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Accessible Pedestrian Pathways Mini-Course Module 4 National Pedestrian Initiatives



advocacy | action | answers on aging



Module 4

National Pedestrian Initiatives

- U.S. DOT Research
- National Highway Traffic Safety Administration programs
- Federal Highway Administration programs
- National Cooperative Highway Research Program
- Transit Cooperative Research Program
- Non-federal Initiatives
- Shared Streets and Shared Space



U.S. DOT Research and Statistics

- U.S. DOT Office of Research and Technology is a good place to start:
<https://www.transportation.gov/research-technology>
- Research by mode including Pedestrian and Bicycle Safety:
https://safety.fhwa.dot.gov/ped_bike/research/
- Using DOT Research Hub 2.0, you can search by individual projects:
<https://researchhub.bts.gov/search>

National Highway Traffic Safety Administration Programs

- Road Safety section contains information on Pedestrian Safety programs.
<https://www.nhtsa.gov/road-safety/pedestrian-safety>
- From the Pedestrian Safety page, you can link to Fact Sheets, Tip Sheets, Research, Curricula, and Programs
- Information and practical tools for community professionals to use!

Federal Highway Administration Programs

Where to go for resources, publications and design guides:

FHWA Bicycle and Pedestrian program

https://www.fhwa.dot.gov/environment/bicycle_pedestrian/

Accessibility-specific resources

https://www.fhwa.dot.gov/environment/bicycle_pedestrian/resources/index_accessibility.cfm



Federal Highway Administration Programs

We'll take a brief look at two FHWA initiatives:

- Shared Streets recommendations
- Safe Transportation for Every Pedestrian Countermeasures



Safety and Accessibility Shared Streets



Shared Streets

“A shared street is a street that includes a shared zone where pedestrians, bicyclists, and motor vehicles mix in the same space.”

Features: Low vehicle speeds, low vehicle volumes, lack of modal segregation (vertical curbs, signs, markings), suggests pedestrian priority

https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/accessible_shared_streets/#planning



Shared Streets Accessibility



Chapters 6 and 7 of *Accessible Shared Streets: Notable Practices and Considerations for Accommodating Pedestrians with Vision Disabilities*

- Planning involves key stakeholder involvement and representation, and accessible meetings
- Shared Streets lessons learned: transition areas, designation of comfort zones, consistent application of detectable surfaces, careful parking locations, and low vehicle speeds are essential.



FHWA's STEP Program

Safe Transportation for Every Pedestrian

- focuses on uncontrolled crossing locations such as mid-block and un-signalized intersections
- mid-block and unsignalized locations are most common locations
- FHWA has identified countermeasures using markings, signs, lighting, and technology to create viable crossing points

FHWA STEP Program for Crossings



- According to FHWA statistics pedestrians account for over 17.5% of all fatalities in motor vehicle traffic crashes.
- Majority of the deaths occur at uncontrolled crossing locations such as mid-block or unsignalized intersections.
- Expecting pedestrians to travel significantly out of their way to cross is unrealistic in many cases.
- FHWA has proposed a series of pedestrian safety countermeasures.

Source: STEP Program Fact Sheet

https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/factsheet/safe_transportation.pdf

STEP Program Countermeasures

Five STEP Countermeasures

- Crosswalk Visibility Enhancements
- Raised Crosswalk
- Pedestrian Refuge Island
- Pedestrian Hybrid Beacon (PHB)
- Road Diet

Note: FHWA is updating STEP resources to include the Rectangular Rapid Flash Beacon (RRFB)

Crosswalk Visibility Enhancements

Potential crash reduction of 23-48%

Crosswalk Visibility Enhancements

This example combines curb extensions, high-visibility markings, and in-street signs on a two-lane roadway.



- High-visibility marking improves visibility of crosswalk compared to standard parallel markings
- Parking restrictions on crosswalk approaches improve sightlines for pedestrians and motorists.
- Advance Stop or Yield signs and markings.
- Curb extensions improve sight distance between drivers and pedestrians and narrows crossing distance.
- In-street Stop or Yield signs before crosswalk.

Raised Crosswalk

Potential Crash Reduction of 45%

Raised Crosswalk



- Elevated crossing makes the pedestrian more prominent in the driver's field of vision.
- Approach ramps may reduce vehicle speeds and improve motorist yielding.
- Raised crosswalks may be used with visibility enhancements.

Pedestrian Refuge Island

Potential Crash Reduction of 32%

Pedestrian Refuge Island



- Median can enhance visibility of the crossing and reduce speed of approaching vehicles.
- Refuge area provides a place to rest and reduces the amount of time a pedestrian is in the roadway.
- Islands desired in areas with four or more travel lanes and where speeds are 35 MPH or higher.

Pedestrian Hybrid Beacon Potential Crash Reduction of 55%

Pedestrian Hybrid Beacon (PHB)



- Stops all lanes of traffic.
- Applicable in high-speed and multiple-traffic lane unsignalized locations
- Beacon activated by pedestrian and flashing sequence indicates when it's okay for drivers to proceed
- Considered for locations where vehicle speeds or volumes are high but traffic signal warrants are not met.

Road Diet

Potential Crash Reduction of 19-47%

Road Diet



- Reduces crossing distance and exposure.
- Reduced vehicle speeds.
- Promote Complete Streets with bicycle lanes.
- Provide space for installing curb extensions and widening sidewalks.
- Create space for bicycle, transit, and/or parking lanes.

Applying STEP at the Local Level

April 2018 – NADTC and FHWA hosted a webinar on the STEP program featuring countermeasure applications in Phoenix, Washington, DC, and Richmond, VA.

To learn more listen to the webinar on YouTube:

<https://www.youtube.com/watch?v=uTJ-s0HCm4w>

STEP Safe Transportation for
Every Pedestrian



Safe Pedestrian Crossings at Transit

Thursday, April 19, 2018



U.S. Department of Transportation
Federal Highway Administration

Other Research and Resources

Transportation Research Board

- National Cooperative Highway Research Program
- Transit Cooperative Research Program

www.trb.org



Transportation Research Board

National Cooperative Highway Research Program and Transit Cooperative Research Program

- NCHRP 562/TCRP 112 – Improving Pedestrian Safety at Unsignalized Crossings
- NCHRP 117B – Guidelines for Accessible Pedestrian Signals
- TCRP 175 – Guidebook on Pedestrian Crossing of Public Transit Rail Services

Non-Federal Initiatives

In addition to organizations discussed in Module 2, primary Walking non-profits and collaboratives in the U.S. that offer resources, education, and advocacy include:

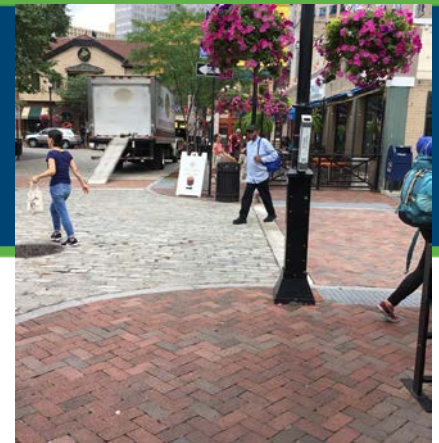
- [America Walks / Every Body Walk Collaborative](#)
- [Alliance for Biking and Walking](#)
- [Association of Pedestrian and Bicycle Professionals](#)
- [Transportation for America](#)

Resources: Where the Sidewalk Starts listing
<http://www.wherethesidewalkstarts.com/p/pedestrian-advocacy-groups.html>

National Center for Bicycling and Walking
<http://www.bikewalk.org/links.php>



Homework Assignment



Shared Streets....Accessible or Not?

1. Read Chapters 4 (People with Vision Disabilities pp. 5-8) and 7 (Lessons Learned pp. 15-17) of the FHWA publication *Accessible Shared Streets: Notable Practices and Considerations for Accommodating Pedestrians with Vision Disabilities*.

Link to publication page: <https://bit.ly/2o8flkF>

Link to publication PDF: <https://bit.ly/2MPezH7>

2. Take Module 4 quiz based on Chapters 4 and 7.

Informational reading: BBC News 'Shared' road schemes paused over dangers to blind people (July 27, 2018)

<https://www.bbc.co.uk/news/uk-england-44971392#>

Next Week

Module 5 will look at local walkability initiatives and provide informational tools to help you prepare for your final assignment.

- [Register for the September 4 Pedestrian Connections live webinar \(2pm Eastern/11:00 a.m. Pacific\)](#)
- We welcome your questions during the webinar or you may email questions in advance to Kristi McLaughlin at mclaughlinandmclaughlin@gmail.com.
- The webinar will be posted for anyone who cannot listen live.
- After listening to the webinar take the short Module 5 quiz.



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