>190</sup> <http://www.tfhr.gov/safety/pubs/04100/index.htm>  
<sup>191</sup> <http://www.pedbikesafe.org/PEDSAFE/index.cfm>  
<sup>192</sup> <http://mutcd.fhwa.dot.gov/>  
<sup>193</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=2067>  
<sup>194</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=229>  
<sup>195</sup> <http://www.apsguide.org/about.cfm>  
<sup>196</sup> [http://www.pedbikeinfo.org/data/faq\\_details.cfm?id=4125](http://www.pedbikeinfo.org/data/faq_details.cfm?id=4125)  
<sup>197</sup> <http://gocolumbiamo.com/PublicWorks/documents/Engineering/cwpolicy.pdf>  
<sup>198</sup> <http://www.flagstaff.az.gov/index.aspx?NID=1237>  
<sup>199</sup> <http://safety.fhwa.dot.gov/intersection/resources/techsum/fhwasa09009/>  
<sup>200</sup> <http://ddot.dc.gov/page/pedestrian-master-plan-2009>  
<sup>201</sup> <http://www-static.bouldercolorado.gov/docs/pedestrian-crossing-treatment-installation-guidelines-1-201307011719.pdf>

What geometric features are being used to ensure or improve pedestrian access, safety and convenience? In your description please address the following questions. Provide a link or attachment of the relevant policy or ordinance, if available.

<p><b>Are median crossing/refuge islands used? Is there a standard or typical roadway that these are used on? How many have been installed in the last three years (on new roadways or retrofits)? Are any more planned?</b></p>
<p><b>Link to island policy:</b> <a href="#">Click here to enter text.</a></p>
<p><b>Description:</b> <a href="#">Click here to enter text.</a></p>
<p><b>Do you routinely install curb extensions? How many have been installed in the last three years? Are any more planned?</b></p>
<p><b>Link to curb extension policy:</b> <a href="#">Click here to enter text.</a></p>
<p><b>Description:</b> <a href="#">Click here to enter text.</a></p>
<p><b>What is the standard curb radius (10', 15', 20', 25' 30', 35') for local, collector, and arterial streets?</b></p>
<p><b>Link to curb radius policy:</b> <a href="#">Click here to enter text.</a></p>
<p><b>Description:</b> <a href="#">Click here to enter text.</a></p>
<p><b>What other geometric design features are implemented for pedestrian safety?</b></p>
<p><b>Link to other design features:</b><a href="#">Click here to enter text.</a></p>
<p><b>Description:</b> <a href="#">Click here to enter text.</a></p>
<p><b>Has your community taken initiatives to increase safety for people crossing the street at bus stops that are not located at signalized intersections?</b></p>
<p><b>Link to bus stop policy:</b><a href="#">Click here to enter text.</a></p>
<p><b>Description:</b> <a href="#">Click here to enter text.</a></p>
<p><b>Please describe your community's use of multi-modal level of service in the <a href="#">2010 Highway Capacity Manual</a>.<sup>202</sup> Please include information on standards, goals, and the hierarchy of pedestrian/transit/bicycle/vehicular LOS used to evaluate and design streets and intersections in your community.</b></p> <p><a href="#">Click here to enter text.</a></p>

**Rationale:**

Crossing islands—also known as center islands, refuge islands, pedestrian islands, or median slow points—are raised islands placed in the center of the street at intersections or midblock to help protect crossing pedestrians from motor vehicles. Center crossing islands let pedestrians deal with only one direction of traffic at a time: they allow pedestrians to stop partway across the street and wait for an adequate gap in traffic before crossing the second half of the street. This kind of facility has been demonstrated to

<sup>202</sup> <http://hcm.trb.org/>

significantly decrease the percentage of pedestrian crashes by 25-50 percent<sup>203, 204</sup> and reduce all crashes by 30-35 percent,<sup>205</sup> thus making the roadway safer for all users.

Curb extensions—also known as bulb-outs or neckdowns—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; visually and physically narrowing the roadway; improving the ability of pedestrians and motorists to see each other; and reducing the time that pedestrians are in the street. Curb extensions are only appropriate where there is an on-street parking lane. The turning needs of larger vehicles, such as school buses, must be considered in curb extension design. Bicycle lanes (or shoulders, or whatever space is being used for bicycle travel) must not be eliminated or squeezed in order to create the curb extensions or islands.

One common pedestrian crash type involves a pedestrian who is struck by a right-turning vehicle at an intersection. A wide curb radius typically results in high-speed turning movements by motorists. Reconstructing the turning radius to a tighter turn will reduce turning speeds, shorten the crossing distance for pedestrians, and also improve sight distance between pedestrians and motorists. Curb radii can, in fact, be tighter than any modern guide would allow: older and some neo-traditional cities frequently have radii of 10 to 15 feet without suffering any detrimental effects. More typically, in new construction, the appropriate turning radius is about 15 feet for residential streets and about 25 feet for arterial streets with a substantial volume of turning buses and/or trucks.

The Bureau of Transportation Statistics' 2000 report *Freedom to Travel*<sup>206</sup> discusses the barrier effect of roadways included problems due to wide roadways and complex signals.

One of the significant variables identified in the development of *Intersection Safety Indices (ISI)*<sup>207</sup> for pedestrians was the number of through lanes. More lanes mean wider roadways, creating a longer crossing distance which is less safe for pedestrians.

## Resources:

For more information on geometric design, see:

- The Federal Highway Administration's *Manual on Uniform Traffic Control Devices*<sup>208</sup>
- The American Association of State Highway and Transportation Officials' *Guide for the Planning, Design, and Operation of Pedestrian Facilities*<sup>209</sup> or its *A Policy on Geometric Design of Highways and Streets*<sup>210</sup>
- Chapter 5 of *How to Develop a Pedestrian Safety Action Plan*<sup>211</sup>
- The Federal Highway Administration's *Guidance Memorandum on Consideration and Implementation of Proven Safety Countermeasures*<sup>212</sup> (2008) provides guidance for sidewalks and pedestrian refuges.

## WFC Examples:

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<sup>203</sup> Institute of Transportation Engineers. (2004, April). *Toolbox of countermeasures and their potential effectiveness to make intersections safer*, Briefing Sheet 8. Washington, DC: ITE, FHWA. <http://www.ite.org/technical/IntersectionSafety/toolbox.pdf>

<sup>204</sup> Zegeer, C.V., Stewart, J.R., Huang, H.H., and Lagerwey, P.A. (2002). *Safety effects of marked vs. unmarked crosswalks at uncontrolled locations: Executive summary and recommended guidelines*. (FHWA-RD-01-075). Washington, DC: Federal Highway Administration. [http://www.pedbikeinfo.org/collateral/PSAP%20Training/gettraining\\_references\\_Effects\\_Un\\_MarkedCrosswalks\\_Summary.pdf](http://www.pedbikeinfo.org/collateral/PSAP%20Training/gettraining_references_Effects_Un_MarkedCrosswalks_Summary.pdf)

<sup>205</sup> Bahar, G., Parkhill, M., Hauer, E., Council, F., Persaud, B., Zegeer, C., et. al. (2007, May). *Prepare parts I and II of a highway safety manual: Knowledge base for part II*. Unpublished material from NCHRP Project 17-27.

<sup>206</sup> [http://www.bts.gov/publications/freedom\\_to\\_travel/](http://www.bts.gov/publications/freedom_to_travel/)

<sup>207</sup> <http://www.tfhr.gov/safety/pedbike/pubs/06125/06125.pdf>

<sup>208</sup> <http://mutcd.fhwa.dot.gov/>

<sup>209</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=2067>

<sup>210</sup> [https://bookstore.transportation.org/collection\\_detail.aspx?ID=110](https://bookstore.transportation.org/collection_detail.aspx?ID=110)

<sup>211</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=229>

<sup>212</sup> <http://safety.fhwa.dot.gov/policy/memo071008/>

Gold-level **Hoboken, NJ**, began ""[daylighting](#)""<sup>213</sup> street corners with vertical delineators to help improve visibility between oncoming vehicles and pedestrians in uncontrolled crosswalks. At \$40 each, the vertical delineators offer a cheaper, faster solution compared to constructing curb extensions. The city identified priority corners based on historical accident data and community input.

Roundabouts are used extensively in Silver-level **Bend, OR**. The city adopted a "roundabouts first" policy, while recognizing that site-specific conditions or other factors may ultimately necessitate other intersection forms. Evaluation criteria are included in the [roundabout policy and design guidelines](#).<sup>214</sup>

See also:

- **Seattle's [Rights of Way Improvement Manual](#)**<sup>215</sup>
- **San Francisco's [Better Streets Plan](#)**<sup>216</sup>
- **Charlotte's [Urban Street Design Guidelines](#)**<sup>217</sup>

## 8 Traffic Calming

Please briefly describe your community's traffic calming practices and/or policies and cite any relevant examples. Traffic calming practices may include road diets, lane diets (reduction in lane width) or streets with a pedestrian focus. Provide any relevant links or attachments, if available.

<b>Link to calming practices document:</b> <a href="#">Click here to enter text.</a>
<b>Description of practices:</b> <a href="#">Click here to enter text.</a>
<b>Please describe any recent road diets:</b> <a href="#">Click here to enter text.</a>
<b>Please describe your traffic calming methods including typical treatments and site selection and prioritization:</b> <a href="#">Click here to enter text.</a>
<b>What is the maximum speed limit at traffic signals in your community?</b> <a href="#">Click here to enter text.</a>
<b>Do you have school zones and reduced speed limits? Please describe:</b> <a href="#">Click here to enter text.</a>
<b>What is the posted speed of the majority of the arterial roads in your community?</b> <a href="#">Click here to enter text.</a>
<b>What is the posted speed of the main roads in your downtown?</b> <a href="#">Click here to enter text.</a>

### Rationale:

Traffic calming is a way to design streets that uses physical and visual cues to encourage motorists to drive more slowly. If done correctly, traffic calming reduces traffic speeds, the number and severity of crashes, and noise levels. It can also encourage walking because reduced speeds and improved aesthetics improve pedestrian comfort. Types of traffic calming techniques include horizontal shifts, vertical deflection, and closures.

A road diet typically reduces the number of travel lanes on a road, reallocating this space for other needs (pedestrian paths, bicycle lanes, transit facilities, etc.). Road diets provide many benefits to pedestrians,

<sup>213</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=4801>

<sup>214</sup> <http://bendoregon.gov/modules/showdocument.aspx?documentid=2512>

<sup>215</sup> <http://www.seattle.gov/transportation/rowmanual/manual/>

<sup>216</sup> <http://www.sf-planning.org/ftp/BetterStreets/index.htm>

<sup>217</sup> <http://charmbeck.org/city/charlotte/Transportation/PlansProjects/Pages/Urban%20Street%20Design%20Guidelines.aspx>

including reduced crossing distance, room for median islands to break the crossing into two simpler crossings, and a buffer zone for the sidewalk through the addition of wider sidewalks, parking, or bicycle lanes. As many roadways have been overbuilt, most communities have many road diet candidates. A typical road diet reduces a four lane road to a three lane road; this can often be done on roads with less than 15,000 ADT. Road diets also make roads safer. One study found that a traditional 4-to-3 road diet resulted in a 29 percent crash reduction for all users.<sup>218</sup>

### Resources:

General information can be found on PBIC's Facility Design webpage, under [traffic calming](#).<sup>219</sup> See also: Chapter 5 of [How to Develop a Pedestrian Safety Action Plan](#) [PDF].<sup>220</sup>

Learn more about road diets in [Road Diets: Fixing the Big Roads](#) [PDF]<sup>221</sup> and [Evaluation of Lane Reduction "Road Diet" Measures and Their Effects on Crashes and Injuries](#).<sup>222</sup> The [U.S. Traffic Calming Manual](#)<sup>223</sup> is a great comprehensive resource for slowing speeds through a range of treatments and street types.

### WFC Example:

**Seattle's Neighborhood Traffic Calming**<sup>224</sup> program involves residents in the process of collecting data that will help determine if traffic calming is needed in a neighborhood. The [neighborhood traffic circles](#)<sup>225</sup> in Seattle are a particularly impressive traffic calming tool.

Silver-level **Burlington, VT**, has a robust [traffic calming and neighborhood enhancement program](#).<sup>226</sup> The city's traffic calming practices are transparent to the public and well documented online. Typical treatments include road diets, bump-outs, chicanes, and raised crosswalks. Burlington has completed impressive road diet and lane narrowing projects and recently reduced the citywide speed limit to 25 mph. The main shopping street has a speed limit of 5 mph and other downtown streets have a speed limit of 20 mph.

## 9 Other Engineering Projects or Policies

**Please briefly describe any other engineering projects or policies affecting walking in your community.**

[Click here to enter text.](#)

<sup>218</sup> Harkey, D. et al. (2008.) *NCHRP Report No. 617: Accident modification factors for traffic engineering and ITS improvements*. Washington, DC: Transportation Research Board. [http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\\_rpt\\_617.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_617.pdf)

<sup>219</sup> <http://www.pedbikeinfo.org/planning/facilities.cfm>

<sup>220</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=229>

<sup>221</sup> [http://nacto.org/docs/usdg/road\\_diets\\_fixing\\_big\\_roads\\_burden.pdf](http://nacto.org/docs/usdg/road_diets_fixing_big_roads_burden.pdf)

<sup>222</sup> <http://www.fhwa.dot.gov/publications/research/safety/10053/index.cfm>

<sup>223</sup> [http://www.planning.org/store/product/?ProductCode=BOOK\\_A64606](http://www.planning.org/store/product/?ProductCode=BOOK_A64606)

<sup>224</sup> [http://www.seattle.gov/transportation/ntcp\\_calming.htm](http://www.seattle.gov/transportation/ntcp_calming.htm)

<sup>225</sup> <http://www.seattle.gov/transportation/trafficircles.htm>

<sup>226</sup> <http://www.burlingtonvt.gov/DPW/Traffic-Calming-Neighborhood-Enhancement-Program>

# ENFORCEMENT

In many communities, enforcement is often neglected as a technique for making communities safer for walking. Communities that have created comfortable walking environments through engineering improvements or urban design features may still have safety concerns if traffic laws are not properly understood or adequately enforced. Enforcement activities work best when implemented in conjunction with education and awareness activities. Therefore, well-implemented enforcement campaigns will include public education campaigns, law enforcement officer training, and strategic law enforcement and ticketing strategies. A successful enforcement program will usually require the involvement of community members, law enforcement officials, city council members, and the media.

## 1 Traffic Safety Officer

<b>Does your community have a traffic safety officer within the Police Department?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Does your community have a traffic safety division/unit within the Police Department?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Does your community have police patrols on foot or bike?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If so, please describe (include the number of officers that are bike patrol certified).</b> <a href="#">Click here to enter text.</a>	
<b>Please estimate the number of patrol officers and amount of time that is devoted to responsibilities concerning pedestrian laws and safety.</b> <a href="#">Click here to enter text.</a>	

### Rationale:

Demands on a police department and the level of support departments can offer vary from community to community. Law enforcement agencies are stretched thin in most communities, and the typical response to requests for pedestrian enforcement support is "we don't have enough officers." By designating a traffic safety officer, communities can prioritize traffic safety enforcement.

### Resources:

The [Sacramento Police Department](#)<sup>227</sup> received grant funding for traffic education, training and enforcement around schools in the City of Sacramento.

### WFC Example:

In **Santa Monica, CA**, the [Neighborhood Resource Officer \(NRO\) program](#)<sup>228</sup> has been the face of the police department and has exemplified community-oriented policing since 2008.

**Asheville, NC**, has a budget set aside for extra officers on weekends and during events. The Traffic Safety Unit conducts pedestrian decoy operations, averaging about 15 man-hours a month and sometimes

<sup>227</sup> <http://sacramentocityexpress.com/2014/10/20/police-department-receives-grant-for-special-school-traffic-safety-education-enforcement-officer/>

<sup>228</sup> <http://santamoniacpd.org/nro/>

resulting in over 20 citations. Each district in Asheville has a dedicated traffic safety officer and its own traffic safety plan. This plan is reviewed and updated every six months.

## 2 Targeted Enforcement

Does your community use the following targeted enforcement programs to ensure the safety and security of pedestrians in crosswalks and on city streets, trails, and walkways? Indicate which of these elements, if any, are part of the enforcement program.

<p><b>Targeted pedestrian crossing operations (e.g., use of plain-clothed “decoy pedestrian” officers to enforce motorist yielding laws)</b></p> <p><i>Definition: From <a href="http://www.pedbikeinfo.org">www.pedbikeinfo.org</a>: These are well-prepared and coordinated operations designed to warn motorists that the yield-to-pedestrian laws will be enforced at target locations. Officers prepare a site by establishing the safe stopping distance to a crosswalk, with a 10 mi/h over the speed limit leeway. Cones are set out in that location. An officer in plain clothes steps into the crosswalk just before a vehicle passes the cone. If the motorist doesn't yield, either a warning or a citation is given, based on the severity of the incident.</i></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>Please describe the extent and frequency of the operation (include how sites are selected):</b>  <a href="#">Click here to enter text.</a></p>	
<p><b>Media campaigns regarding enforcement</b></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>Please describe media activities and frequency:</b>  <a href="#">Click here to enter text.</a></p>	
<p><b>Speed feedback signs</b></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>Please describe the frequency of use (include how sites are selected):</b>  <a href="#">Click here to enter text.</a></p>	
<p><b>DUI checkpoint operations</b></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>Please describe the extent and frequency of operations (include how sites are selected):</b>  <a href="#">Click here to enter text.</a></p>	
<p><b>Targeted speed enforcement</b></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>Please describe the extent and frequency of the operations (include how sites are selected):</b>  <a href="#">Click here to enter text.</a></p>	
<p><b>Progressive ticketing</b></p> <p><i>Definition: From <a href="http://www.pedbikeinfo.org">www.pedbikeinfo.org</a>: Progressive ticketing is a method for introducing ticketing through a three-staged process: educating, warning, and ticketing.</i></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>Please describe when and why progressive ticketing processes are deployed.</b>  <a href="#">Click here to enter text.</a></p>	
<p><b>Emergency call boxes.</b></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>Please describe the extent of sites and how they are selected:</b>  <a href="#">Click here to enter text.</a></p>	
<p><b>Other</b></p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>Please describe:</b>  <a href="#">Click here to enter text.</a></p>	

### Rationale:

Enforcement may be the most important element in getting drivers to yield to pedestrians in crosswalks. Enforcement programs should be coupled with an education component to ensure that drivers and pedestrians understand traffic rules. The awareness and education messages should tell people about the

problem and why enforcement action is necessary. This will help generate public support and offset any complaints from those who are caught breaking the law. The public also needs to know what the enforcement activities will be and when they will start. Get the word out by mailing materials to residents living within a certain distance of the program area and using local television stations and newspapers to spread the message. For some drivers, raising that awareness may be enough to cause them to alter their unsafe actions; for others, seeing that traffic laws are being regularly enforced may change their behavior.

### Resources:

See PBIC's overviews of:

- [improving yield-to-pedestrian compliance](#)<sup>229</sup>
- [law enforcement approaches](#)<sup>230</sup>
- [impact of in-street crosswalk signs](#)<sup>231</sup>

You can also refer to Chapter 8 of [Countermeasures That Work](#) [PDF]<sup>232</sup> for more information on effective techniques to improve pedestrian safety.

Get more information on [relaying important messages](#)<sup>233</sup> to target audiences, including child and college-age pedestrians, alcohol consumers, and older adults. Learn what [steps your community can take](#)<sup>234</sup> if crime is preventing people from walking.

The Federal Highway Administration has created [education materials](#)<sup>235</sup> for Spanish speaking bicyclists and pedestrians, and the National Highway Traffic Safety Administration has created [Guidelines for Developing Traffic Safety Materials for Spanish-Speaking Audiences](#).<sup>236</sup>

### WFC Examples:

[Street Smart](#)<sup>237</sup> is a public awareness and enforcement campaign in its tenth year that uses print, outdoor, online, and broadcast media channels throughout the metropolitan Washington area, including **Arlington, VA**, to reach a diverse audience.

In **Ann Arbor, MI**, the [Ann Arbor Safe Streets and Sidewalks Taskforce \(A2S3\)](#)<sup>238</sup> addresses safety issues on streets and sidewalks. A2S3 has worked closely with police to launch targeted enforcement campaigns to enforce the right-of-way for pedestrians at crosswalks.

**Philadelphia's** [Give Respect/Get Respect](#)<sup>239</sup> enhanced ticketing campaign combined educational materials with enforcement. The greatest number of citations was given for sidewalk cycling followed by driving with cell phones, running red lights, and wrong-way cycling.

**Chicago** Public Schools runs the [Safe Passages program](#),<sup>240</sup> which employs community watchers to patrol a five-block radius around high schools during the times when crime and gang violence is most likely to occur.

## 3 Citation

<b>Please list the number of citations given in the past year for the following infractions:</b>
--

<sup>229</sup> [http://www.pedbikeinfo.org/data/faq\\_details.cfm?id=3921](http://www.pedbikeinfo.org/data/faq_details.cfm?id=3921)

<sup>230</sup> <http://www.pedbikeinfo.org/programs/enforcement.cfm>

<sup>231</sup> [http://www.pedbikeinfo.org/data/faq\\_details.cfm?id=3455](http://www.pedbikeinfo.org/data/faq_details.cfm?id=3455)

<sup>232</sup> [http://ntl.bts.gov/lib/32000/32300/32356/6626\\_Countermeasures\\_01-06-10-v1.pdf](http://ntl.bts.gov/lib/32000/32300/32356/6626_Countermeasures_01-06-10-v1.pdf)

<sup>233</sup> <http://www.pedbikeinfo.org/programs/education.cfm>

<sup>234</sup> <http://www.pedbikeinfo.org/community/crime.cfm>

<sup>235</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=3467>

<sup>236</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=2321>

<sup>237</sup> <http://www.bestreetsmart.net/resources.php>

<sup>238</sup> <http://annarbor.com/news/ann-arbor-police-begin-ticketing-motorists-who-dont-stop-for-pedestrians/>

<sup>239</sup> <http://bicyclecoalition.org/our-campaigns/biking-in-philly/enforcement/#sthash.stXH0spQ.dpbs>

<sup>240</sup> <http://cps.edu/Pages/safepassage.aspx>

<b>a. Failure to yield to pedestrians:</b>	Click here to enter text.
<b>b. Parking on sidewalks or too close to intersections or crosswalk:</b>	Click here to enter text.
<b>Does your community use photo enforcement technology that targets speeding and/or red light running?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If so, please describe the extent of the program and how long it has been in place.</b> Click here to enter text.	

### Rationale:

There are a variety of ways that law enforcement officers, community members, city planners, and public works departments can increase the safety of pedestrians from traffic dangers as well as crime. Police presence can be important elements in creating a safe and secure walking environment. It is important for law enforcement agencies to regularly enforce traffic violations, and those that relate to pedestrian safety should be enforced with the same rigor as others. Tracking traffic citations can help communities better understand what types of traffic safety problems exist. Note that it is important to have cooperation with the court system to ensure conviction of these violations.

Police departments may choose to use a progressive ticketing approach or a combined enforcement and education approach, as these tend to be better received and more effective than unexplained ticketing. Studies by [Van Houten and Malenfant](#) (2004) have found that enforcement aimed at motorists is more effective than enforcement aimed at pedestrians.<sup>241</sup>

Speed photo-radar enforcement (SPE) has also been shown to be effective in reducing automobile speeds. A 2009 study by [Medina et al.](#)<sup>242</sup> showed that SPE significantly reduced downstream speeds among both cars and trucks.

Photo enforcement is also helpful in reducing the rate of red light running. Two studies in Fairfax, VA,<sup>243</sup> and Oxnard, CA,<sup>244, 245</sup> showed 42 and 40 percent reductions in red-light violators after a publicized photo enforcement system was introduced.

### Resources:

Citations alone are generally not enough to encourage motorists to yield to pedestrians. Learn about more effective [enforcement alternatives](#).<sup>246</sup>

See also Chapter 8 in [Countermeasures That Work](#) [PDF]<sup>247</sup> for more information on effective enforcement techniques to improve pedestrian safety.

For more information on mid-block pedestrian crossing ordinances, refer to PBIC's [FAQ on jaywalking](#).<sup>248</sup>

<sup>241</sup> Van Houten, R., and Malenfant, J.E.L. (2004). Effects of a driver enforcement program on yielding to pedestrians. *J Appl Behav Anal.* 2004 Fall; 37(3): 351–363. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1284509/>

<sup>242</sup> Medina, J., Benekohal, R., Hajbabaie, A., Wang, M., and Chitturi, M. (2009). Downstream effects of speed photo-radar enforcement and other speed reduction treatments on work zones. *Journal of the Transportation Research Board.* Washington, D.C.: Transportation Research Board. <http://pubsindex.trb.org/view.aspx?id=882380>

<sup>243</sup> Retting, R.A.; Williams, A.F.; Farmer, C.M. and Feldman, A.F. (1999). Evaluation of red light camera enforcement in Fairfax, Virginia. *ITE Journal* 69:30-34.

<sup>244</sup> Retting, R.A.; Williams, A.F.; Farmer, C.M. and Feldman, A.F. (1999). Evaluation of red light camera enforcement in Oxnard, California. *Accident Analysis and Prevention* 31:169-74.

<sup>245</sup> Retting, R. A., and Kyrychenki, S. Y. (2002). Reductions in Injury Crashes Associated with Red Light Camera Enforcement in Oxnard, California. *American Journal of Public Health.* 92(11): 1822-1825. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447335/>

<sup>246</sup> [http://www.pedbikeinfo.org/data/faq\\_details.cfm?id=4119](http://www.pedbikeinfo.org/data/faq_details.cfm?id=4119)

<sup>247</sup> [http://ntl.bts.gov/lib/32000/32300/32356/6626\\_Countermeasures\\_01-06-10-v1.pdf](http://ntl.bts.gov/lib/32000/32300/32356/6626_Countermeasures_01-06-10-v1.pdf)

<sup>248</sup> [http://www.pedbikeinfo.org/data/faq\\_details.cfm?id=4127](http://www.pedbikeinfo.org/data/faq_details.cfm?id=4127)

See page 101 of [How to Develop a Pedestrian Safety Action Plan](#) [PDF]<sup>249</sup> for an example of photo speed enforcement in addition to citations given by law enforcement officers.

**WFC Example:**

[Red light cameras \(automated photo enforcement\)](#)<sup>250</sup> are used in **Seattle, WA**.

The **Atlanta, GA**, police department launched a Video Integration Center (VIC) in 2011, which gives the department a “force multiplier” in the form of cameras at critical locations throughout the city. The VIC is collaboration with the Atlanta Police Foundation and relies on a network of cameras from other government agencies and private businesses throughout the city.

#### 4 Crossing Guards

**Please briefly describe your community’s policies and practices regarding the use of adult crossing guards at elementary and middle schools. Include any information about the criteria for placement of adult crossing guards, training programs, crossing procedures, crossing guard signs and equipment, and law enforcement strategies at crossing guard locations.**

[Click here to enter text.](#)

**Provide a link or attachment of any relevant policies, if available:** [Click here to enter text.](#)

**Rationale:**

Adult school crossing guards play an important role in the lives of children who walk or bicycle to school. They help children safely cross the street at key locations. They also remind drivers of the presence of pedestrians. The presence of adult crossing guards can lead to more parents feeling comfortable about their children walking or bicycling to school. While the primary role of an adult school crossing guard is to guide children safely across the street, children also remain responsible for their own safety. In this respect, a guard plays another key function—a role model who helps children develop the skills necessary to cross streets safely at all times.

The design and implementation of an adult school crossing guard program is largely the decision of local communities. Some federal guidance exists, and there are some state and local requirements pertaining to the operation of guard programs, but these vary across the country. Ideally, the development of an adult school crossing guard program involves a community partnership that includes the expertise of law enforcement agencies, traffic engineering or planning departments, and school systems. Working together with parents, this community group identifies the locations where adult school crossing guards are needed and the appropriate number of guards for each location. The group establishes crossing procedures for a variety of traffic situations, hires, trains and equips the guards, and secures long-term funding for the program.

**Resources:**

For guidance on implementing a school crossing guard program, see the [Adult Crossing Guard Guidelines](#) [PDF],<sup>251</sup> developed by the National Center for Safe Routes to School.

**WFC Examples:**

The [Child Safety Program](#)<sup>252</sup> in **Austin, TX**, was responsible for hiring and supervising more than 175 crossing guards at 154 locations near, or in front of, 67 schools.

<sup>249</sup> [http://safety.fhwa.dot.gov/ped\\_bike/ped\\_focus/docs/fhwasa0512.pdf](http://safety.fhwa.dot.gov/ped_bike/ped_focus/docs/fhwasa0512.pdf)

<sup>250</sup> <http://www.seattle.gov/police/programs/redlight.htm>

<sup>251</sup> [http://www.saferoutesinfo.org/guide/crossing\\_guard/pdf/crossing\\_guard\\_guidelines\\_web.pdf](http://www.saferoutesinfo.org/guide/crossing_guard/pdf/crossing_guard_guidelines_web.pdf)

<sup>252</sup> <http://www.austintexas.gov/department/child-safety-program>

Bronze-level **Northampton, MA**, [employs crossing guards](#)<sup>253</sup> at all of the community's elementary and middle schools. Crossing guard is a paid position and all guards are trained and supervised during their first week on the job by the school resource officer. Signs, vests, and gloves are provided by the school.

## 5 Department Cooperation

<b>Do police work regularly with traffic engineers and planners to review sites in need of safety improvement for motorists and pedestrians?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Describe:</b> <a href="#">Click here to enter text.</a>	
<b>Does your community use crash and/or fatality data to identify problem areas and potential solutions?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Describe:</b> <a href="#">Click here to enter text.</a>	
<b>Does your community use a Data-Driven Approach to Crime and Traffic Safety (DDACTS) to understand the overlap between high-crime areas and traffic safety concerns?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If so, describe any DDACTS training you have undertaken and/or the process you use to prioritize traffic safety in relation to other police interests:</b> <a href="#">Click here to enter text.</a>	

### Rationale:

Some communities target enforcement in areas where there is a known safety problem. This can be an effective strategy if the safety problem is caused by pedestrian or driver behavior. Unlike vehicle crashes, crash rates for pedestrians are typically not used, since pedestrian volumes are usually not known. Instead, high pedestrian crash locations, corridors, and targeted areas should be initially identified by comparing the total number of pedestrian crashes.

Improving pedestrian safety in a community or region is typically the result of implementing different safety treatments and changing agency design policies. Crash countermeasures, or treatments intended to address pedestrian safety concerns, can take several forms: operational and construction projects intended to fix specific problems; changes in design guidelines to help improve streets and intersections in future projects; and education and enforcement programs aimed at achieving changes in motorist and pedestrian behavior or attitude. By partnering with engineers, law enforcement officers can help identify and improve pedestrian safety problems. Addressing pedestrian safety is an interdisciplinary undertaking that will require communication among agencies.

### Resources:

Learn more about [developing partnerships with law enforcement](#)<sup>254</sup> and other diverse [people and agencies](#)<sup>255</sup> to address pedestrian safety issues.

See Chapter 4 in [How to Develop a Pedestrian Safety Action Plan](#) [PDF]<sup>256</sup> for more information on selecting areas for targeted enforcement and other safety countermeasures. For example, Oakland, CA, (page 27) and Miami-Dade, FL, (page 29) are using crash data to identify potential traffic improvements.

<sup>253</sup> <http://www.walkfriendly.org/assessment/fileupload/CrossingGuard.pdf>

<sup>254</sup> [http://www.pedbikeinfo.org/programs/enforcement\\_worklawenforce.cfm](http://www.pedbikeinfo.org/programs/enforcement_worklawenforce.cfm)

<sup>255</sup> <http://www.pedbikeinfo.org/community/whocanhelp.cfm>

<sup>256</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=229>

See also Chapter 8 in [Countermeasures that Work](#) [PDF].<sup>257</sup>

[Data-Driven Approaches to Crime and Traffic Safety](#)<sup>258</sup> (DDACTS) integrates location-based crime and traffic crash data to determine the most effective methods for deploying law enforcement and other resources. Drawing on the deterrent value of highly visible traffic enforcement and the knowledge that crimes often involve motor vehicles, the goal of DDACTS is to reduce crime, crashes, and traffic violations.

**WFC Example:**

In 2007, **Seattle** formed a special traffic unit called the [Aggressive Driver Response Team \(ADRT\)](#)<sup>259</sup> to target aggressive and dangerous drivers in corridors with well-documented traffic safety issues.

In Bronze-level **Gainesville, FL**, the police department speaks or meets once a week with city traffic engineers, which helps both agencies identify problem areas and potential solutions. The police department has started using a version of DDACTS to help utilize more Traffic Units in high crime areas. Targeted responses are developed through monthly meetings between Traffic Units, Operation, and detectives.

**6 Other Enforcement**

**Please describe any other ways that your community’s police department addresses the pedestrian concerns in your community.**

[Click here to enter text.](#)

<sup>257</sup> [http://ntl.bts.gov/lib/32000/32300/32356/6626\\_Countermeasures\\_01-06-10-v1.pdf](http://ntl.bts.gov/lib/32000/32300/32356/6626_Countermeasures_01-06-10-v1.pdf)

<sup>258</sup> <http://www.nhtsa.gov/Driving+Safety/Enforcement+&+Justice+Services/Data-Driven+Approaches+to+Crime+and+Traffic+Safety+%28DDACTS%29>

<sup>259</sup> <https://www.seattle.gov/police/traffic/ADRT.htm>

# EVALUATION

By incorporating planning, education, encouragement, engineering, and enforcement countermeasures, a community can have a direct impact on pedestrian safety and walkability. Evaluation of the pedestrian environment and behavior plays a crucial role in problem identification and countermeasure selection. In order to truly understand local pedestrian needs and safety issues, a community should utilize effective evaluation strategies.

## 1 Pedestrian Counts/Surveys

<b>Does your community have an ongoing pedestrian counting and/or survey program that allows for long-term trend analysis of walking trips?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Please describe (including when the program began, frequency of counts, number of sites, counter/surveyor training or recruitment, etc.):</b> Click here to enter text.	

### Rationale:

While surveys such as the Census, the National Household Travel Survey, and the National Survey of Pedestrian and Bicyclist Attitudes and Behaviors can shed some light on national mode share and travel behavior, they do not necessarily reflect local trends. The best way to estimate the numbers of people who walk in a particular city or town is to conduct frequent, comprehensive pedestrian counts. Local counts allow municipalities to understand where, when, and how often people are walking in a community. This can help when determining how to prioritize walking improvements; walk counts can also help communities evaluate if infrastructure treatments or other programs have affected walking volumes.

### Resources:

The Federal Highway Administration document [Pedestrian and Bicycle Data Collection Systems in United States Communities](#) [PDF]<sup>260</sup> describes how communities across the country are conducting walking counts.

Arizona's use of pedestrian surveys to gather information is described on page 33 of [How to Develop a Pedestrian Safety Action Plan](#) [PDF].<sup>261</sup>

[The National Bicycle and Pedestrian Documentation Project](#),<sup>262</sup> co-sponsored by Alta Planning + Design and the Institute of Transportation Engineers Bicycle and Pedestrian Documentation Committee, has created a model for collecting bicycle and pedestrian data in the hopes of collecting more accurate measures of use and demand of pedestrian and bicycle facilities.

### WFC Example:

[Pedestrian counts](#)<sup>263</sup> in **Minneapolis, MN**, helped the city evaluate the success of the [Nonmotorized Transportation Pilot Program](#).<sup>264</sup>

<sup>260</sup> [http://www.pedbikeinfo.org/pdf/PlanDesign\\_Tools\\_FHWACaseStudies.pdf](http://www.pedbikeinfo.org/pdf/PlanDesign_Tools_FHWACaseStudies.pdf)

<sup>261</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=229>

<sup>262</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=4313>

<sup>263</sup> <http://www.minneapolismn.gov/pedestrian/data/pedcounts>

<sup>264</sup> [http://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/ntpp/2012\\_report/page01.cfm](http://www.fhwa.dot.gov/environment/bicycle_pedestrian/ntpp/2012_report/page01.cfm)

A number of other WFCs, including [Santa Barbara, CA](#), [PDF]<sup>265</sup> [Minneapolis, MN](#)<sup>266</sup>, and [Seattle, WA](#),<sup>267</sup> also conduct pedestrian counts.

In Bronze-level **Austin, TX**, the Child Safety Program conducts pedestrian counts around schools to evaluate programmatic and infrastructure needs.

Silver-level Long Beach, CA, has an [annual bicycle and pedestrian census](#)<sup>268</sup> that incorporates over 30 locations across the city.

## 2 Evaluation of Pedestrian Areas

**Has your community used any of the following tools to evaluate major pedestrian areas (town centers, major activity areas, routes to school, etc.) in order to identify problem areas and potential solutions?**

<b>Walkability Checklists</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
Please describe when and where used: <a href="#">Click here to enter text.</a>	
<b>Pedestrian Intersection Safety Index</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
Please describe when and where used: <a href="#">Click here to enter text.</a>	
<b>Pedestrian Level of Service (LOS) tools</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
Please describe when and where used: <a href="#">Click here to enter text.</a>	
<b>Pedestrian Road Safety Audit Guidelines and Prompt Lists or other audit instruments</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
Please describe when and where used: <a href="#">Click here to enter text.</a>	
<b>Health Impact Assessments</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
Please describe when and where used: <a href="#">Click here to enter text.</a>	
<b>Smart Growth Scorecards</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
Please describe when and where used: <a href="#">Click here to enter text.</a>	
<b>Web-based or smartphone applications for resident feedback and input</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
Please describe applications: <a href="#">Click here to enter text.</a>	
<b>Other Evaluation Tools</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
Please describe: <a href="#">Click here to enter text.</a>	

### Rationale:

Audits can help with pre/post evaluation of a particular roadway or traffic calming project. They should be conducted on a regular basis by a team of agency representatives to identify pedestrian problems and countermeasures/solutions. It is very important that the audit team is comprised of individuals with diverse

<sup>265</sup> <http://www.santabarbaraca.gov/civicax/filebank/blobdload.aspx?blobid=16528>

<sup>266</sup> <http://www.minneapolismn.gov/pedestrian/data/pedcounts>

<sup>267</sup> <http://downtownseattle.com/Resources/PedestrianCounts>

<sup>268</sup> <http://www.everythinglongbeach.com/call-for-volunteers%E2%80%93bike-count/>

backgrounds (such as engineering, planning, health, and law enforcement) to ensure that the audit will be comprehensive in nature and that the necessary solutions can be implemented.

### Resources:

A [walkability checklist](#)<sup>269</sup> is a quick way to determine if your neighborhood has any major safety concerns for pedestrians.

[The Pedestrian and Bicyclist Intersection Safety Indices](#)<sup>270</sup> can help users identify the intersections that most merit pedestrian safety improvements.

The [Pedestrian Road Safety Audit Guidelines and Prompt Lists](#)<sup>271</sup> are intended to provide guidance for independent audit teams that are assessing pedestrian safety on particular roadways.

[Smart growth scorecards](#)<sup>272</sup> can help your community choose the best tools to make growth and development benefit everyone. They can also help you measure your community's progress towards the best possible future.

[Health Impact Assessments](#)<sup>273</sup> (HIAs) predict the health effects that a project will have prior to implementation. Conducting a health impact assessment can bring new information to light about costs and benefits that may not have been previously considered. This [webinar](#) from the PBIC Livable Communities Series discusses how HIAs can be used in the decision-making process.

### WFC examples:

**Flagstaff, AZ's** efforts to supplement Journey to Work data with meaningful local data led to the development of the [Flagstaff Trip Diary Survey](#).<sup>274</sup> Through this, the city showed that over 13 percent of all trips were walking and 9 percent were bicycling.

**Corvallis, OR, and Wilsonville, OR,** have both used the [National Citizen Survey \(NCS\)](#)<sup>275</sup> in order to compare quality of life, local government services, and community characteristics in their cities to other cities across the U.S. Questions about the public's attitude towards walking have provided useful information for planning, measuring performance, and evaluating programs and policies.

**Philadelphia, PA,** conducted a [Health Impact Assessment](#)<sup>276</sup> to explore the effect that its proposed Lower South District Plan would have on health-related factors, such as transportation mode, air quality, physical activity, land use, and access to services.

Silver-level **Decatur, GA,** completed a [rapid Health Impact Assessment on the City's transportation plan](#) [PDF]<sup>277</sup> in 2007, which exposed the community and politicians to the positive impacts of multi-modal transportation in Decatur.

The HIA process also applies to small, rural towns: The [Davidson Design for Life \(DD4L\) Committee](#)<sup>278</sup> completed an HIA detailing the potential health impacts of the existing street design standards in Bronze-level **Davidson, NC.** The findings were also used to propose recommendations for the rewrite of the town's Planning Ordinance.

## 3 Pre-Post Evaluations

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<sup>269</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=12>

<sup>270</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=2802>

<sup>271</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=3955>

<sup>272</sup> <https://www.epa.gov/smartgrowth/smart-growth-scorecards>

<sup>273</sup> <http://www.cdc.gov/healthyplaces/hia.htm>

<sup>274</sup> <http://flagstaff.az.gov/DocumentView.aspx?DID=6402>

<sup>275</sup> <http://www.n-r-c.com/survey-products/the-national-citizen-survey/>

<sup>276</sup> <http://phila2035.org/lower-south-hia-completed/>

<sup>277</sup> <http://www.smartgrowthamerica.org/documents/cs/impl/ga-decatur-hia.pdf>

<sup>278</sup> <http://www.townofdavidson.org/1047/Davidson-Design-for-Life/>

<b>Does your community routinely conduct pre/post evaluations of road projects and traffic calming with respect to pedestrian crashes, volumes and motor vehicle speeds?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Please explain when this is typically done and provide a recent example:</b> Click here to enter text.	

**Rationale:**

While agencies often evaluate the impact of a project or development on auto traffic with a traffic impact assessment, other modes may not be considered. Road projects of any size can have serious implications for pedestrians; your community should include them in any assessment.

**Resources:**

The Federal Highway Administration’s [Pedestrian Road Safety Audit Guidelines and Prompt Lists](#)<sup>279</sup> can help plan for and evaluate pedestrian safety of particular infrastructure projects.

**WFC Examples**

**4 Walk Score**

Using [Walk Score](#),<sup>280</sup> please provide the following information:

	<b>Walk Score</b>
<b>City Hall Walk Score</b> (type the address into the search bar)	Click here to enter text.
<b>City Hall Transit Score</b> (scroll down on the results page to see the Transit Score)	Click here to enter text.
<b>Top 10% Walk Score for your community</b> (located at the bottom of the web page)	Click here to enter text.
<b>Average Walk Score for your community</b> (type the community name into the search bar)	Click here to enter text.

<b>Please provide the Overall Sprawl Score for your community’s metropolitan region:</b>	Click here to enter text.
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**Rationale:**

Walk Score will give a community a sense of its development density and the diversity of land uses, which can roughly translate into walkability. While Walk Score analysis does not include pedestrian infrastructure or pedestrian safety in its analysis, the scores from places around town can indicate whether development and land use patterns in a community support walking. A mix of land uses brings many other benefits in addition to creating a more walk friendly place. CEOs for Cities’ [Walking the Walk study](#) (2009)<sup>281</sup> found that

<sup>279</sup> <http://www.pedbikeinfo.org/data/library/details.cfm?id=3955>

<sup>280</sup> <http://www.walkscore.com/>

<sup>281</sup> [https://www.researchgate.net/publication/233023064\\_Walking\\_the\\_Walk\\_A\\_Phenomenological\\_Study\\_of\\_Long\\_Distance\\_Walking](https://www.researchgate.net/publication/233023064_Walking_the_Walk_A_Phenomenological_Study_of_Long_Distance_Walking)

in the typical metropolitan area, a one-point increase in Walk Score was associated with an increase in value ranging from \$700 to \$3,000 depending on the market.

**Resources:**

[Walk Score](http://www.walkscore.com)<sup>282</sup> is a website that calculates how walkable a geographic area is based on the variety and number of destinations, such as grocery stores, schools, and parks that are within walking distance.

Smart Growth America's 2014 report, [Measuring Sprawl 2014](http://www.smartgrowthamerica.org/documents/measuring-sprawl-2014.pdf),<sup>283</sup> evaluated metropolitan sprawl based on residential density, neighborhood mix of uses, strength of activity centers and downtowns, and accessibility of the street network.

## 5 Other Evaluation

**Please describe any other ways that your community evaluates pedestrian accommodation, walking rates, and pedestrian safety.**

[Click here to enter text.](#)

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<sup>282</sup> <http://www.walkscore.com>

<sup>283</sup> <http://www.smartgrowthamerica.org/documents/measuring-sprawl-2014.pdf>

## ADDITIONAL QUESTIONS

1

**What are the three primary reasons your city deserves to be designated as a Walk Friendly Community?**

[Click here to enter text.](#)

2

**What are the three aspects of your community most in need of improvement in order to accommodate pedestrians?**

[Click here to enter text.](#)

3

**How can your community leverage its designation as a Walk Friendly Community to increase the number of people walking and make walking safer?**

[Click here to enter text.](#)