

Pedestrian and Bicyclist Safety

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Source: FHWA



Source: FHWA



Source: FHWA



Federal Highway Administration (FHWA) Major Strategies

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- Problem Identification
- Countermeasures
- Outreach/Technical Assistance



Problem Identification

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- **Key Product**

FHWA Pedestrian and Bicyclist Safety Strategic Plan.

- **Key Message**

FHWA proactively works to decrease pedestrian and bicyclist fatalities.

- **Outcome**

FHWA will develop a 5-year plan for increasing pedestrian/bicyclist safety.



Countermeasures

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- **Key Product/Resource**

Pedestrian Countermeasures Crash Modification Factor (CMF) Study

- **Key Messages**

- Use Focused Approach and Every Day Counts (EDC5).
- Use Safe Transportation for Every Pedestrian (STEP) to promote pedestrian/bike safety improvements.

- **Outcomes**

- Use safety initiatives (Focused Approach, EDC5) to help stakeholders address pedestrian/bicyclist safety.
- Develop CMF on Leading Pedestrian Intervals (LPI).
- Develop Pedestrian-Intersection CMF.
- Develop CMF for different types of Separated Bike Lanes (SBLs).



Outreach/Technical Assistance

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- Safe Transportation for Every Pedestrian (STEP) Training and Workshops.
- Road Safety Audits/Assessments.
- Scan Tours.
- Peer Exchange.
- Conference Presentations.
- STEP Action Plans.
- Policy and Guidance.

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Arkansas – Tennessee Scan Tour
Source: FHWA



Administrator Nason's Pedestrian Safety Initiative to Reduce Pedestrian Fatalities and Serious Injuries

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WHY



FATALITIES

HOW

Showcase Tour

- Emphasize noteworthy practices.
- Highlight locations with pedestrian safety improvements.

Summit on Pedestrian Safety

- Identify problems.
- Highlight partnerships.
- Identify priorities.

GOAL

Zero Deaths

Source: FHWA



Safe Transportation for Every Pedestrian (STEP)

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Center for Accelerating Innovation

“Every Day Counts” (EDC)

State-based model to identify and rapidly deploy proven, but underutilized innovations

- ✓ shorten the project delivery process
- ✓ **enhance roadway safety**
- ✓ reduce congestion
- ✓ improve environmental sustainability

Initiating 5th Round (2019-2020) - 10 innovations

STEP

Safe Transportation for Every Pedestrian



Source: FHWA



STEP

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Benefits:

- Improve safety.
- Address nationwide pedestrian safety problem.
- Enhance quality of life.



Source: FHWA

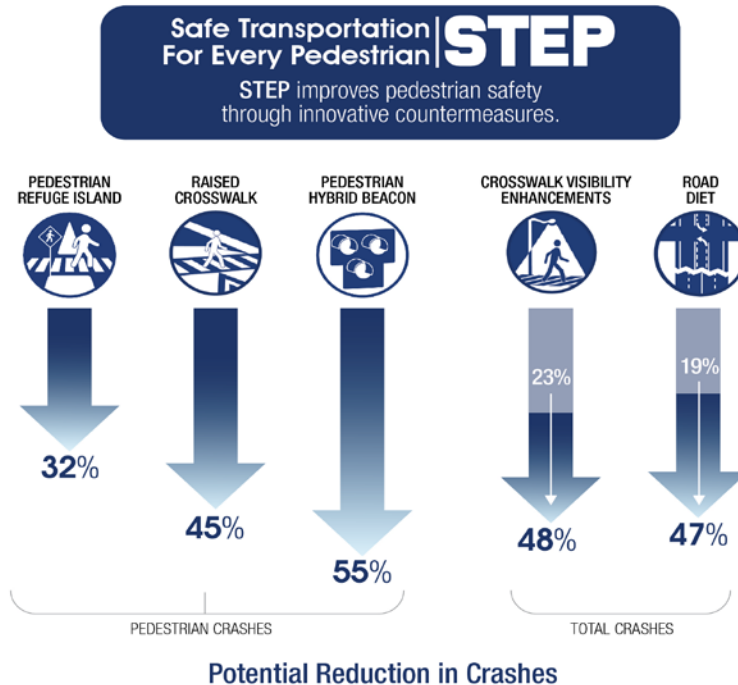
Source: FHWA



STEP

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The Spectacular Seven



Source: https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/step.cfm

Source: FHWA



Recent Accomplishments: Office of Safety

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- *Bikeway Selection Guide*

Completed six workshops.

- *Guide for Scalable Risk Assessment Methods for Pedestrians and Bicyclists (ScRAM)*

Completed six workshops and provide technical assistance.

- **STEP**

Forty-seven States received technical assistance.

- **Focus States**

- Twenty technical assistance workshops and four webinars completed in the past year.
- Bikeway Selection Guide training will be available.



Recent Accomplishments: Office Safety Research and Development (R&D)

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- Identification and Prioritization of High Pedestrian Crash Locations/Area.
- Pedestrian CMFs:
 - Leading Pedestrian Intervals (LPI).
 - Protected Left-Turn Phasing.
- Smart Cross Traffic Signal Interface on Smartphone.



Identification and Prioritization of High Pedestrian Crash Locations/Areas

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Guidebook on Identification of High Pedestrian Crash Locations

PUBLICATION NO. FHWA-HRT-17-106

APRIL 2018



U.S. Department of Transportation
Federal Highway Administration

Research, Development, and Technology
Turner-Fairbank Highway Research Center
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TECHBRIEF



Pedestrian and Bicycle Safety



U.S. Department of Transportation
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Identification of High Pedestrian Crash Locations

FHWA Publication No.: FHWA-HRT-17-108

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This document is a technical summary of the Federal Highway Administration report *Guidebook on Identification of High Pedestrian Crash Locations*, Report No. FHWA-HRT-17-106.

Background

One of the U.S. Department of Transportation's top priorities is the improvement of pedestrian and bicyclist safety. The Federal Highway Administration (FHWA) promotes safe, comfortable, and convenient walking for people of all ages and abilities. Part of this effort has been to encourage a data-driven approach to identifying and mitigating safety problems. An initial step in reducing the frequency of pedestrian crashes is identifying where they occur or where there is a concern that they are likely to occur. As part of an FHWA project, the *Guidebook on Identification of High Pedestrian Crash Locations* was developed to assist State and local agencies in identifying high pedestrian crash locations, such as intersections (points), segments, facilities, and areas.¹¹ The process of identifying high pedestrian crash locations resulted in a prioritized list of potential locations on the roadway system that could benefit from safety improvement projects.

Study Approach

Several cities and States were contacted to determine the criteria they used to identify and rank high pedestrian crash locations. In all cases, crash data were being used. In some cases, other variables were considered, especially when developing the list of sites for treatments. For example, Los Angeles used a score that considered the age of the pedestrian and a health and equity index in addition to the number of injury crashes and the number of fatal crashes. Several of the cities created unique lists for intersections, facilities, and areas, recognizing that treatment selection would be different for these element types.

Source: FHWA

Source: FHWA



CMF for Leading Pedestrian Intervals

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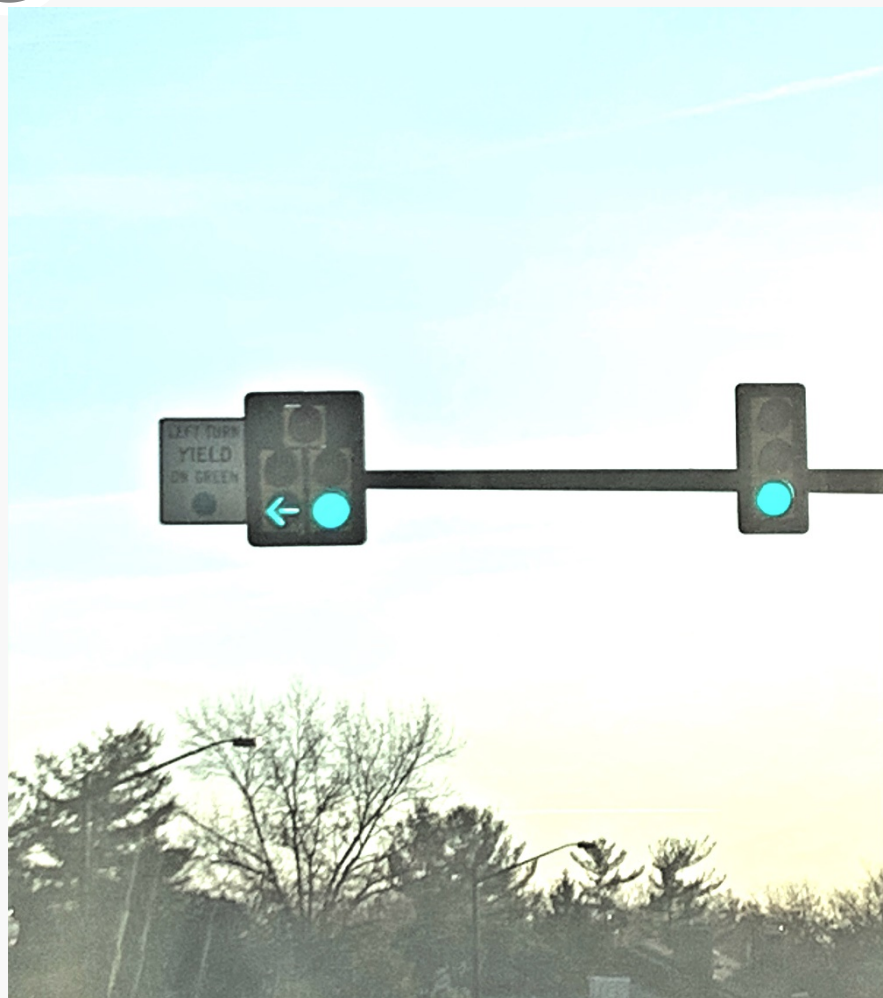


Source: FHWA



CMF for Protected Left-Turn Phasing

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Source: FHWA



Smart Cross Application

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The Smart Cross Application was developed through an award from the Small Business Innovation Research (SBIR) program.



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Safety R&D Current Research Studies

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- Development of CMFs for:
 - Different types of SBLs.
 - Right-turn radius for pedestrians at intersections.



SBL in New York



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SBL in New York City



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Bicyclist Signal

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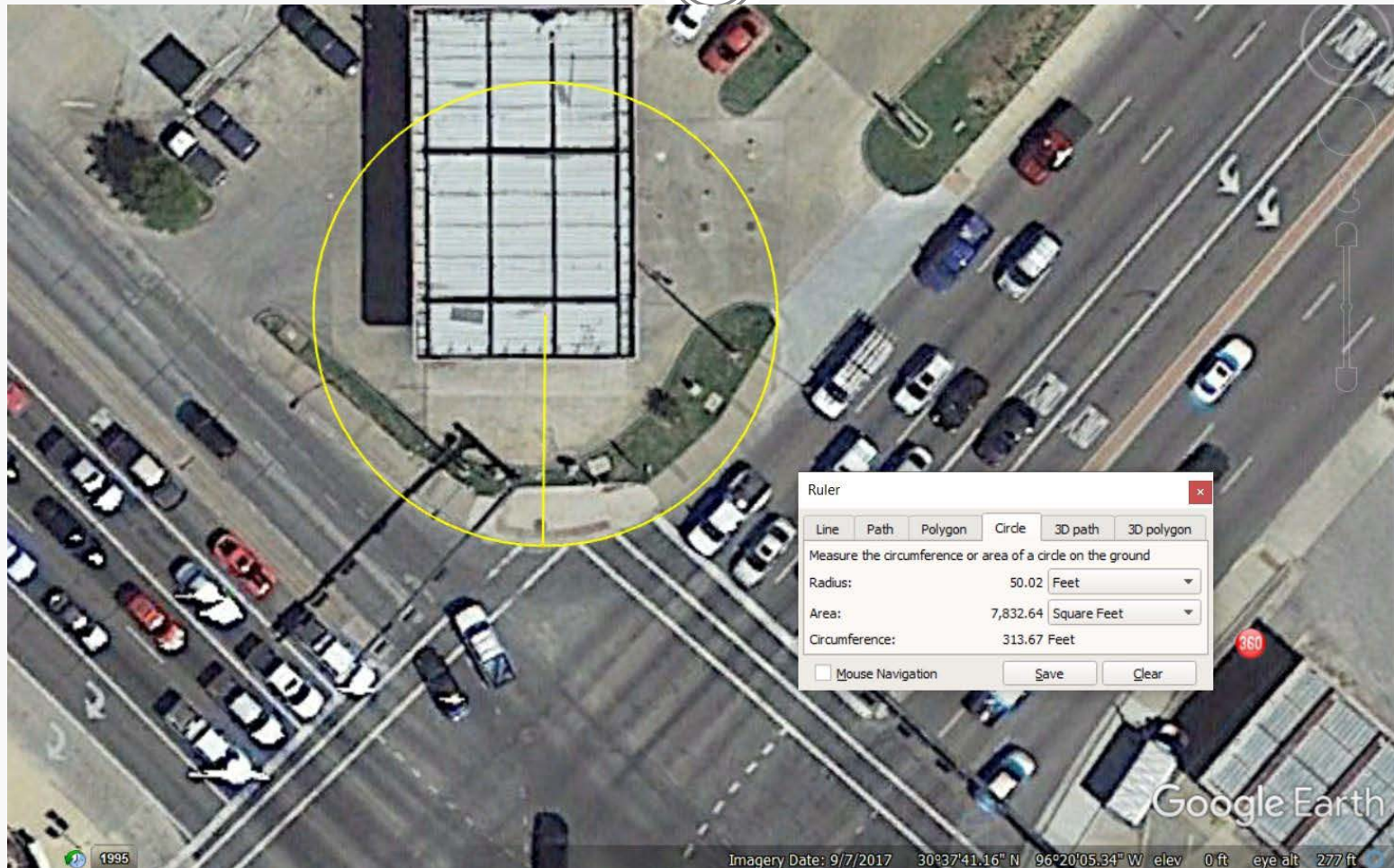


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CMF for Right-Turn Radius Measurement

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Original Photo: 2019 © Google®. Map modifications: Source: FHWA.



Office of Human Environment Planning

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Current Research Projects:

- **Fostering Innovation in Pedestrian and Bicycle Transportation Pooled Fund Study.**
- **NHI Bicycle Facility Design Course.**
- **Multimodal Network Planning Pilot Communities.**
- **Planning Multimodal Networks in a Connected and Automated Vehicle Future.**



Fiscal Year 2020 Proposed Focus Areas and Projects

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- Continue to prioritize Focus States and Cities.
- Champion FHWA Administrator's Pedestrian Safety Initiative.
- Update *Pedestrian and Bicycle Road Safety Audit* materials.
- Update *Pedestrian and Bicycle Crash Analysis Tool*.
- Implement STEP.
- Examine vehicle-to-pedestrian safety technologies.
- Promote/provide technical assistance for:
 - *Pedestrians and Bicyclists ScRAM*.
 - *Bikeway Selection Guide*.



Pedestrian Crossing Warning Sign with Light-Emitting Diodes (LEDs)

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- Project seeks to evaluate safety performance and develop a CMF for the W11-2 sign.
- Pedestrian Crossing Warning Sign with LEDs could be an alternative to Rectangular Rapid Flashing Beacons.



Source: FHWA



THANK YOU

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