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Appendix C

Bike and Walk Friendly Community Applications

LEAGUE OF AMERICAN BICYCLISTS

Bicycle Friendly Community Application

Name of Community

* Name of Community

* State

* Mayor or top elected official
include title

* Phone

* Email

* Address

* Website

Applicant Profile

* Applicant Name

* Title

* Employer

* Address

* City

* State

* Zip

* Phone

* Email

Community Profile

The data in this section is gathered by the U.S. census. Click here to find the most recent information on your community.

* 1. Type of Jurisdiction
Check One

- **Town/City/Municipality**
- **County**
- **Metropolitan Planning Organization or Council of Governments**
- **Regional Planning Organization**
- **Rural Planning Organization**
- **Indian Nation**
- **Other**

If other, describe
(50 word limit)

* 2. Population
Enter a positive whole number, 1 or larger

3. Square milage of community

* Total area
(sq. mi.)

* Water area
(sq. mi.)

* Land area
(sq. mi.)

* 4. Population Density
(Person per sq. mi.)

5. Climate

* Average temperature for January
in °F

* Average temperature for April
in °F

* Average temperature for July
in °F

* Average temperature for October
in °F

* Average precipitation for January
in inches

* Average precipitation for April
in inches

* Average precipitation for July
in inches

* Average precipitation for October
in inches

* 6. Median Household Income
Enter a whole number, 0 or larger

7. Age distribution

* % under 5

* % age 6-17

* % age 18-64

* % age 65+

* Totals
Total should equal 100

8. Race

* % White

* % Black or African American

* % American Indian and Alask Native

* % Asian

* % Native Hawaiian and Other Pacific Islander

* % Some other race

* % One race

* % Two or more races

* Totals
Total should equal 100

* % Hispanic or Latino (of any race)

* 9. What is the name of your community's bicycle program manager?

* 10. In which department does your bicycle program manager work?
- **Engineering/public works**
- **Planning**
- **Parks and Recreation**
- **Transportation**
- **Other**

If other, describe
(50 word limit)

* 11. Are you the Bicycle Program Manager?
- **Yes**
- **No**

* Bicycle Program Manager Phone

* Bicycle Program Manager Email

* 12. What percentage of the community's Bicycle Program Manager's time is spent on bicycling issues?
- **10% or less**
- **10-25%**
- **25-50%**
- **50-75%**
- **75-100%**

* 13. How many government employees, expressed in full-time equivalents, work on bicycle issues in your community?
Enter a positive whole number, 1 or larger

* 14. Do you have a Bicycle Advisory Committee
- **Yes**
- **No**

* 14a. How often does it meet?
- **Monthly**
- **Every two months**
- **Quarterly**
- **Annually**
- **Other (describe)**

If other, describe
(250 word limit)

* 14b. How many members serve on the committee?
Enter a positive whole number, 1 or larger

* 14c. Which of the following groups are represented or regularly attend the Bicycle Advisory Committee?
Check all that apply

- ☐ **User group**
- ☐ **Law enforcement**
- ☐ **Chamber of commerce**
- ☐ **Public health**
- ☐ **Planning department**
- ☐ **Transporation department**
- ☐ **School board**
- ☐ **Parks department**
- ☐ **Recreation department**
- ☐ **Transit agency**
- ☐ **Other (describe)**

If other, describe
(250 word limit)

* 14d. Name of Bicycle Advisory Committee Chair

* Email of Bicycle Advisory Committee Chair
e.g. myname@example.com

* 15. Is there a bicycle advocacy group(s) in your community?
- ○ **Yes**
- ○ **No**

15a. What is the name of the advocacy group(s) (if more than one, list them all)
(250 word limit)

* 15b. Are any of them working with you on this application?
- ○ **Yes**
- ○ **No**

* 15c. List the name of the primary group:

* 15d. Does this group have paid staff?
- ○ **Yes**
- ○ **No**

* 15e. Do you contract with this group for any services or programs?
- ○ **Yes**

- ( ) **No**

* 15f. Who is the primary contact for them?

* 15g. Email of primary contact of advocacy group
e.g. myname@example.com

* 16. What are the primary reasons your community has invested in bicycling?
check all that apply

- [ ] **Improved quality of life**
- [ ] **Improving public health**
- [ ] **Community connectivity**
- [ ] **Transportation options**
- [ ] **Climate change concerns**
- [ ] **Decrease traffic congestion**
- [ ] **Increase tourism**
- [ ] **Increase property values**
- [ ] **Cooperation with adjacent communities**
- [ ] **Public demand**
- [ ] **Economic development**
- [ ] **Traffic safety**
- [ ] **Other (describe)**

If other, describe
(250 word limit)

17. What was your community's most significant investment for bicycling in the past year?
(100 word limit)

18. What specific improvements do you have planned for bicycling in the following year?
(100 word limit)

Engineering

19. Does your community have

- ◯ **a complete streets policy?**
- ◯ **a bicycle accomodation policy (a policy that requires the accommodation of cyclists in all new road construction and reconstruction and resurfacing)?**
- ◯ **Neither**

19a. When was it adopted

19b. Provide a link or attach a copy of this legislation or policy.
(250 word limit)

19c. How was it adopted?

- ◯ **Legislation**
- ◯ **Resolution**
- ◯ **Internal Policy**
- ◯ **Other**

If other, describe
(250 word limit)

19d. What tools are in place to ensure implementation?
Check all that apply

- ☐ **Implementation Guidance**
- ☐ **Design**
- ☐ **Manual**
- ☐ **Training**
- ☐ **Other**

If other, describe
(500 word limit)

20. How do you ensure your engineers and planners accommodate cyclists according to AASHTO and MUTCD standards?
Check all that apply

- ☐ **Training**
- ☐ **Offer FHWA/NHI Training Course**
- ☐ **Hire Outside consultants to train staff**
- ☐ **Send staff to bicycle-specific conferences/training**
- ☐ **Require project consultants to have bike/ped qualifications**

- [ ] **Internal training or design manual**

20a. Describe each checked
(200 word limit)

* 21. What percentage of bridges and tunnels in your community are accessible to bicyclists?
Enter a whole number, 0 or larger

21a. What are the exceptions?
(500 word limit)

* 22. How do you ensure there are end-of-trip facilities for bicyclists?
Check all that apply

- [ ] **Bike parking ordinance**
- [ ] **Bike parking ordinance for all new developments**
- [ ] **Ordinance requiring showers and lockers**
- [ ] **Building accessibility ordinance**
- [ ] **On street bike parking**
- [ ] **Ordinance that allows bike parking to substitute for car parking**
- [ ] **Standards for bicycle parking that conform to APBP guidelines**
- [ ] **Other**

If other, describe
(500 word limit)

23. How many bike parking spaces are there in your community?
Answer all that apply

23a. Bike racks
Enter a whole number, 0 or larger

23b. Bike lockers
Enter a whole number, 0 or larger

23c. Bike depot (i.e. Bikestation)
Enter a whole number, 0 or larger

23d. In-street bike parking
Enter a whole number, 0 or larger

24. Approximately what percentage of these locations have bike racks or storage units?

24a. Schools

24b. Libraries

24c. Transit Stations

24d. Parks & Recreation Centers

24e. Government buildings

24f. Office buildings

24g. Shops

24h. Public Housing

* 25. Does your community have transit service?
- **Yes**
- **No**

* 25a. Are buses equipped with bike racks?
- **Yes**
- **No**

25b. What percentage?

25c. Are bikes allowed inside transit vehicles?
- **Yes**
- **Sometimes**
- **No**

If yes or sometimes, describe
(100 word limit)

* 26. What is the mileage of your total road network?
Enter a whole number, 0 or larger

* 27. What is the mileage of your total shared-use path network?
Enter a whole number, 0 or larger

28. List your current and planned bicycle accommodations?

Complete all that apply

a. Bike lanes

Current
Enter a whole number, 0 or larger

Planned
Enter a whole number, 0 or larger

b. Shared lane markings

Current
Enter a whole number, 0 or larger

Planned
Enter a whole number, 0 or larger

c. Bike boulevards

Current
Enter a whole number, 0 or larger

Planned
Enter a whole number, 0 or larger

d. Signed bike routes

Current
Enter a whole number, 0 or larger

Planned
Enter a whole number, 0 or larger

e. Paved shared use paths

Current
Enter a whole number, 0 or larger

Planned
Enter a whole number, 0 or larger

f. Natural surface shared use paths

Current
Enter a whole number, 0 or larger

Planned
Enter a whole number, 0 or larger

g. Singletrack

Current
Enter a whole number, 0 or larger

Planned
Enter a whole number, 0 or larger

* 29. What other innovative ways have you improved on-road conditions for bicyclists?
Check all that apply

☐ **Road diets**

- [ ] **Area wide traffic calming**
- [ ] **Cycle tracks**
- [ ] **Contra-flow bike lanes**
- [ ] **Speed limits 20 mph or less on residential streets**
- [ ] **Bike cut thrus**
- [ ] **Way-finding signage with distance and/or time information**
- [ ] **None**
- [ ] **Other**

If other, describe
(500 word limit)

* 30. What percentage of arterial streets have bike lanes or paved shoulders?
Enter a whole number, 0 or larger

* 31. What percentage of natural surface, trails and singletrack are open to bicyclists?
Enter a whole number, 0 or larger

31a. What are the exceptions?
(500 word limit)

32. What maintenance policies or programs ensure *bike lanes* and *shoulders* remain usable and safe?
Answer all that apply

* 32a. Street sweeping
- ○ **Before other travel lanes**
- ○ **Same time as other travel lanes**
- ○ **Weekly**
- ○ **Monthly**
- ○ **Quarterly**
- ○ **Annually**
- ○ **Never**
- ○ **Other**

If other, describe
(250 word limit)

* 32b. Snow clearance
- ○ **Before other travel lanes**

- **Same time as other travel lanes**
- **Within 48 hours of storm**
- **Never**
- **Other**
- **Not applicable**

If other, describe
(500 word limit)

* 32c. Pothole maintenance
- **Within 24 hours of complaint**
- **Within one week of complaint**
- **Within one month of complaint**
- **Never**
- **Other**

If other, describe
(500 word limit)

32d. Other Maintenance policies or programs for bike lanes and shoulders (describe)
(500 word limit)

33. What maintenance policies or programs ensure *shared-use paths* remain safe and usable?
Answer all that apply

* 33a. Path sweeping
- **Weekly**
- **Monthly**
- **Quarterly**
- **Annually**
- **Never**
- **Other**

If other, describe
(250 word limit)

* 33b. Vegetation maintenance
- **Weekly**
- **Monthly**
- **Quarterly**
- **Annually**

- **Never**
- **Other**

If other, describe
(250 word limit)

* 33c. Snow clearance
- **Before roadways**
- **Same time as roadways**
- **Within 48 hours of storm**
- **Never**
- **Other**
- **Not applicable**

If other, describe
(250 word limit)

* 33d. Surface repair
- **Within 24 hours of complaint**
- **Within one week of complaint**
- **Within one month of complaint**
- **Never**
- **Other**

If other, describe
(500 word limit)

33e. Other Maintenance policies or programs for shared-use paths (describe)
(500 word limit)

* 34. How do you accommodate cyclists at intersections in your community?
Check all that apply

- ☐ **All /Most signals are timed for bicyclists**
- ☐ **All /Most signals are timed**
- ☐ **Loop detector markings**
- ☐ **Video detection**
- ☐ **Advance stop line or Bike Box**

- [ ] **Bicycle signal heads**
- [ ] **Other**
- [ ] **None of the above**

If other, describe
(500 word limit)

* 35. Are there other infrastructure improvements in your community to promote bicycling?

- ( ) **Yes**
- ( ) **No**

If yes, describe
(500 word limit)

Education

* 36. Do schools in your community offer a Safe Routes to School (or comparable) program that includes bicycling education?

- ( ) **Yes**
- ( ) **No**

What percentage of schools in your jurisdiction participates?

a. Elementary (percentage)
Enter a whole number, 0 or larger

b. Middle School (percentage)
Enter a whole number, 0 or larger

c. High School (percentage)
Enter a whole number, 0 or larger

* 37. Outside of schools, how are children taught safe bicycling skills?
Check all that apply

- [ ] **Youth bike clubs**
- [ ] **Bike clinics or rodeos**
- [ ] **Youth recreation programs**
- [ ] **Helmet fit seminars**
- [ ] **Safety town**
- [ ] **Trail riding classes**
- [ ] **Other**
- [ ] **None of the above**

If other, describe
(500 word limit)

* 38. Do you have a diversion program for cyclists or motorists?
- **Yes**
- **No**

If yes, describe
(500 word limit)

* 39. What have you done in the last 18 months to educate motorists and bicyclists on sharing the road safely?
Check all that apply

- **Public service announcements**
- **Community newsletter article**
- **New resident packet**
- **Utility bill insert**
- **Bicycle ambassador program**
- **Newspaper column/blog on bicycling**
- **Dedicated bike page on community Web site**
- **Billboards**
- **Share the Road Signs**
- **Share the road information in driver's education**
- **Other**
- **None of the above**

If other, describe
(500 word limit)

40. What of the following options are available on a regular basis to your community?

* 40a. Traffic Skills 101 (or equivalent) classes -- including classroom and on-bike instruction.
- **Weekly**
- **Monthly**
- **Quarterly**
- **Annually**
- **Never**
- **Other**

If other, describe
(250 word limit)

* 40b. Cycling Skills classes -- three to four hour classroom training courses
- **Weekly**
- **Monthly**
- **Quarterly**
- **Annually**
- **Never**
- **Other**

If other, describe
(250 word limit)

* 40c. Commuter classes - one/two hour classes
- **Weekly**
- **Monthly**
- **Quarterly**
- **Annually**
- **Never**
- **Other**

If other, describe
(250 word limit)

* 41. Has your community hosted a League Cycling Instructor seminar in the past two years?
- **Yes**
- **No**

* 42. How many League Cycling Instructors are there in your community?
Enter a whole number, 0 or larger

43. List active League Cycling Instructors (active means they have taught at least one class during the past 12 months).
(500 word limit)

44. Does your community have driver training for any of the following professional drivers that include information on sharing the road with cyclists?
Check all that apply

- [ ] **City staff**

- ☐ **Taxi drivers**
- ☐ **Transit operators**
- ☐ **School bus operators**
- ☐ **Delivery drivers**
- ☐ **Other**

* If other, describe
(250 word limit)

* 44a. If yes to any of the above, describe the program.
(500 word limit)

* 45. Describe any efforts your community has made to ensure your education programs reach traditionally underserved populations.
(500 word limit)

* 46. Are there other education efforts in your community to promote bicycling?
- ○ **Yes**
- ○ **No**

* 46a. If yes, describe
(1000 word limit)

Encouragement

* 47. How do you promote National Bike Month?
Check all that apply
- ☐ **City Proclamation**
- ☐ **Community Ride**
- ☐ **Mayor-led Ride**
- ☐ **Public Service Announcements**
- ☐ **Publish a guide to Bike Month Events**
- ☐ **Bike Month Web site**

- ☐ **Commuter Challenge**
- ☐ **Commuter Breakfasts**
- ☐ **Trail construction or maintenance day**
- ☐ **Other**
- ☐ **No promotion**

* If other, describe
(1000 word limit)

* 48. How many people participate in Bike Month events?
Enter a whole number, 0 or larger

* 49. How do you promote bicycling outside of National Bike Month?
Check all that apply

- ☐ **Community Ride**
- ☐ **Mayor-led Ride**
- ☐ **Public Service Announcements**
- ☐ **Trail construction or maintenance day**
- ☐ **Summer Streets/Ciclovia/Sunday Parkways**
- ☐ **Commuter Challenge**
- ☐ **Commuter Breakfasts**
- ☐ **Other**
- ☐ **No promotion**

* If other, describe
(500 word limit)

* 50. Do you actively promote Bike to Work Day or other bicycle commuting incentive programs?

- ○ **Yes**
- ○ **No**

* 50a. If yes, describe
(500 word limit)

* 50b. Approximately what percentage of the community workforce do you reach?

* 51. List the signature cycling events in your community?
(500 word limit)

* 52. Does the municipality sponsor or actively support any of these rides?
- **Yes**
- **No**

* 52a. If yes, how?
(500 word limit)

* 53. Does your local tourism board promote bicycling in your area?
- **Yes**
- **No**

* 53a. If yes, how?
(500 word limit)

* 54. Are there cycling organizations in your area?
Check all that apply

- ☐ **Recreational Bike Clubs**
- ☐ **Mountain Bike Clubs**
- ☐ **Friends of the Trail Groups**
- ☐ **National Mountain Bike Patrol**
- ☐ **Racing Clubs or Teams**
- ☐ **Bicycle Co-ops**
- ☐ **Other**
- ☐ **None**

* If other, describe.
(500 word limit)

* 54a. For each type of club checked, list names of the organizations.
(500 word limit)

* 55. How many specialty bicycle retailers (i.e shops dedicated primarily to selling bikes and bike-related equipment) are there in your community?
Enter a whole number, 0 or larger

* 55a. List their names.
(500 word limit)

* 56. Which of these bicycling areas or facilities do you have in your community?
Check all that apply

- ☐ **BMX track**
- ☐ **Velodrome**
- ☐ **Cyclocross course**
- ☐ **Mountain bike park**
- ☐ **Pump Tracks**
- ☐ **Other**
- ☐ **None**

* If other, describe.
(500 word limit)

* 57. Is there a skatepark in your community?
- ○ **Yes**
- ○ **No**

* 57a. If yes, do bikes have access to the skatepark?
- ○ **Always**
- ○ **Sometimes**
- ○ **Never**

* 58. Are there opportunities to rent bicycles in your community?
- ○ **Yes**
- ○ **No**

* 59. Does your community have a bike sharing program?
- ○ **Yes**
- ○ **No**

59a. If yes, of what use is it?
Check all that apply

- ☐ **Public use**

☐ **Other**

* If other, describe
(500 word limit)

* 60. Do you have any current Bicycle Friendly Businesses in your community?

○ **Yes**

○ **No**

* 60a. If yes, list the names of the businesses.
(500 word limit)

* 61. Does your community have youth recreation and/or intervention programs centered around bicycling?
Check all that apply

☐ **Recycle a Bicycle**

☐ **Trips for Kids chapter**

☐ **Earn a Bike program**

☐ **Co-op or Community Cycling Center**

☐ **Other**

☐ **None**

* If other, describe
(500 word limit)

* 62. What mapping and route finding information is available for your community which has been updated in the last 18 months?
Check all that apply

☐ **Online route finding service**

☐ **Online map**

☐ **Printed on-road bike-routes map**

☐ **Printed mountain bike trails map**

☐ **Other**

☐ **None available**

* If other, describe
(500 word limit)

* 63. Does your community have other programs or policies to encourage cycling?

- **Yes**
- **No**

* 63a. If yes, describe
(500 word limit)

Enforcement

* 64. How does your police department interact with the local cycling community?
Check all that apply

- [ ] **A police officer is an active member of bicycle advisory committee**
- [ ] **Identified law-enforcement point person to interact with cyclists**
- [ ] **No current formal interaction**
- [ ] **Other**

* If other, describe
(500 word limit)

* 65. What kind of training is offered to police officers regarding traffic law as it applies to bicyclists?
Check all that apply

- [ ] **Basic academy training**
- [ ] **International Police Mountain Bike Association or Law Enforcement Bicycle Association training**
- [ ] **National Highway Traffic Safety Administration Law Enforcement Training**
- [ ] **Completion of Smart Cycling course by Police**
- [ ] **Presentation by League Cycling Instructor or local cyclist**
- [ ] **Institute for Police Training and Development bicycle training**
- [ ] **Other**
- [ ] **No training currently offered**

* If other, describe
(500 word limit)

* 66. What enforcement campaigns are targeted at improving cyclist safety?
Check all that apply

- ☐ **Helmet/light giveaways**
- ☐ **Targeting motorist infractions**
- ☐ **Targeting cyclist infractions**
- ☐ **Share the road campaigns**
- ☐ **Other**
- ☐ **None of the above**

* If other, describe
(500 word limit)

* 67. Do you have police department employees on bikes?

- ○ **Yes**
- ○ **No**

* 67a. If yes, what percentage of police department employees is on bike?
Enter a whole number, 0 or larger

* 68. Are there any other public safety (e.g. fire department or EMS) employees on bikes?

- ○ **Yes**
- ○ **No**

* 68a. If yes, what percentage of police department employees is on bike?
Enter a whole number, 0 or larger

* 69. Do your local ordinances treat bicyclists equitably? (examples can be found on the BFC resources page).
Check all that apply

- ☐ **There are specific penalties for failing to yield to a cyclist when turning. It is illegal to park or drive in a bike lane (intersections excepted)**
- ☐ **There are penalties for motor vehicle users that 'door' cyclists**
- ☐ **There is a ban on cell phone use while driving.**
- ☐ **There is a ban on texting while driving.**
- ☐ **The community uses photo enforcement for red lights and/or speed**
- ☐ **There is a state or local law that requires cyclists to use sidepaths regardless of their usability.**
- ☐ **There is a state or local law that requires cyclists to use bike lanes where they are provided.**
- ☐ **Cyclists are required to ride as far to the right of the road as practicable without exceptions listed in Uniform Vehicle Code.**
- ☐ **There is a general restriction on bicyclists riding on the sidewalk.**

- ☐ **There are local or school policies that restrict youths from riding to school.**
- ☐ **None of the above**
- ☐ **Additional information on any of the above mentioned ordinances as it pertains to your community.**

* If Additional Information, describe
(500 word limit)

* 70. Are there any additional prohibitions or restrictions on cyclists in your community?
- ○ **Yes**
- ○ **No**

* 70a. If yes, describe
(500 word limit)

* 71. Does your community have other programs or policies to enforce safe cycling?
- ○ **Yes**
- ○ **No**

* 71a. If yes, describe
(100 word limit)

Evaluation and Planning

* 72. What is the most current journey-to-work data for your community? (this percentage can be found in the U.S. Census or the American Community Survey)
Enter a whole number, 0 or larger

* 73. What additional information do you have on bicycle use for your community?
(500 word limit)

* 74. How many cyclist/motor vehicle fatalities have occurred in your community in the past five years?
Enter a whole number, 0 or larger

* 75. How many cyclist/motor vehicle crashes have occurred in your community in the past five years?
Enter a whole number, 0 or larger

* 76. Do you have a specific plan or program to reduce these numbers?
- ○ **Yes**

- No

* 76a. If yes, provide the link to the plan or describe.
(500 word limit)

* 77. Does your community have a bicycle plan?
- **Yes**
- **No**

* 77a. When was it passed or most recently updated?

* 77b. Is there a dedicated funding source for implementation?
- **Yes**
- **No**

* 77c. If yes, describe.
(500 word limit)

* 77d. What percentage of the plan has been implemented?

* 77e. Are you meeting annual target goals for implementation?
- **Yes**
- **No**

* 77f. Provide a link to the plan or describe.
(250 word limit)

* 78. Do you have a trails master plan that addresses mountain bike access?
- **Yes**
- **No**

* 78a. If yes, provide the link to the plan or describe.
(500 word limit)

* 79. Is there formal cooperation between the mountain biking community and the community recreation and planning staff?
- **Yes**
- **No**

* 79a. If yes, describe.
(500 word limit)

* 80. Do you have trip reduction ordinances, policies or programs?
- **Yes**
- **No**

* 80a. If yes, describe.
(500 word limit)

* 81. Have you done an economic impact study on bicycling in your community?
- **Yes**
- **No**

* 81a. If yes, describe.
(500 word limit)

* 82. Do you have a mechanism to ensure facilities, programs and encouragement efforts are implemented in traditionally underserved communities?
- **Yes**
- **No**

* 82a. If yes, describe.
(500 word limit)

* 83. Does your community have other programs or policies to evaluate and/or plan bicycling conditions, programs, and facilities in your community?
- **Yes**
- **No**

* 83a. If yes, describe.
(500 word limit)

Final Overview

84. What are the three primary reasons your community deserves to be designated a Bicycle Friendly Community?

* 84a.
(100 word limit)

* 84b.
(100 word limit)

* 84c.
(100 word limit)

85. What are the three aspects of your community most in need of improvement in order to accommodate bicyclists?

* 85a.
(100 word limit)

* 85b.
(100 word limit)

* 85c.
(100 word limit)

* 86. Are you planning any new projects based on your completion of the Bicycle Friendly Community application?
- **Yes**
- **No**

* 86a. If yes, describe.
(500 word limit)

* 87. Has completing this application made you more aware of what your community needs to do to be bicycle friendly?
- **Yes**

No

* 87a. If yes, describe.
(500 word limit)

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Community Assessment Tool

UPDATED September 1, 2010

Pedestrian and Bicycle Information Center

THE UNIVERSITY OF NORTH CAROLINA HIGHWAY SAFETY RESEARCH CENTER

U.S. Department of Transportation Federal Highway Administration

FedEx®

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INSTRUCTIONS

Purpose of the 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 which have achieved high levels of walking and low rates of pedestrian crashes while also recognizing communities which 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 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. Additionally, 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 jog the applicant's memory, rather than to indicate that any municipality should be implementing all the measures listed. Please answer the questions to the best of your ability.

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.

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. Does 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 connectivety index and land use mix.

COMMUNITY PROFILE

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

1 Contact Information

_____
Name of Community

_____ _____
Mayor or top official (include title) Mayor's Phone

_____ _____
Community Contact Name Position/Employer

_____ _____
Contact Address Address (line 2)

_____ _____ _____
City State Zip

_____ _____ _____
Phone/Fax Email Website

2 Pedestrian Coordinator & Government Staff

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

Contact Person: _____

Contact Person Department: _____

How many hours are spent per year in this capacity? _____

Is this person also the bicycle coordinator? ☐Yes ☐No

List all other government staff or contractors whose primary duties are devoted to walkability and pedestrian safety issues: _____

_____

Do you have a Pedestrian Advisory Committee, Ped/Bike Council or other venue for citizen input?
☐Yes ☐No

If yes, please provide the name of the Chair and their contact information:

_____

_____

Do you have an independent pedestrian advocacy organization? ☐Yes ☐No

If yes, please provide the name and contact information:

_____

3 Community Profile

Population* _____

Area of municipality (sq mi): _____ Population Density: _____

Total area: _____ Park land: _____ Land Area: _____

Climate:	January	April	July	October
Avg. Temperature				
Avg. Precipitation				

Median Household Income*: $ _____

Age Distribution*

% under 20: _____ % age 20-64: _____ % age 65-84: _____ % over 85: _____

Race/Ethnicity (categories based on the U.S. Census)*

% Hispanic or Latino (of any race): _____ % Not Hispanic or Latino: _____

% White: _____ % Black or African-American: _____ % Asian: _____

% American Indian/Alaska Native: _____ % Pacific Islander: _____

% Other: _____ % One race: _____ % Two or more races: _____

*Use U.S. Census data[1] to find demographic and socioeconomic information.

[1] http://factfinder.census.gov/

STATUS OF WALKING

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.

1 According to the 1990 and 2000 Census, what percentage of residents used the following modes for their commute to work?

	1990	2000
Walking		
Bicycling		
Public transit		
Single-occupant vehicles		
Carpool		

Please also provide the latest walking percentage of commuting to work from the most recent 3-year estimates of the American Community Survey. ____%

If your community conducts its own travel counts, please include a link, attachment, or description of those count results:

Web Link: _____

Count Results Description:

_____

Rationale:

Census journey to work data and National Household Travel Survey (NHTS) 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:

Find Census and American Community Survey data here[2] or specific journey to work data here[3].

Other useful travel data comes from the National Household Travel Survey[4] and the National Survey of Pedestrian and Bicyclist Attitudes and Behaviors[5].

See how Cambridge, Massachusetts[6]used Census data to better understand the role of walking 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?

	2005	2006	2007	2008	2009
Number of Pedestrian Motor Vehicle Crashes					
Number of Pedestrian Injuries					
Number of Pedestrian Fatalities					

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:

For more information on finding pedestrian data and statistics, click here.

The National Highway Traffic Safety Administration hosts the Fatality Analysis Reporting System, a database of fatal motor vehicle crashes where users can find specific information about crashes, including those involving pedestrians.

3 What trends, major changes, or significant progress in walking volumes and pedestrian/motor vehicle crashes has your community witnessed over the past 20 years or since it has begun addressing pedestrian issues and concerns in a comprehensive way?

_____

_____

Resources:

See the 15-year status report[7] for trends and changes in bicycling and walking since the 1994 National Bicycling and Walking Study**.**

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[2] http://factfinder.census.gov/
[3] http://www.census.gov/population/www/socdemo/journey.html
[4] http://nhts.ornl.gov/
[5] http://www.bts.gov/programs/omnibus_surveys/targeted_survey/2002_national_survey_of_pedestrian_and_bicyclist_attitudes_and_behaviors/
[6] *Link to pg 34 of PSAP*

PLANNING

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.

1 Has your community adopted a pedestrian plan or pedestrian safety action plan? ☐Yes ☐No

Please provide a link or attachment of the plan.

Link to action plan: _____

If yes…

- **What year was the plan adopted?** _____
- **What performance indicators or other techniques does your community use to monitor completion?**

  _____

  _____

- **Does your community's pedestrian plan or other adopted plan or policy establish a target mode share for walking?** ☐Yes ☐No

  If yes, what is the target walking share? _____
- **Does the plan have a safety goal (such as the reduction in pedestrian crashes)?** ☐Yes ☐No
- **What elements of the plan are complete? (Indicate what percent of the plan is complete, if possible.)** _____

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

[7] http://drusilla.hsrc.unc.edu/cms/downloads/15-year_report.pdf

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.

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. For more information on specific pedestrian planning activities, click here[8].

An international scan team gathered information on European bicycle and pedestrian safety to provide ten recommendations[9] for effective approaches in the U.S.

Click here[10] for examples of local pedestrian plans or here[11] for more about the cost of developing a plan.

For guidelines on creating a safety-focused pedestrian plan, see *How to Develop a Pedestrian Safety Action Plan*[12]. To learn more about what policies can promote non-motorized transportation, refer to this guide.[13]

The cities of Bellevue, Washington[14] and Portland, Oregon[15] have established mode share targets.

New York City addressed specific demographic groups in the creation of the Safe Streets for Seniors[16] plan.

Florida's *Guide for the Review and Assessment of Local Mobility Plans*[17] provides goals and criteria for evaluating plans.

2 Has your community adopted an ADA Transition Plan for the public right of way? ☐Yes ☐No

If so, please provide a link or attachment of the plan: _____

If yes…

- **What year was it adopted? _____**
- **Has the ADA Transition Plan been updated?** ☐Yes ☐No

  If yes, what year? _____
- **Does the ADA Transition Plan address curb ramps and sidewalks?** ☐Yes ☐No **Explain:**

  _____

  _____

[8] http://www.walkinginfo.org/develop/activities.cfm
[9] http://www.international.fhwa.dot.gov/pubs/pl10010/pl10010.pdf
[10] http://www.walkinginfo.org/develop/sample-plans.cfm
[11] http://www.walkinginfo.org/faqs/answer.cfm?id=20
[12] http://drusilla.hsrc.unc.edu/cms/downloads/howtoguide2006.pdf
[13] http://www.walkinginfo.org/faqs/answer.cfm?id=4199
[14] http://www.ci.bellevue.wa.us/pdf/BELL-05-150_ModeShare_MMA_Report_FINAL_7_28_06.pdf
[15] http://www.altaplanning.com/metro+non_sov+mode+share+targets_+portland+_or_+.aspx
[16] http://www.walkinginfo.org/library/details.cfm?id=4553
[17] http://drusilla.hsrc.unc.edu/cms/downloads/FDOT_BDK84_GuideforReviewAssessmentofLocalMobilityPlans.pdf

- **Does the ADA Transition Plan address street crossings and signals?** ☐Yes ☐No

  Explain:

  _____

  _____

- **Who is responsible for the implementation of ADA Transition Plan?**_____

- **Is your transition plan being implemented?** ☐Yes ☐No

  Explain:

  _____

  _____

- **How is the ADA Transition Plan work funded?**

  _____

- **There are state roads in most communities. Has your state DOT adopted an ADA Transition Plan?** ☐Yes ☐No

  Is it being implemented? ☐Yes ☐No

  Explain:

  _____

  _____

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*[18] for a summary of ADA guidelines for curb ramps, sidewalks, and other pedestrian features or click here[19] for the full United States Access Board guidelines. Frequently asked questions about ADA requirements for transportation planners and other public agencies are available here[20].

[18] http://drusilla.hsrc.unc.edu/cms/downloads/Checklist_Accessible_Sidewalks_Crossings.pdf
[19] http://www.access-board.gov/prowac/
[20] http://www.fhwa.dot.gov/civilrights/ada_qa.htm#q11

The Department of Justice guidance ADA Best Practices Tool Kit for State and Local Governments[21] provides technical assistance to with ADA compliance.

For an example of an ADA Transition plan and compliance evaluation, see this report[22] from the City of Bellevue.

For guidance on designing facilities for accessibility see the U.S. Access Board's guide for trails here,[23] the Draft Guidelines for Accessible Public Rights-of-way here,[24] or a special report from the Public Rights of Way Access Advisory Committee called *Accessible Public Rights of Way: Planning and Designing for Alterations*[25].

3 Has your community adopted a Complete Streets policy or ordinance? ☐Yes ☐No **If yes, please provide a link or attachment of the document.**

Link to document: _____

- **Is the Complete Streets Ordinance being implemented and to what degree?**

  ☐Yes ☐No Percent completed: _____

- **Who is responsible for the implementation of the Complete Streets Ordinance?**

  _____

- **How is Complete Streets work funded? (i.e., is it routinely funded as part of the project, funded with other set-aside funds, etc.?)**

  _____

  _____

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:

Click here,[26] here,[27] or here[28] for more information on the Complete Streets movement. See the Seattle Complete Streets Ordinance[29] for a model ordinance or the New York City Complete Streets Design Guidance[30] for information about design guidelines.

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[21] http://www.ada.gov/pcatoolkit/toolkitmain.htm
[22] http://www.bellevuewa.gov/pdf/Transportation/ada_plan_report.pdf
[23] http://www.access-board.gov/outdoor/
[24] http://www.access-board.gov/rowdraft.htm
[25] http://www.access-board.gov/PROWAC/alterations/guide.pdf
[26] http://www.completestreets.org/
[27] http://www.walkinginfo.org/library/details.cfm?id=3968
[28] http://www.fhwa.dot.gov/publications/publicroads/10julaug/03.cfm
[29] 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
[30] http://www.walkinginfo.org/library/details.cfm?id=4585

4 Please briefly describe how public input is used in the municipality's planning process. Mention the role that citizen participation, advisory board review, and/or the municipality's pedestrian/bicycle advisory council play in the process. How do you assure that individuals with disabilities are included in the public input process?

_____

_____

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: _____

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 web sites 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:

Learn about a Pedestrian Safety Planning Group in Bethlehem, New York in this case study.[31]
Read about facilitating public participation[32] and the importance of pedestrian advisory councils.[33]
The Pedestrian and Bicycle Information Center's FAQ[34] provides further information and resources for collecting public input.

5 Does the city have a policy requiring sidewalks on both sides of arterial streets?

☐ Yes ☐ No

On both sides of collector streets? ☐ Yes ☐ No

Sidewalk funding and installation: (if applicable, please provide a link or attachment of the relevant ordinance or policy)

Sidewalk funds link: _____

- **Does the city require sidewalks to be constructed or upgraded with all (or the vast majority of) new private development?** ☐ Yes ☐ No

[31] http://drusilla.hsrc.unc.edu/cms/downloads/PLA.PedestrianSafetyPlanningGroup.pdf
[32] http://www.walkinginfo.org/develop/activities-participation.cfm
[33] http://www.walkinginfo.org/funding/institutionalization-building.cfm
[34] http://www.walkinginfo.org/faqs/answer.cfm?id=4121

- **Does the city have a sidewalk retrofit policy to fill gaps, repair sidewalks, and provide new sidewalks as needed?** ☐Yes ☐No

Rationale:

The presence of sidewalks in a community is associated with higher levels of walking and physical activity (Bureau of Transportation Statistics, 2004; Fulton, Shisler, Yore & Casperson, 2005; Institute of Medicine, 2005; Saelens & Handy, 2008). 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.

Resources:

See this summary[35] of Greensboro, North Carolina's sidewalk ordinance, which was amended in 2002 to support the city's walkability policy.

6 Has your community established a connectivity policy, pedestrian-friendly block length standards and connectivity standards for new developments, or convenient pedestrian access requirements? If yes, please provide a link or attachment of the policy or ordinance.

☐Yes ☐No

Link to document: _____

Rationale:

Street connectivity is associated with higher levels of physical activity (Frank., Andresen & Schmid, 2004; Frank, Sallis, Conway, Chapman, Saelens & Bachman, 2006; Saelens, Sallis, Black, & Chen, 2003; Smith, Brown, Yamada, Kowaleski-Jones, Zick & Fan, 2008). 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 (Dill, 2004). In addition, higher 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 (Ewing, nd; Zegeer, Sandt, Scully, Ronkin, Cynecki & Lagerwey, 2008). 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. Click here[36] for more information on using these indices.

Another great resource for the background and supporting research of connection between walkability and connectivity is found here[37].

The Victoria Transport Policy Institute[38] has more information on creating roadway and pathway connectivity.

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[35] http://www.greensboro-nc.gov/NR/rdonlyres/31F4744C-7F8B-4055-957A-C6A065BB8021/0/Sidewalk_Ordinance_Summary_Adopted_12302.pdf
[36] http://www.enhancements.org/download/trb/trb2004/TRB2004-001550.pdf
[37] http://pedshed.net/?p=71
[38] http://www.vtpi.org/tdm/tdm116.htm

7 Do you have a trails plan? ☐Yes ☐No

Is it routine policy to preserve rail corridors no longer needed for railroad purposes? ☐Yes ☐ No

How many miles of trails (paved/hard surface/natural) currently exist in your community? _____ **How many miles of trails are included in your current planning documents?**

_____

Please provide a link or attachment of relevant plan, if available.
Link to document: _____

Briefly describe trails and paths that are provided around the following locations. Include any relevant internet links that illustrate trail networks.

- **Lakes and waterways** _____
- **Utility corridors** _____
- **Municipal golf courses** _____
- **Private development (e.g. office parks, hospitals, residential developments)** _____
- **Other open space** _____

Is it routine policy to build trails and paths with all new and major re-developments?

☐Yes ☐No

Is it required through zoning regulations? ☐Yes ☐No

Are incentives provided to encourage trail construction? ☐Yes ☐No

If so, please provide a link or attachment of the policy or ordinance.

Link to trail incentive: _____

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 nonmotorized 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, particularly for low-income populations (Brownson, Bake, Housemann, & Bacak, 2001; Parks, Houseman, & Brownson, 2003). 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*[39] and the Federal Highway Administration's *Designing Sidewalks and Trails for Access, Part II of II: Best Practices Design Guide*[40] provide guidance on planning and designing trails.

[39] http://www.walkinginfo.org/library/details.cfm?id=2067

Click here[41] for information on the benefits of trails, trail design, and types of trails or see the Rails-to-Trails Conservancy report *Active Transportation for America: A Case for Increased Federal Investment in Bicycling and Walking*[42] to learn about the importance of federal funding for pedestrian infrastructure like trails.

See Rails-to-Trails Conservancy[43] and American Trails[44] for information and resources on trails.

To learn how other communities are constructing trails, see these case studies:

- Irondequoit Lakeside Multi-Use Trail[45], Rochester, New York
- Ke Ala Hele Makalae Trail[46], Kauai, Hawaii
- Tempe Crosscut Canal Multi-Use Path[47], Tempe, Arizona
- Saranac Lake River Walk[48], Saranac Lake, New York
- Philip A. Rayhill Memorial Trail[49], New Hartford, New York
- Linear Shared Use Path[50], Piqua, Ohio
- Atlanta Beltline[51], Atlanta, Georgia

8 Is your community served by public transportation? If so, please list the agencies and whether they are city, regional, or both.

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: _____**
- **Service miles per capita: _____**
- **Hours of operation for transit service:**

  Weekday: _____ Weekend: _____
- **Average headway on bus routes: _____**

  Average headway on train routes: _____
- **Average peak period bus headway: _____**
- **On time performance (%): _____**
- **Percent of bus stops that have wheelchair accessible shelters: _____**
- **What route planning software and trip information is provided? _____**

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[40] http://www.fhwa.dot.gov/environment/sidewalk2/
[41] http://www.walkinginfo.org/engineering/trails.cfm
[42] http://www.railstotrails.org/ourWork/advocacy/activeTransportation/makingTheCase/index.html
[43] http://www.railstotrails.org/index.html
[44] http://www.americantrails.org/
[45] http://drusilla.hsrc.unc.edu/cms/downloads/ENG.IrondequoitLakesideMulti-UseTrail.pdf
[46] http://drusilla.hsrc.unc.edu/cms/downloads/ENG.KeAlaHeleMakalaeTrail.pdf
[47] http://drusilla.hsrc.unc.edu/cms/downloads/ENG.TempeCrosscutCanalMulti-UsePath.pdf
[48] http://drusilla.hsrc.unc.edu/cms/downloads/OTH.SaranacLakeRiverWalk.pdf
[49] http://drusilla.hsrc.unc.edu/cms/downloads/ENG.PhilipA.RayhillMemorialTrail.pdf
[50] http://drusilla.hsrc.unc.edu/cms/downloads/ENG.LinearSharedUsePath.pdf
[51] http://drusilla.hsrc.unc.edu/cms/downloads/OTH.HealthImpactAssessmentofProposedAtlantaBeltline.pdf

- **Sidewalk, curb ramps, and street crossings around the majority of bus stops are ADA compliant (check one):**

  □ None □ Few □ Some □ Most □ All

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 (Besser & Dannenberg, 2005) and transit-oriented areas may encourage walking (Institute of Medicine, 2005). 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).

Resources:

Click here[52] to learn more about planning for transit and walking or see how Washington, D.C.[53], New Jersey[54], and New York City[55] are improving walking and bicycling conditions for transit users. This case study[56] describes how Cleveland, Ohio prioritized bus shelter improvements.

See this study[57] to learn more about factors affecting pedestrian route choices to transit.

This Federal Highway Administration's Pedestrian Safety Guide for Transit Agencies[58] provides information on identifying and improving pedestrian safety and access issues.

9 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.

☐ **Maximum parking standards or absence of minimum parking standards**

Link to standard: _____

Description of standards: _____

_____

☐ **Parking location requirements (i.e., parking below, beside, or behind a building; allowing on-street parking to meet minimum parking requirements)**

Link to location requirements: _____

Description of requirements: _____

_____

☐ **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.**

Link to size/design requirements: _____

[52] http://www.walkinginfo.org/transit/
[53] http://www.tooledesign.com/metro/
[54] http://www.state.nj.us/transportation/business/localaid/documents/ssttHandbook2.pdf
[55] http://www.nyc.gov/html/dot/html/sidewalks/safertstransit.shtml
[56] http://drusilla.hsrc.unc.edu/cms/downloads/OTH.TransitWaitingEnvironments.pdf
[57] http://transweb.sjsu.edu/mtiportal/research/publications/documents/06-06/MTI-06-06.pdf
[58] http://safety.fhwa.dot.gov/ped_bike/ped_transit/ped_transguide/transit_guide.pdf

Description of requirements: _____

☐ **Shared parking allowances**

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 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.

Link to allowances: _____

Description of allowances: _____

_____

☐ **Priced public parking**

Link to prices: _____

Description of priced parking: _____

_____

☐ **Parking cashout incentives**

Definition: Parkng cashout is a financial incentive in which employees who do not drive and park at work receive a subsidy that approximates the cost employers bear to provide free parking to employees.

Link to incentives: _____

Description of incentives: _____

_____

☐ **Remote parking and/or park and ride**

Link to remote parking: _____

Description of remote parking: _____

_____

☐ **Other**

Link to other approach: _____

Description of other approach: _____

_____

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 (Wilson, 1995). In addition, a driver's use of parking tends to be quite price sensitive, indicating that an abundance of free parking may encourage automobile use and, consequently, discourage alternate modes like transit and walking (Richard, 2000). Careful attention to the quality of parking provided, rather than the quantity, can help create walk-friendly environments (Mukhija & Shoup, 2006).

Resources:

The San Francisco Metropolitan Transportation Commission has created a guideline for parking best practices[59], Alexandria, VA has a helpful fact sheet[60] on shared parking, or see the Environmental Protection Agency's *Parking Spaces/Community Places: Finding the Balance through Smart Growth Solutions*[61] for innovative parking solutions.

Donald Shoup and Douglas Kolozsvari discuss a policy in Pasadena, California,[62] that used parking meter revenue for sidewalk amenities and other improvements for pedestrians.

Todd Litman has developed a number of helpful resources and articles. His article, Parking Management: Strategies, Evaluation, and Planning[63], gives an excellent overview of parking strategies, policies, and costs.

10 Approximately what percentage of development in the last five years has been infill? _____%

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

☐ **Secondary or accessory dwelling units are permitted**

Definition: These units are self-contained apartments on an owner occupied single-family lots.

Link to measure: _____

Description of measure: _____

_____

☐ **Retail/commercial uses are required on the ground floor of residential buildings in mixed use corridors or districts**

Link to measure: _____

Description of measure: _____

_____

☐ **Density bonuses to developers are provided for providing amenities that enhance walkability and liveability**

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.

Link to measure: _____

Description of measure: _____

_____

☐ **Form-based or design-based codes are used**

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.

Link to measure: _____

[59] http://www.mtc.ca.gov/planning/smart_growth/parking_seminar/BestPractices.pdf
[60] http://alexandriava.gov/uploadedFiles/planning/info/SharedParkingFactSheet.pdf
[61] http://www.epa.gov/smartgrowth/pdf/EPAParkingSpaces06.pdf
[62] http://shoup.bol.ucla.edu/SmallChange.pdf
[63] http://www.vtpi.org/park_man.pdf

Description of measure: _____

_____

☐ **Neighborhood school siting policies**

Link to measure: _____

Description of measure: _____

_____

☐ **Other (please describe): _____**

Rationale:

Dense development is associated with higher levels of walking and transit use and reduced automobile dependency (Ewing, nd). Compact , mixed-use development is fundamental to making communities walkable because more origins and destinations will be within walking distance of one another (Leinberger, 2007; Saelens & Handy, 2008). 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:

This Environmental Protection Agency document[64] describes the many benefits of density and this one [65] describes the effects of school siting policies.

Vancouver, British Columbia, recently adopted an EcoDensity Charter[66], in which it explains how density can support sustainable, livable communities.

Reid Ewing and others review the relationship between urban development and climate change[67], and recommend high-density, mixed use urban development as a strategy for mitigating the effects of climate change.

11 Please briefly describe any urban design features or pedestrian amenities that your community uses or requires to create a comfortable and attractive walking environment. Include features such as sidewalk furniture, landscaping, art, and lighting; building and façade design requirements; and amenities like public restrooms, water fountains, and signs or wayfinding systems.

_____

_____

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

Link: _____

[64] http://www.epa.gov/smartgrowth/pdf/density.pdf
[65] http://www.epa.gov/smartgrowth/pdf/school_travel.pdf
[66] http://www.vancouver-ecodensity.ca/webupload/File/ecodensity-charter-low.pdf
[67] http://postcarboncities.net/node/1466

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.

Resources:

The idea that design features and pedestrian amenities can affect the walking experience, while quite intuitive, is difficult to show empirically. This study[68] creates a framework for measuring the effect of urban design features on walkability.

The American Institute of Architects' document, *Livability 101*[69], describes the features that enhance pedestrian environments and, consequently, make communities more livable. Likewise, this guide[70] provides suggestions for creating places for people to walk and bike.

See an example[71] of a pedestrian-oriented overlay district from Greensboro, North Carolina.

Check out Seattle, Washington's municipal code[72] specifying design standards along streets with high pedestrian traffic. This ordinance specifies allowable street level uses, maximum building setback distances, sidewalk design requirements, and building and façade standards, such as transparency requirements and overhead weather protection.

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

_____

_____

_____

_____

[68] http://www.smartgrowth.umd.edu/research/pdf/EwingClementeHandyEtAl_WalkableUrbanDesign_093005.pdf
[69] http://www.aia.org/aiaucmp/groups/aia/documents/pdf/aias077944.pdf
[70] http://www.activelivingresources.org/assets/2010IPA_full.pdf
[71] http://www.greensboro-nc.gov/NR/rdonlyres/BD9D5EC8-893B-4CC0-BC05-9DD33855230F/0/springgardenoverlay.pdf
[72] http://clerk.ci.seattle.wa.us/~scripts/nph-brs.exe?d=CODE&s1=23.71.008.snum.&Sect5=CODE1&Sect6=HITOFF&l=20&p=1&u=/~public/code1.htm&r=1&f=G

EDUCATION & ENCOURAGEMENT

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 (i.e., motorists 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 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.

☐ **Walk to School Day/Week**

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.

Description: _____

☐ **Walking Wednesdays or other walking events**

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.

Description: _____

☐ **Walkability audits or SRTS maps**

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.

Description: _____

☐ **Walking School Bus**

Definition: From saferoutesinfo.org : A group of children that walk or bicycle to school together accompanied by one or more adults.

Description: _____

☐ **Student safety patrol**

Definition: From saferoutesinfo.org: 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.

Description: _____

☐ **Tracking system to count the number of children walking to school**

Description: _____

☐ **Other (please describe): _____**

Description: _____

Please estimate what percent of schools in your communities participate in the following:

- **Ongoing SRTS program: _____**
- **Special walk to school events only: _____**
- **No walk to school or SRTS activities: _____**

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 that fewer children are walking and bicycling to school today and about rising rates of childhood obesity and the attendant long-term health risks and impact on the nation's health care system. SRTS programs typically employ a multi-faceted approach to improving walking and bicycling to school that include education and encouragement activities like those listed above.

Resources:

The U.S. Department of Transportation offers a clearinghouse of SRTS information[73]. The National Center for Safe Routes to School provides resources for specific SRTS activities, such as Walk to School Day[74], Walking School Bus[75] programs, Walkability Checklists[76], SRTS maps[77], and student travel tally sheets[78] for tracking the number of students walking to school.

Click here[79] for SRTS case studies focusing on encouragement programs and here[80] for case studies on education activities.

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 Web site, a toolkit, educational sessions, and grant workshops.

The SRTS National Partnership also includes resources on its Website[81] for individuals, schools, and advocacy groups to help build support for and capacity of SRTS programs.

---

[73] www.saferoutesinfo.org
[74] http://www.walktoschool.org/
[75] http://www.saferoutesinfo.org/guide/walking_school_bus/pdf/wsb_guide.pdf
[76] http://drusilla.hsrc.unc.edu/cms/downloads/walkabilitychecklist.pdf
[77] http://www.saferoutesinfo.org/resources/collateral/walkbikeroutetipsheet.pdf
[78] http://www.saferoutesinfo.org/resources/collateral/SRTS_Two_Day_Tally_Scan2009.pdf
[79] http://www.saferoutesinfo.org/guide/case_studies/case_studies_list.cfm?CHAPTER_ID=C386
[80] http://www.saferoutesinfo.org/guide/case_studies/case_studies_list.cfm?CHAPTER_ID=C522

2 Please describe any education and training programs related to pedestrian education, safety, or design for staff in your municipality. Staff may include transportation officials, law enforcement officers, school staff and teachers, and advocates and public health professionals. Please include in this description the nature, frequency, scope, and results of these programs.

_____

_____

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 training courses[82] 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.

See this case study[83] to learn more about efforts in Madison, WI, to train police officers on pedestrian safety laws.

3 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.

☐ **Walking safety training (e.g., targeted walking education or encouragement programs for children, older adults, college students, transit riders, etc.)**

Link to relevant material: _____

Description: _____

_____

☐ **Driving safety with respect to pedestrians (e.g., pedestrian safety included in drivers education curriculum, test, manual or bus driver training)**

Link to relevant material: _____

Description: _____

_____

[81] http://www.saferoutespartnership.org/
[82] http://www.walkinginfo.org/training/pdps/descriptions.cfm
[83] http://drusilla.hsrc.unc.edu/cms/downloads/EDU.PedestrianSafetyEnforcementDVDs.pdf

☐ **Public service announcements**

Link to relevant material: _____

Description: _____

_____

☐ **Public health campaigns related to walking**

Link to relevant material: _____

Description: _____

_____

☐ **Environmental campaigns related to walking**

Link to relevant material: _____

Description: _____

_____

☐ **Walk to work events**

Link to relevant material: _____

Description: _____

_____

☐ **Prescription walking or prescribed trails**

Definition: Prescription walking or prescribed trails are when doctors prescribe walking time/distance and location

Link to relevant material: _____

Description: _____

_____

☐ **Other (please describe): _____**

Link to relevant material: _____

Description: _____

_____

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:

See these resources[84] for more information on education programs.

Communities are also beginning to use social marketing techniques to change behavior. Learn more about social marketing strategies here[85] or read about a particularly successful example in Portland, Oregon called SmartTrips[86]. Between 2002 and 2006, the Centers for Disease Control and Prevention ran a social marketing campaign called VERB[87] that aimed to increase physical activity among preadolescents.

Check out the American Heart Association's public health campaign, Start[88], which aims to encourage walking as a form of physical activity or Montgomery County, Maryland's Drive Safe[89] program, which teaches new drivers pedestrian safety concepts.

Also see this NHTSA guide[90] on education children on safe street-crossing behaviors.

4 Please check and briefly describe any walking tours, guides, or maps that are available (on-line 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.

☐ **Walking maps (e.g., neighborhoods maps, school route maps, city-wide maps, etc.)**

Link to relevant material: _____

Description: _____

_____

☐ **Wayfinding and route signs for pedestrians**

Link to relevant material: _____

Description: _____

_____

☐ **History, historic district, architectural, or other themed walks**

☐ **Guided by a person**

Link to relevant material:

_____

Description:

_____

_____

☐ **Unguided using books and brochures, audio tours, or signs and wayfinding**

Link to relevant material:

_____

[84] http://www.walkinginfo.org/education/
[85] http://www.pednet.org/programs/social-marketing.asp
[86] http://drusilla.hsrc.unc.edu/cms/downloads/ENC.PortlandSmartTrips.pdf
[87] http://www.cdc.gov/YouthCampaign/
[88] http://startwalkingnow.org/home.jsp
[89] http://www.montgomerycountymd.gov/dirtmpl.asp?url=/Content/dot/dir/pedsafety/resource.asp
[90] http://www.walkinginfo.org/library/details.cfm?id=4479

Description:

_____

_____

☐ **Greenways and trail maps**

Link to relevant material: _____

Description: _____

_____

Rationale:

Communities that provide information about places to walk may enjoy higher rates of walking. Walking maps and tours may be 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:

Feet First, a pedestrian advocacy group in Seattle, Washington, produces neighborhood walking maps that highlight destinations like restaurants and grocery stores, transit stops, and schools. See examples of those maps here[91]. Learn how to create a walking map here[92].

See the variety of guided walking tours offered in San Francisco[93], Washington, DC[94], and Atlanta[95]. Or, see this downloadable map and audio tour[96] for the New Amsterdam trail in New York or these audio guided tours[97] of New York City.

5 Please briefly describe any events and activities in your community that promote walking. Include information about the target audience, nature, frequency, scope, and results of these events. Provide any relevant links and attachments, if available. Please mention any street closures (e.g., festivals, farmers markets, or Sunday Parkways),Walk to Work events, Main Street programs, or art or culture walks.

_____

_____

Rationale:

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

[91] http://www.feetfirst.info/mapping/index_html
[92] http://www.eatsmartmovemorenc.com/WalkingMapGuide/Texts/WalkingMapGuide_lowrez.pdf
[93] http://www.sfcityguides.org/
[94] http://www.washingtonwalks.com/
[95] http://www.preserveatlanta.com/walkingtours.htm
[96] http://nyharborparks.org/visit/tour-new-amsterdam.html
[97] http://www.nytimes.com/ref/arts/tour-instructions.html

Resources:

Sunday Parkways programs involve closing the street to automobile traffic and creating a welcoming environment for all types of walkers and bicyclists. Learn more about Sunday Parkways programs in Chicago, Illinois[98], Portland, Oregon[99], and San Francisco, California[100].

Learn about Main Street programs here.[101]

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

_____

_____

_____

_____

_____

_____

_____

[98] http://www.walkinginfo.org/library/details.cfm?id=4349
[99] http://www.portlandonline.com/Transportation/index.cfm?c=46103
[100] http://sundaystreetssf.com/
[101] http://www.preservationnation.org/main-street/about-main-street/the-programs/

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 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.

☐ **Sidewalks at least 5' wide in residential areas, 10'-30' in commercial zones**

☐ **Required buffer zone between sidewalk and street**

☐ **Level and continuous sidewalks at driveways so that driveways do not look like roadways**

Sidewalk design link: _____

Rationale:

Both FHWA and the Institute of Transportation Engineers (ITE) recommend a minimum width of 5 ft 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 4 to 8 ft is 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 2 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 the American Association of State Highway and Transportation Officials' *Guide for the Planning, Design, and Operation of Pedestrian Facilities*[102] or see the

[102] http://www.walkinginfo.org/library/details.cfm?id=2067

Federal Highway Administration's *Designing Sidewalks and Trails for Access, Part II of II: Best Practices Design Guide*[103].

2 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
Sidewalks on both sides		
Sidewalks on one side		
Paved shoulders ≥ 4'		

Please enter the following information about your road network:

- **What is the mileage of your total road network? _____**
- **How many miles of sidewalks are in your pedestrian master plan? _____**
- **How many miles of new sidewalk did you construct last year? _____**
- **How many miles of sidewalk did you construct in the last three years? _____**
- **How many miles of sidewalk do you plan to construct in the next three years?**

  _____

Rationale:

The presence of sidewalks in a community is associated with higher levels of walking and physical activity (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 (McMahon et al., 2002); paved shoulders reduce this type of crash by 71 percent (Gan et al., 2005). 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:

Click here[104] for more information on constructing sidewalks.

3 Does your community have a sidewalk condition and curb ramp inventory process?

Description: _____

_____

Does your community use government funds to repair broken sidewalks?

☐Yes ☐No

[103] http://www.fhwa.dot.gov/environment/sidewalk2/
[104] http://www.walkinginfo.org/engineering/roadway-sidewalks.cfm

What is the annual line item for sidewalk maintenance in your community's budget?_____

Estimate the percent of intersections that have ADA accessible ramps on all four corners. ____%

Estimate the percent of sidewalks that need to be repaired or replaced. _____%

Does your community have a program to install curb ramps? ☐Yes ☐No
How many ramps are installed per year? _____ **How many ramp installations are planned for next year?** _____

Does your community have a program to repair and replace broken sidewalks?
☐Yes ☐No
How many locations (or linear feet) were fixed last year? _____
How many repairs are planned for next year? _____

Is there a method for residents to report missing or broken sidewalks and curb ramps? ☐Yes ☐No
Please explain the process (e.g. on-line complaint form)? _____
_____
_____

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. 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 (Quiroga & Turner, 2008).

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:

Sidewalk Inventories

These case studies describe how some communities have inventoried their sidewalk network:

- Creating a Pedestrian Facility Inventory[105], New Castle County, Delaware
- Sidewalk Construction Program[106], Alameda, California
- Sidewalk Planning: A GIS-Based Approach[107], Austin, Texas
- Tucson Regional Sidewalk Inventory[108], Tucson, Arizona

See this article[109] to learn how Seattle, Washington inventoried and assessed the quality of approximately 850 crosswalks in the city.

Funding

Funding for pedestrian facilities can come from a variety of sources and may sometimes require some ingenuity. (For some creative solutions, click here[110].) Click on the links below for more information on infrastructure funding mechanisms or see Chapter 6 of *How to Develop a Pedestrian Safety Action Plan*[111].

Routine accommodation[112] 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.

SAFETEA-LU[113] (Safe Accountable Flexible Efficient Transportation Equity Act) set up funding through programs such as Congestion Mitigation and Air Quality[114], Safe Routes to School[115], and Transportation Enhancements[116].

American Recovery and Reinvestment Act[117]

Funding can come from both State and local government sources[118] and private sources[119].

Point of sale requirements[120] (See "Putting Cities Back on Their Feet.") Point of sale requirements stipulate that property owners ensure that elements of their property (in this case, adjacent sidewalks) meet certain predetermined standards at the time that the property is sold.

Reporting of hazards

The pedestrian advocacy organization, PEDS, in Atlanta, GA has partnered with the City of Atlanta to develop an online tool[121] for reporting pedestrian safety hazards.

4 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
Bridges (excluding freeways)	
Bridges with pedestrian provisions on at least one side	

[105] http://drusilla.hsrc.unc.edu/cms/downloads/PLA.CreatingaPedestrianFacilityInventory.pdf
[106] http://drusilla.hsrc.unc.edu/cms/downloads/ENG.SidewalkConstructionProgram.pdf
[107] http://www.walkinginfo.org/library/details.cfm?id=4408
[108] http://drusilla.hsrc.unc.edu/cms/downloads/PLA.TucsonRegionSidewalkInventory.pdf
[109] http://findarticles.com/p/articles/mi_qa3734/is_200401/ai_n9388855/
[110] http://www.walkinginfo.org/funding/sources-community.cfm
[111] http://drusilla.hsrc.unc.edu/cms/downloads/howtoguide2006.pdf
[112] http://www.walkinginfo.org/funding/institutionalization.cfm
[113] http://www.fhwa.dot.gov/safetealu/index.htm
[114] http://www.fhwa.dot.gov/safetealu/factsheets/cmaq.htm
[115] http://www.fhwa.dot.gov/safetealu/factsheets/saferoutes.htm
[116] http://www.fhwa.dot.gov/environment/te/1999guidance.htm
[117] http://www.enhancements.org/recovery.asp
[118] http://www.walkinginfo.org/funding/sources-government.cfm
[119] http://www.walkinginfo.org/funding/sources-private.cfm
[120] http://shoup.bol.ucla.edu/
[121] http://atlantaga.gov/government/publicworks/sidewalkmain_091604.aspx

Pedestrian overpasses (or bridges)	
Pedestrian underpasses	

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

Bridge #1 _____

Bridge #2 _____

Bridge #3 _____

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

_____

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 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:

For more information, see the American Association of State Highway and Transportation Officials' *Guide for the Planning, Design, and Operation of Pedestrian Facilities*[122].

This PBIC guide[123] has information and resources on design considerations and best practices.

5 Does your community maintain a pedestrian signaling system? ☐Yes ☐No

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.

Link: _____

Description: _____

_____

- **Do you provide pedestrian recall (pedestrians receiving a walk signal during every phase without using a push button) in high pedestrian corridors?**

  ☐Yes ☐No

- **At locations where pedestrian push buttons are used, are the push buttons reachable from a level landing and located in line with the crosswalk line furthest from the intersection?**

  ☐Yes ☐No

[122] http://www.walkinginfo.org/library/details.cfm?id=2067
[123] http://www.walkinginfo.org/faqs/answer.cfm?id=4126

- **Approximately what percentage of intersections have accessible pedestrian signals with audible walk indications? _____%**
- **Approximately what percentage of intersection have pushbutton-integrated accessible pedestrians signals with audible and vibrotactile indications? _____%**
- **What is the average walk speed used to determine signal timing? _____ ft/s**
- **Do you operate your signals that have dedicated left turn arrows with a protected only phase or with protective permissive phases?**

  Explain: _____

  _____
- **Do you use right-turn-on-red restrictions? If yes, when and where? _____**

  _____
- **What percentage of intersections have countdown signals? _____%**

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 and longer walk intervals provide better service to pedestrians and encourage better signal compliance. For optimal pedestrian service, fixed-time signal operation usually works best. Pedestrian pushbuttons may be installed at locations where pedestrians are expected intermittently and should be located close to the crosswalk they serve. 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. Many older pedestrians may have poor visual contrast sensitivity and may be unable to see the visual walk indication reliably, particularly in bright sunlight.

Countdown signals are required for all pedestrian signals by the MUTCD and all existing pedestrian signal indicators must be replaced within 10 years. They may 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. A 25 percent reduction in pedestrian crashes when compared to ordinary pedestrian signals has been found with countdown signals (Markowitz et al. 2006).

Prohibiting 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.

Resources:

For more information on engineering treatments for pedestrian safety consult the Federal Highway Administration's *Manual on Uniform Traffic Control Devices*,[124] the American Association of State Highway and Transportation Officials' *Guide for the Planning, Design, and Operation of Pedestrian Facilities*,[125] accessibility guidelines here[126], or see Chapter 5 of *How to Develop a Pedestrian Safety Action Plan*[127].

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[124] http://mutcd.fhwa.dot.gov/
[125] http://www.walkinginfo.org/library/details.cfm?id=2067
[126] http://www.access-board.gov/prowac/
[127] http://drusilla.hsrc.unc.edu/cms/downloads/howtoguide2006.pdf

Click here[128] for guidance on using accessible pedestrian signals (APS) or here[129] for more signal information.

St. Petersburg, Florida provides an evaluation[130] of the implementation of a new pedestrian signal.

The PedSafe Web site[131] and manual[132] provide 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.

6 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: _____

- **How are marked crosswalk locations selected?** _____

  _____

- **What is your standard crosswalk marking type (e.g., parallel lines, ladder style, high visibility, etc.)?** _____
- **Are crosswalk markings regularly maintained?** ☐Yes ☐No
- **Are in-road stop/yield signs[133] used?** ☐Yes ☐No

  How are these locations selected? _____
- **Are advance stop/yield lines placed at multilane uncontrolled marked crosswalks in order to reduce multiple threat crashes?** ☐Yes ☐No
- **Are there other pedestrian safety practices being used at crosswalks?**

  _____

  _____

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 6 to 15 m (20 to 50 ft) ahead of the crosswalk can greatly reduce the likelihood of a multiple-threat crash, as this

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[128] http://www.apsguide.org/
[129] http://www.walkinginfo.org/engineering/crossings-signals.cfm
[130] http://drusilla.hsrc.unc.edu/cms/downloads/FDOT_BA784%20EvaluationRectangularRapidFlashBeaconStPetersburgFlorida.pdf
[131] http://www.walkinginfo.org/pedsafe/
[132] http://www.walkinginfo.org/pedsafe/pedsafe_downloads.cfm
[133] http://mutcd.fhwa.dot.gov/htm/2009/part2/fig2b_02_longdesc.htm

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.

Resources:

For best practices for crosswalk installation, see the FHWA's *Manual on Uniform Traffic Control Devices*,[134] the American Association of State Highway and Transportation Officials' *Guide for the Planning, Design, and Operation of Pedestrian Facilities*,[135] or see Chapter 5 of *How to Develop a Pedestrian Safety Action Plan*[136].

Click here[137] for guidance on using accessible pedestrian signals (APS) or here[138] for more general information on pedestrian signs and signals.

Columbia, MO has helpful policy and standards for pedestrian crossings[139].

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[140].

Find information about model snow removal policies for city sidewalks here.[141]

You can also find more information on crosswalk installation and crossing enhancements here[142], here[143], or here[144].

7 Does your community design and build its own roadways? ☐Yes ☐No

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.

- **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? Are any more planned?**

  Link to island policy: _____

  Description: _____

  _____

- **Do you routinely install curb extensions? How many have been installed in the last three years? Are any more planned?**

  Link to curb extension policy: _____

  Description: _____

  _____

[134] http://mutcd.fhwa.dot.gov/
[135] http://www.walkinginfo.org/library/details.cfm?id=2067
[136] http://www.walkinginfo.org/library/details.cfm?id=2067
[137] http://www.walkinginfo.org/aps/
[138] http://www.walkinginfo.org/engineering/crossings-signals.cfm
[139] http://www.gocolumbiamo.com/PublicWorks/Documents/Engineering/cwpolicy.pdf
[140] http://www.tfhrc.gov/safety/pubs/04100/index.htm
[141] http://www.walkinginfo.org/faqs/answer.cfm?id=4125
[142] http://www.walkinginfo.org/engineering/crossings-crosswalks.cfm
[143] http://www.walkinginfo.org/engineering/crossings-enhancements.cfm
[144] http://www.walkinginfo.org/pedsafe/

- **What is the standard curb radius (10’, 15’, 20’, 25’ 30’, 35’) for local, collector, and arterial streets?**

  Link to curb radius policy: _____

  Description: _____

  _____

- **What other geometric design features are implemented for pedestrian safety?**

  Link to other design features: _____

  Description: _____

  _____

- **Has your community taken initiatives to increase safety for people crossing the street at bus stops that are not located at signalized intersections or crosswalks?**

  Link to bus stop policy: _____

  Description: _____

  _____

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 to 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 significantly decrease the percentage of pedestrian crashes by 25-50 percent (Zegeer et al. 2002, ITE 2004) and reduce all crashes by 30-35 percent (Bahar et al. 2007), 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, need to 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 ft (3 to 4.6 m) without suffering any detrimental effects. More typically, in new construction, the appropriate turning radius is about 15 ft (4.6 m) for residential streets and about 25 ft (7.6 m) for arterial streets with a substantial volume of turning buses and/or trucks.

The Bureau of Transportation Statistics 2000 report *Freedom to Travel*[145] 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)[146] 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*,[147] the American Association of State Highway and Transportation Officials' *Guide for the Planning, Design, and Operation of Pedestrian Facilities*[148] or its *A Policy on Geometric Design of Highways and Streets*[149]. Also see Chapter 5 of *How to Develop a Pedestrian Safety Action Plan*.[150]

The Federal Highway Administration's Guidance Memorandum on Consideration and Implementation of Proven Safety Countermeasures [151] provides guidance for sidewalks and pedestrian refuges.

8 Please briefly describe any innovative pedestrian treatments installed in your community? Treatments may include special pedestrian phasing such as a leading pedestrian interval or scramble timing, crossing aids such as a HAWK beacon or rapid flash beacon, or passive pedestrian detection. Include any relevant links or attachments, if available.

Link to special treatment document: _____

Description of treatments: _____

_____

Rationale:

A simple, useful change at signalized intersections is the leading pedestrian interval (LPI). An LPI gives pedestrians an advance walk signal before the motorists get a green light, giving the pedestrian several seconds to start in the crosswalk where there is a concurrent signal. Pedestrians are more visible to motorists and motorists are more likely to yield to them. This advance crossing phase approach has been used successfully for two decades in places such as New York City; studies have demonstrated reduced conflicts for pedestrians. The LPI is particularly effective where there is a two-lane turning movement. To be useful to pedestrians with vision impairments, an LPI needs to be accompanied by an audible signal to indicate the walk interval.

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.

Another effective traffic control device is the rectangular rapid flash beacon. Studies have found motorist yield rates of over 80 percent with these devices on roadways with medians (Van Houten, 2004). These beacons are yellow, rectangular, and have a rapid "wig-wag" flash activated through active or passive detection.

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[145] http://www.bts.gov/publications/freedom_to_travel/
[146] http://www.tfhrc.gov/safety/pedbike/pubs/06125/06125.pdf
[147] http://mutcd.fhwa.dot.gov/
[148] http://www.walkinginfo.org/library/details.cfm?id=2067
[149] https://bookstore.transportation.org/Item_details.aspx?id=110
[150] http://drusilla.hsrc.unc.edu/cms/downloads/howtoguide2006.pdf
[151] http://safety.fhwa.dot.gov/policy/memo071008/

Since pedestrian pushbutton devices are not activated by about one-half of pedestrians (even fewer activate them where there are sufficient motor vehicle gaps), new "intelligent" microwave or infrared pedestrian detectors are now being installed and tested in some U.S. cities. These automatically detect pedestrians and activate the red traffic and walk signals when pedestrians are present. Detectors can also be used to extend the crossing time for slower moving pedestrians in the crosswalk.

Resources:

See this case study[152] from Phoenix, Arizona or this report[153] from the FHWA, to learn more about HAWK beacons.

This analysis[154] describes St. Petersburg, Florida's experience with rapid flash LED beacons at crosswalks.

See here[155] or here[156] for information on crosswalk treatments or read this case study of innovative crosswalk treatments in Arlington, Virginia[157].

The *Manual on Uniform Traffic Control Devices*[158] also provides information on a variety of signaling, signage, and other engineering techniques.

9 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.

Link to calming practices document: _____

Description of practices: _____

_____

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, 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 that 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 (Harkey et al. 2008).

Resources:

Click here[159] for more information on traffic calming solutions.

Pima County, AZ provides an example of a Neighborhood Traffic Management Program[160].

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[152] http://drusilla.hsrc.unc.edu/cms/downloads/ENG.BringingLifetoTransportation.pdf
[153] http://www.fhwa.dot.gov/publications/research/safety/10042/10042.pdf
[154] http://mutcd.fhwa.dot.gov/resources/interim_approval/ia11/stpetersburgrpt/stpetersburgrpt.pdf
[155] http://www.walkinginfo.org/faqs/answer.cfm?id=46
[156] http://www.walkinginfo.org/engineering/crossings-signals.cfm
[157] http://www.walkinginfo.org/library/details.cfm?id=2880
[158] http://mutcd.fhwa.dot.gov/
[159] http://www.walkinginfo.org/engineering/calming.cfm

Chapter 5 of *How to Develop a Pedestrian Safety Action Plan*[161] provides information on traffic calming techniques.

Learn more about road diets in *Road Diets: Fixing the Big Roads*[162] and *Evaluation of Lane Reduction "Road Diet" Measures and Their Effects on Crashes and Injuries*[163].

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

_____

_____

_____

_____

[160] http://www.dot.co.pima.az.us/trafeng/NTMP/
[161] http://drusilla.hsrc.unc.edu/cms/downloads/howtoguide2006.pdf
[162] http://www.walkable.org/assets/downloads/roaddiets.pdf
[163] http://www.tfhrc.gov/safety/hsis/pubs/04082/index.htm

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 How many officers does your community have? _____

How many of these are involved in enforcement and what is the average amount of work time per officer devoted to enforcement?

- **Number in enforcement: _____**
- **Average hours (officers/month) of enforcement: _____**

Does your community have a traffic safety officer? ☐Yes ☐No

If so, please estimate the amount of work time that is devoted to responsibilities concerning pedestrian laws and safety. _____

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:

Some states and communities, like South Carolina[164], have Traffic Safety Officer Training Programs.

2 Does your community use targeted enforcement programs to promote pedestrian safety in crosswalks? Indicate which of these elements, if any, are part of the enforcement program.

☐ **Pedestrian decoys (aka crosswalk stings)**

Definition: From walkinginfo.org: 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

[164] http://www.nhtsa.dot.gov/people/outreach/safedige/spring2003/spr03_w13_SC.htm

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.

☐ **Media campaigns regarding enforcement**

☐ **Speed feedback signs**

☐ **Progressive ticketing**
Definition: From walkinginfo.org: Progressive ticketing is a method for introducing ticketing through a three-staged process: educating, warning, and ticketing.

☐ **Other (please describe): _____**

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:

For more information on improving yield-to-pedestrian compliance, look here[165] or read case studies about a successful education and enforcement programs in Amherst, Massachusetts[166] and Missoula, Montana[167]. This case study[168] describes a successful pedestrian decoy operation.

More general information on law enforcement approaches can be found here[169].

For more information on the impact of crosswalk signs, click here[170].

Click here[171] to learn more about relaying important messages to target audiences, including child and college-age pedestrians, alcohol consumers, and older adults. The Federal Highway Administration has created education materials[172] 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*[173].

See these case studies to learn about how law enforcement officers have helped implement targeted education campaigns.

- Comprehensive School-Age Pedestrian Safety Program,[174] Orange County, Florida
- Bicycle and Pedestrian Safety Campaign,[175] Burlington, Vermont

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[165] http://www.walkinginfo.org/faqs/answer.cfm?id=3921
[166] http://drusilla.hsrc.unc.edu/cms/downloads/EDU.CrossSafelyDriveSafely.pdf
[167] http://drusilla.hsrc.unc.edu/cms/downloads/COM.MissoulaPedestrianSafetyCampaign.pdf
[168] Link to pg. 101 in PSAP
[169] http://www.walkinginfo.org/enforcement/programs-enforcement.cfm
[170] http://www.walkinginfo.org/faqs/answer.cfm?id=3455
[171] http://www.walkinginfo.org/education/messages.cfm
[172] http://www.walkinginfo.org/library/details.cfm?id=3467
[173] http://www.walkinginfo.org/library/details.cfm?id=2321
[174] http://drusilla.hsrc.unc.edu/cms/downloads/EDU.ComprehensiveSchool-AgePedestrianSafetyProgram.pdf
[175] http://drusilla.hsrc.unc.edu/cms/downloads/COM.BicycleandPedestrianSafetyCampaign.pdf

3 How many citations does your local police department give annually for traffic infractions that relate to road safety? _____

Is this up or down from previous years? ☐Up ☐Down

Please list the number of citations given for the following infractions:

- **Speeding: _____**
- **Failure to yield: _____**
- **Parking on sidewalks or too close to intersections or crosswalk:**

  _____

Does your community use photo enforcement technology that targets speeding and/or red light running? Explain. _____

_____

Rationale:

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 (2004) and others have found that enforcement aimed at motorists is more effective than enforcement aimed at pedestrians.

Speed photo-radar enforcement (SPE) has also been shown to be effective in reducing automobile speeds. One study by Medina et al. (2009) 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 1999 studies by Retting et al. showed 42 and 40 percent reductions in red-light violators after a publicized photo enforcement system was introduced.

Resources:

See the National Highway Traffic Safety Administration *Resource Guide on Laws Related to Pedestrian and Bicycle Safety*[176], a downloadable, interactive program, for more information pedestrian safety focused legislation from around the country. For more information on pedestrian crossing ordinances, refer to this guide.[177]

See Chapter 8 in *Countermeasures That Work*[178] for more information on effective enforcement techniques to improve pedestrian safety.

This guide[179] provides information and other resources on the effectiveness of citations.

Communities may use red light cameras[180] or photo speed enforcement[181] in addition to citations given by law enforcement officers.

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[176] http://www.walkinginfo.org/library/details.cfm?id=842
[177] http://www.walkinginfo.org/faqs/answer.cfm?id=4127
[178] http://ntl.bts.gov/lib/32000/32300/32356/6626_Countermeasures_01-06-10-v1.pdf
[179] http://www.walkinginfo.org/faqs/answer.cfm?id=4119
[180] http://www.walkinginfo.org/pedsafe/casestudy.cfm?CS_NUM=68
[181] Link to pg. 101 in PSAP

4 Which, if any, of the following approaches does your community take to ensure the safety and security of pedestrians and runners on city streets, trails, and walkways?

- ☐ **Emergency call boxes. Describe: _____**
- ☐ **Police patrols on foot or bike. Describe (include the number of officers that are bike patrol certified): _____**
- ☐ **Neighborhood watch programs. Describe: _____**
- ☐ **Drunk driving and drunk walking enforcement. Describe: _____**
- ☐ **Street lighting. Estimate the number of streets with lighting on one or both sides: arterial _____% non-arterial _____%**
- ☐ **Other (please describe):_____**

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. Lighting, eyes on the street, and police presence can be important elements in creating a safe and secure walking environment.

Resources:

See this case study[182] to learn more about a neighborhood speed watch program in Phoenix, Arizona or see Chapter 8 in *Countermeasures That Work*[183] for more information on effective techniques to improve pedestrian safety.

This case study[184] documents the use of specially-created DVDs for training traffic officers.

Click here[185] to learn what steps your community can take if crime is preventing people from walking.

5 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.

_____

_____

Provide a link or attachment of any relevant policies, if available.

Link: _____

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

[182] http://www.walkinginfo.org/pedsafe/casestudy.cfm?CS_NUM=71
[183] http://ntl.bts.gov/lib/32000/32300/32356/6626_Countermeasures_01-06-10-v1.pdf
[184] http://drusilla.hsrc.unc.edu/cms/downloads/EDU.PedestrianSafetyEnforcementDVDs.pdf
[185] http://www.walkinginfo.org/problems/problems-crime.cfm

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*[186], developed by the National Center for Safe Routes to School.

6 Does your community's police department have a systematic strategy for selecting locations and countermeasures for traffic and pedestrian safety?

Describe: _____

_____

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.

Resources:

See Chapter 4 in *How to Develop a Pedestrian Safety Action Plan*[187] or Chapter 8 in *Countermeasures that Work*[188] for more information on selecting areas for targeted enforcement and other safety countermeasures.

This case study[189] from San Jose, California describes how the Department of Transportation and Police Department worked together and used crash and citation data to guide a comprehensive education and enforcement campaign.

See how communities in Oakland, California[190] and Miami Dade, Florida[191] are using crash data to identify potential traffic improvements.

Sweden compiles national traffic crash data using both police crash reports and traffic related hospital admissions. This report[192] uses the Swedish Traffic Accident Data Acquisition (STRADA) Database to analyze nonmotorized crashes.

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[186] http://www.saferoutesinfo.org/guide/crossing_guard/pdf/crossing_guard_guidelines_web.pdf
[187] http://drusilla.hsrc.unc.edu/cms/downloads/howtoguide2006.pdf
[188] http://ntl.bts.gov/lib/32000/32300/32356/6626_Countermeasures_01-06-10-v1.pdf
[189] http://drusilla.hsrc.unc.edu/cms/downloads/EDU.StreetSmarts.pdf
[190] Pg. 27 of PSAP
[191] Pg. 29 of PSAP
[192] http://www.vti.se/templates/Report____2797.aspx?reportid=11753

7 Do police work regularly with traffic engineers and planners to review sites in need of safety improvement for motorists and pedestrians? ☐Yes ☐No

Describe: _____

_____

Does your community use crash and/or fatality data to identify problem areas and potential solutions? ☐Yes ☐No

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

_____

_____

Rationale:

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:

See here[193] and here[194] to learn more about developing diverse partnerships to address pedestrian safety issues.

[193] http://www.walkinginfo.org/problems/help.cfm
[194] http://www.walkinginfo.org/enforcement/partnerships.cfm

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 Does your community have an ongoing pedestrian counting and/or survey program that allows for long-term trend analysis of walking trips?

Please describe:

_____

_____

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[195] describes how communities across the country are conducting walking counts. Arizona's use of pedestrian surveys to gather information is described here[196].

The National Bicycle and Pedestrian Documentation Project[197], co-sponsored by Alta Planning and 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.

2 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?

☐ **Walkability Checklists**

☐ **Pedestrian Intersection Safety Index**

[195] http://drusilla.hsrc.unc.edu/cms/downloads/PBIC_Data_Collection_Case_Studies2005.pdf
[196] Pg. 33 of PSAP
[197] http://www.walkinginfo.org/library/details.cfm?id=4313

☐ **Pedestrian Level of Service (LOS)**

☐ **Pedestrian Road Safety Audit Guidelines and Prompt Lists**

☐ **Health Impact Assessment**

☐ **Other Evaluation Tools (Please describe)**

_____

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 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:

Walkability checklists[198] are a quick way to determine if your neighborhood has any major safety concerns for pedestrians. This educational video[199] details how to begin assessing your community's sidewalks.

The Pedestrian and Bicyclist Intersection Safety Indices[200] can help users identify the intersections that most merit pedestrian safety improvements.

The Pedestrian Road Safety Audit Guidelines and Prompt Lists[201] are intended to provide guidance for independent audit teams that are assessing pedestrian safety on particular roadways.

Health Impact Assessments[202] predict the health effects that a project will have prior to implementation.

Read about Florida's use a level of service (LOS) model for signalized intersections for pedestrians here[203].

3 Does your community routinely conduct pre/post evaluations of road projects and traffic calming with respect to pedestrian crashes, volumes and motor vehicle speeds? ☐Yes ☐No

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[204] can help plan for and evaluate pedestrian safety of particular infrastructure projects.

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[198] http://www.walkinginfo.org/library/details.cfm?id=12
[199] http://www.walkinginfo.org/videos/pubdetail.cfm?picid=55
[200] http://www.walkinginfo.org/library/details.cfm?id=2802
[201] http://www.walkinginfo.org/library/details.cfm?id=3955
[202] http://www.who.int/hia/en/
[203] Pg. 37 of PSAP
[204] http://www.walkinginfo.org/library/details.cfm?id=3955

4 Using Walk Score[205], what is the average (mean) walk score of the following locations in your community?

	Walk Score
Geographic center	
Northernmost point (City boundary directly north of geog. center)	
Easternmost point (City boundary directly east of geog. center)	
Southernmost point (City boundary directly south of geog. center)	
Westernmost point (City boundary directly west of geog. center)	
Midpoint of geographic center and northernmost point	
Midpoint of geographic center and easternmost point	
Midpoint of geographic center and southernmost point	
Midpoint of geographic center and westernmost point	
Urban school location	
Suburban school location	

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

_____

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.

Resources:

Walk Score[206] 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.

[205] http://www.walkscore.com/
[206] http://www.walkscore.com

ADDITIONAL QUESTIONS

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

_____

_____

_____

_____

_____

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

_____

_____

_____

_____

_____

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

_____

_____

_____

_____

_____

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