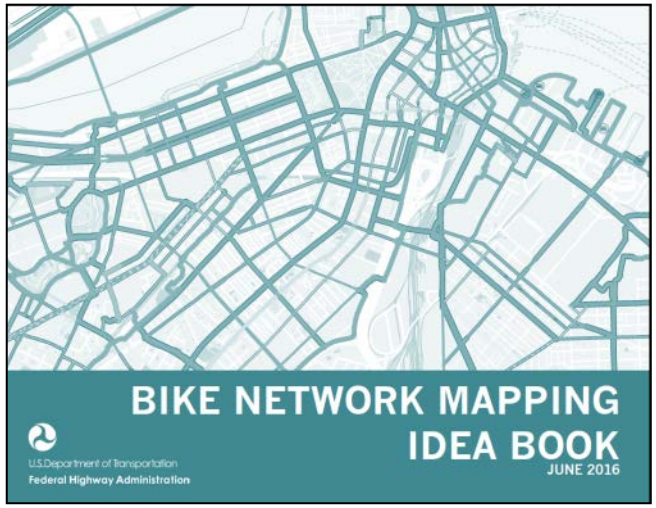
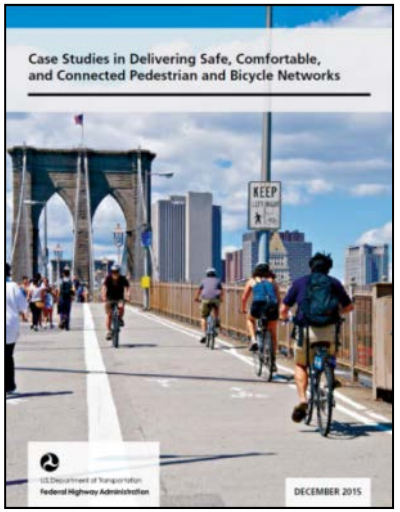
FHWA Pedestrian and Bicycle Resources

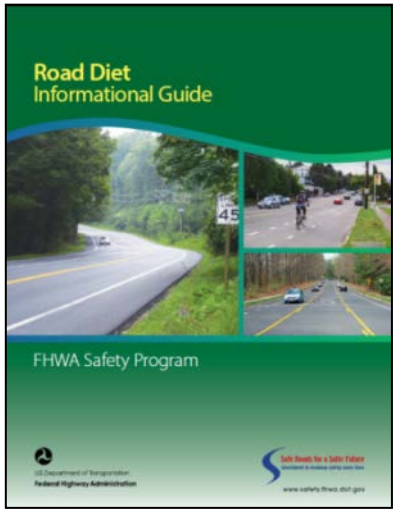
U.S.Department of Transportation

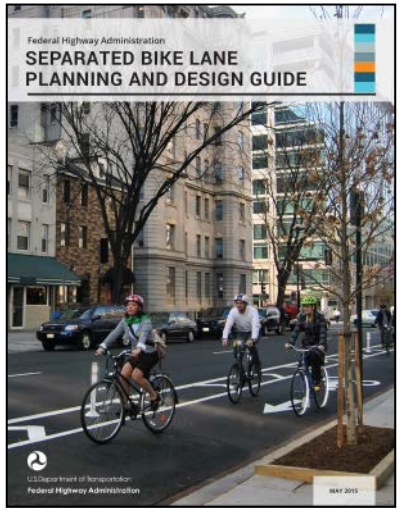
Federal Highway Administration

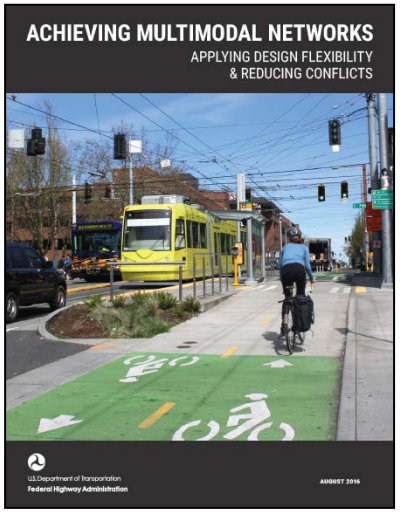
Recent FHWA Pedestrian and Bicycle Resources

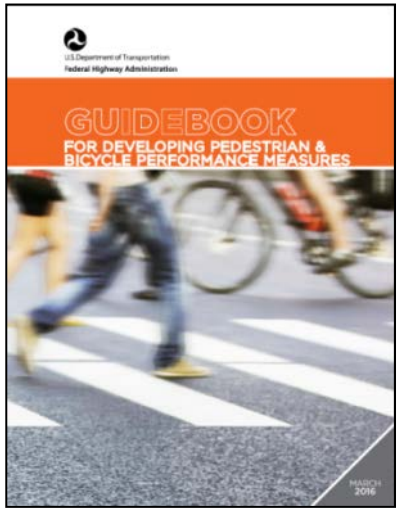












Available at http://www.fhwa.dot.gov/environment/bicycle_pedestrian

Context

Policy Statement on Bicycle and Pedestrian Accommodation

The DOT **policy is to incorporate** safe and convenient walking and bicycling facilities into transportation projects. **Every transportation agency, including DOT, has the responsibility** to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. Because of the numerous individual and community benefits that walking and bicycling provide — including health, safety, environmental, transportation, and quality of life — transportation agencies are encouraged to **go beyond minimum standards** to provide safe and convenient facilities for these modes.

Context

FHWA Support For:

- An integrated, safe, and convenient transportation system for all users
- Sustainable transportation policies and practices
- Design flexibility
- Connected pedestrian and bicycle *networks*
- Pedestrian and bicycle data
- Equity and Ladders of Opportunity
- Quality of life and livability

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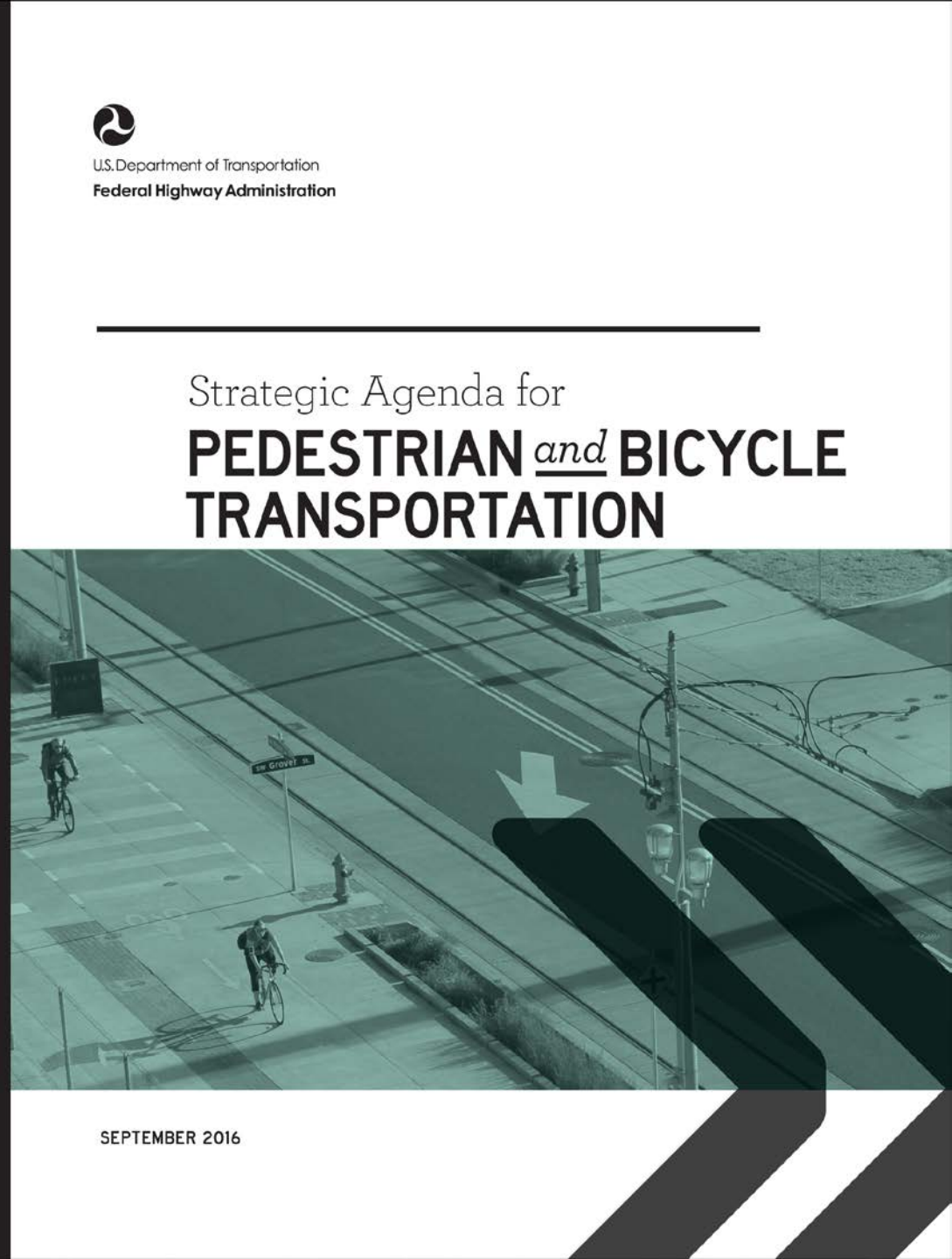


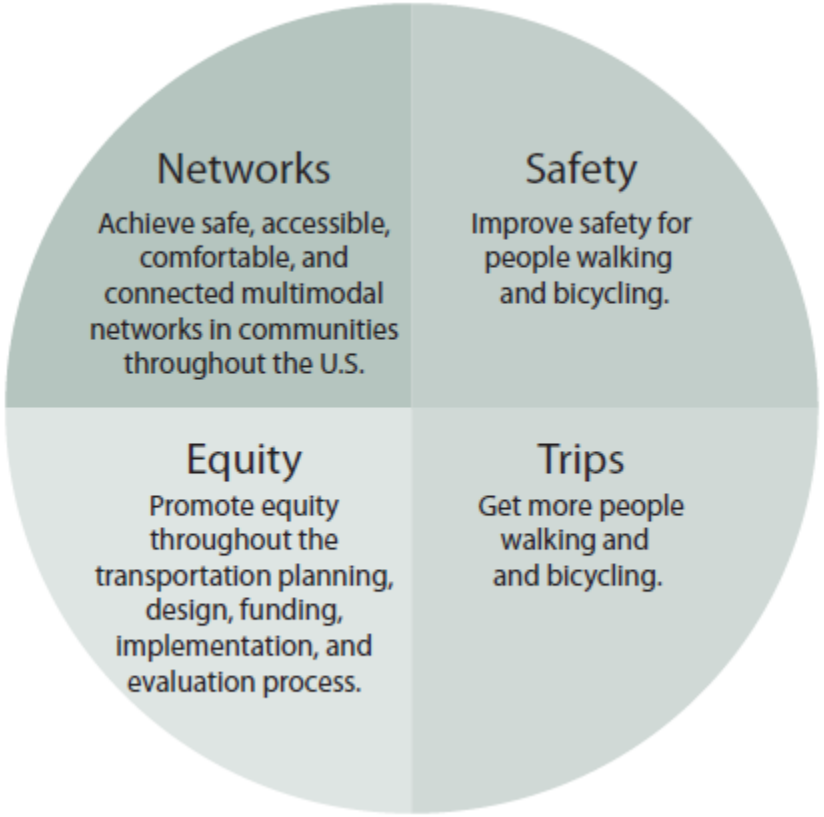
Overview

- Provides a framework for organizing existing and planned pedestrian and bicycle activities
- Emphasizes collaboration and partnerships
- Assumes a 3-5 year time horizon
- Builds on the policy statement on bicycle and pedestrian accommodations
- Demonstrates FHWA's ongoing national leadership on multimodal transportation and represents the agency's commitment to institutionalize and mainstream these issues moving forward

Planning Process

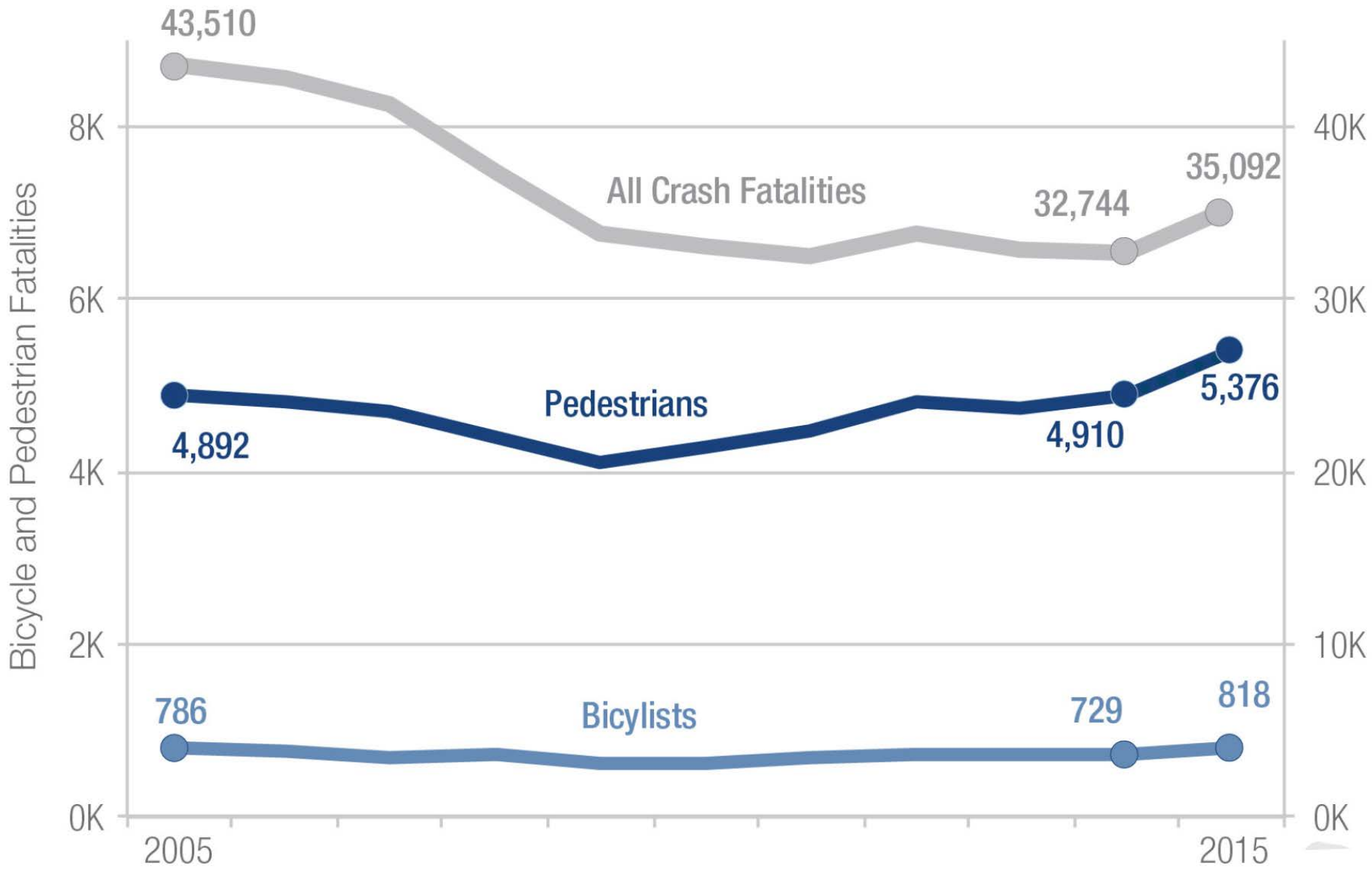
- USDOT Engagement
- External Technical Work Group
- Public Webinars
- State DOT Pedestrian and Bicycle Coordinator Engagement
- National Bike Summit
- National Walking Summit
- White Papers
  - Data
  - Research
  - Ladders of Opportunity
  - Training

Strategic Agenda for Pedestrian and Bicycle Transportation



Aspirational Goals

- Achieve an 80 percent reduction in pedestrian and bicycle fatalities and serious injuries in 15 years and zero pedestrian and bicycle fatalities and serious injuries in the next 20 to 30 years.
- Increase the percentage of short trips represented by bicycling and walking to 30 percent by the year 2025. This will indicate a 50 percent increase over the 2009 value of 20 percent. Short trips are defined as trips 5 miles or less for bicyclists and 1 mile or less for pedestrians.



Source: Fatality Analysis Reporting System (FARS)
Note: *2005-2014 Final File, 2015 Annual Report File

Goal 1: Networks

Sample Activities

- Continue to promote design flexibility
- Build capacity around recently developed resources
- Complete a comprehensive update of the Bicycle Facility Design course at the National Highway Institute
- Expand the availability and deployment of data about pedestrian and bicycle network infrastructure
- Promote coordination between FHWA, TRB, AASHTO, and others
- Establish a new Transportation Pooled Fund Study
- Complete research project on measuring network connectivity and tracking change over time
- Develop a curriculum (onboarding process) targeted to Federal, State, MPO, and local pedestrian and bicycle coordinators

Goal 2: Safety

Sample Activities

- Implement and conduct outreach on the nonmotorized measures in the safety performance measures final rule
- Complete research project on pedestrian and bicycle exposure to injuries and fatalities
- Continue to operate a National Pedestrian and Bicycle Information Center
- Develop policies and promote strategies to reduce vehicle speeds on multimodal corridors
- Continue to work with NHTSA to promote a 5 Es approach to addressing safety issues
- Promote STEP as part of EDC-IV

Goal 3: Equity

Sample Activities

- Promote USDOT equity-related resources
- Proactively encourage MPOs and State DOTs to address equity as part of the planning process
- Educate agencies on funding sources for pedestrian and bicycle projects that advance equity, connectivity, and Ladders of Opportunity principles
- Develop guides and case studies on incorporating equity metrics into Federal, State, regional, and local pedestrian and bicycle performance measurement programs
- Promote Community Connections as a part of EDC-IV
- Identify issues and promote opportunities to advance equity as part of the Every Place Counts Design Challenge

Goal 4: Trips

Sample Activities

- Establish the Traffic Monitoring and Analysis System (TMAS) as a national repository of pedestrian and bicycle volume data in order to track trends, conduct research, and develop the basis for comprehensive performance measurement of nonmotorized modes
- Continue to educate stakeholders on sources of Federal funds that may be used to support nonmotorized counting programs
- Continue to work with CDC and others to implement the *Surgeon General's Call to Action to Promoting Walking and Walkable Communities*

Push Innovation

Fill gaps in knowledge and practice

Research new topics and emerging issues

Encourage experimentation and flexibility

Facilitate Transportation Pooled Fund Study

Build Capacity

Update and promote planning, design, and safety resources

Reach out to partners about policies, funding eligibility, and common misconceptions

Convene peer exchanges and on-site assessments

Launch Center for Pedestrian and Bicycle Transportation

Get Results

Networks: Achieve safe, comfortable, connected networks

Equity: Promote equity throughout planning, design, funding, and implementation

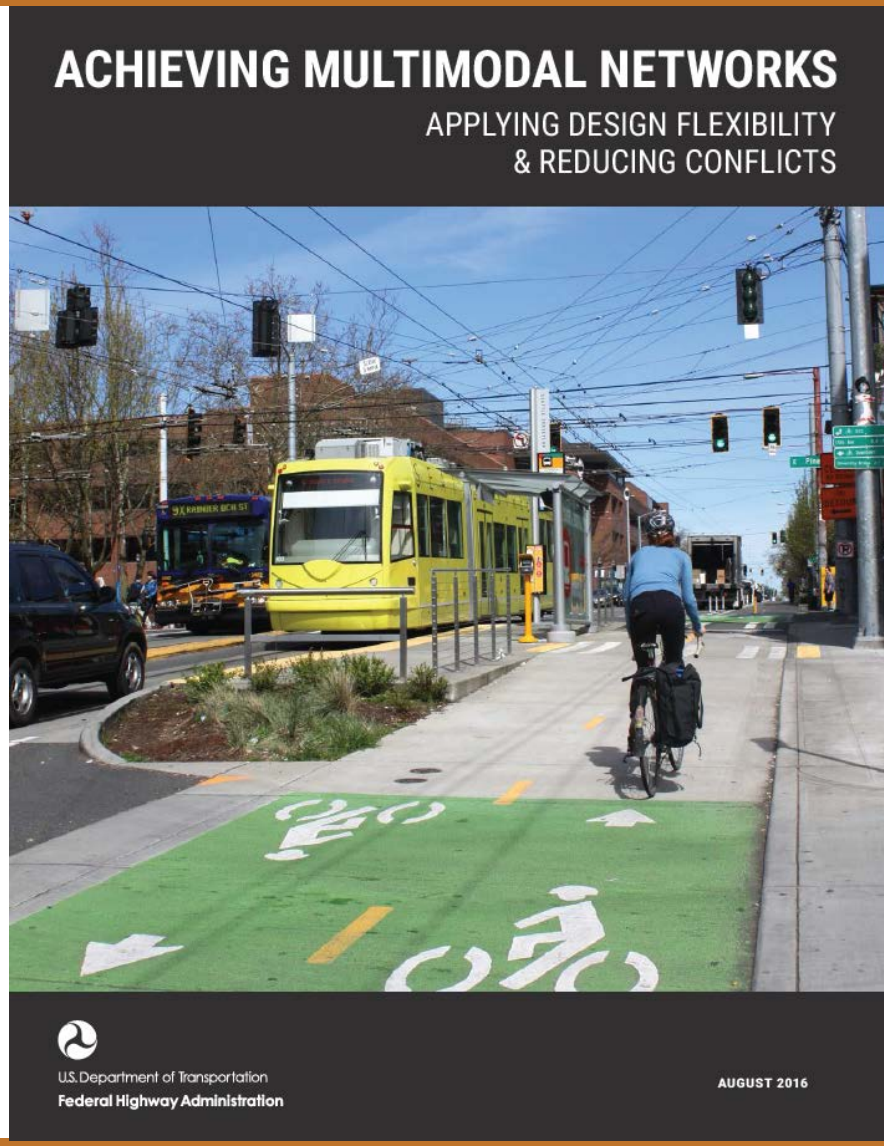
Safety: Improve safety for people walking and bicycling

Trips: Get more people walking and bicycling


pro walk
pro bike
pro place

Achieving Multimodal Networks: Applying Design Flexibility and Reducing Conflicts

- Highlights ways to apply design flexibility, while focusing on reducing multimodal conflicts and achieving connected networks
- Help practitioners address topics such as:
  - Intersection design
  - Road diets
  - Pedestrian crossing treatments
  - Transit and school access
  - Freight
  - Accessibility



Available at http://www.fhwa.dot.gov/environment/bicycle_pedestrian

Achieving Multimodal Networks: Applying Design Flexibility and Reducing Conflicts

PART 1: APPLYING DESIGN FLEXIBILITY

PART 2: REDUCING CONFLICTS

Available at http://www.fhwa.dot.gov/environment/bicycle_pedestrian

Layout of Design Topics

SHARED STREETS

Source: Peyton Chung (Creative Commons)

Shared streets, also called flush streets or woonerfs, prioritize pedestrian and bicycle movement by slowing vehicular speeds and communicating clearly through design features that motorists must yield to all other users. Shared streets use various design elements to blur the boundary between pedestrian and motor vehicle space. The design should create conditions where pedestrians and bicyclists can walk or ride on the street and cross at any location, as opposed to at designated locations. This encourages cautious behavior on the part of all users, which in turn reinforces slower speeds and comfortable walking and bicycling conditions.

By slowing the travel speed of all modes, shared streets encourage social interaction and lingering. They support a variety of adjacent land uses including commercial and retail, entertainment venues, restaurants, offices, and residences, while still accommodating commercial loading and transit operations. Shared streets have also been shown to increase economic vitality and vibrancy.

FHWA encourages additional research and best practice review for shared streets, specifically relating to accessibility. Potential topics include existing European planning and guidance, design techniques to distinguish pedestrian-only and shared space, effects of surface materials (e.g., pavers, cobblestones, etc.), interpretation of hard versus soft edges, and impacts of grates, slopes, and

COMMON USERS IN CONFLICT AND TYPICAL CRASH TYPES

Poor communication to all users on shared streets can contribute to crashes.

SAFETY
The design should enc and severit

ACCOMM
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COHEREN
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PREDICTA
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CONTEXT
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EXPERIM
Shared stre space for p

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DESIGN STRATEGIES

DESIGN SPEED

Shared streets are considered self-enforcing roads, designed and operated primarily for pedestrian traffic. Designs for shared streets should lead to slow vehicular speeds. The maximum design speed should not exceed 20 mi/h. However, the preferred design speed is between 10 and 15 mi/h. For more information, refer to the design topics on **Traffic Calming and Design Speed** and **Slow Streets**.

VOLUME CONSIDERATIONS

Local access streets with relatively high pedestrian demands tend to be good candidates for shared street treatments. Shared streets should have no more than 100 vehicles during the peak hour for pedestrians to feel comfortable sharing the road with motorists (**FHWA Pedestrian Safety Guide and Countermeasure Selection System 2013**). If volumes exceed this threshold, designers can consider restricting access for specific vehicle types to reduce volumes. If vehicular volumes are too high, pedestrians will avoid the middle part of the street. Depending on the role of the shared street in the transportation network, personal vehicles may be directed to alternative routes; while taxis and freight and transit vehicles are allowed. Emergency access should be maintained on shared streets.

INTERSECTION CONSIDERATIONS

At intersections, designers should consider traditional marked crosswalks and detectable warning surfaces in order to alert pedestrians of potential vehicular conflicts. Consider alerting drivers entering the shared street of the intended use of the space and the appropriate speed by using gateway features such as signs, raised crossings (1), raised intersections, or curb extensions. For more information, refer to the design topic on **Intersection Geometry**. Signs should be warning signs with the wording such as SHARED STREET. (2) An advisory speed plaque can supplement the warning sign. Signs should comply with the **MUTCD**.

ALLEYWAYS

Alleyways are typically narrow streets behind buildings providing service access. They feature relatively low vehicular volumes and may operate unofficially as shared streets. Shared alleyways make the space more accessible for all users. Removing curbs and adding gateway treatments can help alert users of the shared space. Designers can also use paving treatments such as permeable pavements to assist with stormwater management. All paving surfaces must meet pedestrian accessibility requirements. (3)

MULTIPURPOSE SHARED STREETS

Shared streets offer a great deal of flexibility in how the space is designed and used. Without vertical curbs, the street can be closed to offer space for events, or more comfortably provide outdoor seating space for cafés and restaurants. Designers have several options for drainage design and the delineation of space. Through the thoughtful use of urban design principles, these streets can enhance the sense of place and emphasize the pedestrian and bicycle priority of the street.

A multipurpose shared street allows different uses of the space on different days of the week, times of day, or seasons, extending the public space at times of celebration, special events, or festivals. Sidewalks, parking, and vehicle travel lanes can be available at various times. Movable planters, metal barricades, or signs can regulate the use of the space on a temporary or regularly scheduled basis. (4)

REMOVING VERTICAL CURBS

Typically, shared streets do not use vertical curbs—the entire street surface is flush, with minimal separation between sidewalks and the travel way. While vertical curbs discourage motor vehicle encroachment, they have limited ability to prevent a vehicle from driving onto the sidewalk. There are several techniques available to designers to control drainage and help delineate the roadway edge, which are typical uses of curbs.

CONSIDERATIONS

- Surface or pavement materials of varying textures, patterns, and colors provide visual cues for each mode. Trench grates can provide a visual and tactile distinction between pedestrian-only space and space where motorists may be present. Vertical elements such as lighting, bollards, street trees, planters, and furnishings can also delineate the space.
- Stormwater can be captured without vertical curbs through proper grading and drainage techniques. A valley gutter can be provided along a flush curb, such as between parking and the travel way. Valley gutters can convey stormwater to inlets or to green infrastructure such as tree pits or rain gardens that may also provide shade and vegetation.

108 SHARED STREETS

3 ALLEYWAY

4 MULTIPURPOSE STREET

ACCESSIBILITY

Shared streets should be designed carefully for people with disabilities. This can be done by providing a frontage zone along buildings where a traditional sidewalk is located. The frontage zone can be delineated with different paving treatments, drainage infrastructure, trees, street furniture, art, or parking. Paving textures in the frontage zone should be smooth and vibration free, with a minimum of 5 feet clear space. For more information, refer to the design topic on **Accessibility**.

SHARED STREETS

CASE STUDIES

WINTHROP STREET
CAMBRIDGE, MA

Many streets in Cambridge were first constructed centuries ago in constrained rights-of-way with narrow sidewalks that do not meet accessibility standards. As a result, pedestrians tend to walk within the roadway on these streets. The City's regulations allow for shared streets in which vehicular traffic mixes with bicyclists, pedestrians, and loading activity. These streets are designed for motorists to yield to pedestrians, use caution, and travel slowly. Winthrop Street is designed so that the sidewalk and roadway are flush. Pedestrian-only space is delineated from space where vehicles are permitted by different-colored pavers, flush curbing, bollards, and planters. Movable planters are also used to close the street to vehicular traffic at certain times of day.

FIRST STREET NORTH
JACKSONVILLE BEACH, FL

First Street is a beachfront destination, running parallel to the Atlantic Ocean and providing access to Jacksonville Beach, residences, restaurants, shops, and hotels. The City of Jacksonville Beach decided to implement the shared street concept by removing road markings and putting vehicles at the same plane as pedestrians. The street has pedestrians, vehicles, and bicyclists on even footing, with equal rights to the street. This causes drivers to slow and give way to other users.

As an additional benefit of the flush condition, the street creates universal access without the need for designated curb ramps. The City felt this was an important feature for accessibility as well as for those visiting the beach with coolers, chairs, and strollers.

FOR MORE INFORMATION

American Association of State Highway and Transportation Officials. *A Policy on the Geometric Design of Highways and Streets*. 2011.

American Association of State Highway and Transportation Officials. *Guide for the Planning, Design, and Operation of Pedestrian Facilities*. 2004.

Federal Highway Administration. *Manual on Uniform Traffic Control Devices*. 2009.

Federal Highway Administration. "Pedestrian Safety Guide and Countermeasure Selection System: Shared Streets." Last modified August 2013. http://pedbikesafe.org/PEDSAFE/countermeasures_detail.cfm?CM_NUM=67.

National Association of City Transportation Officials. *Urban Street Design Guide*. 2013.

United States Access Board. *Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way*. 2011.

110 SHARED STREETS

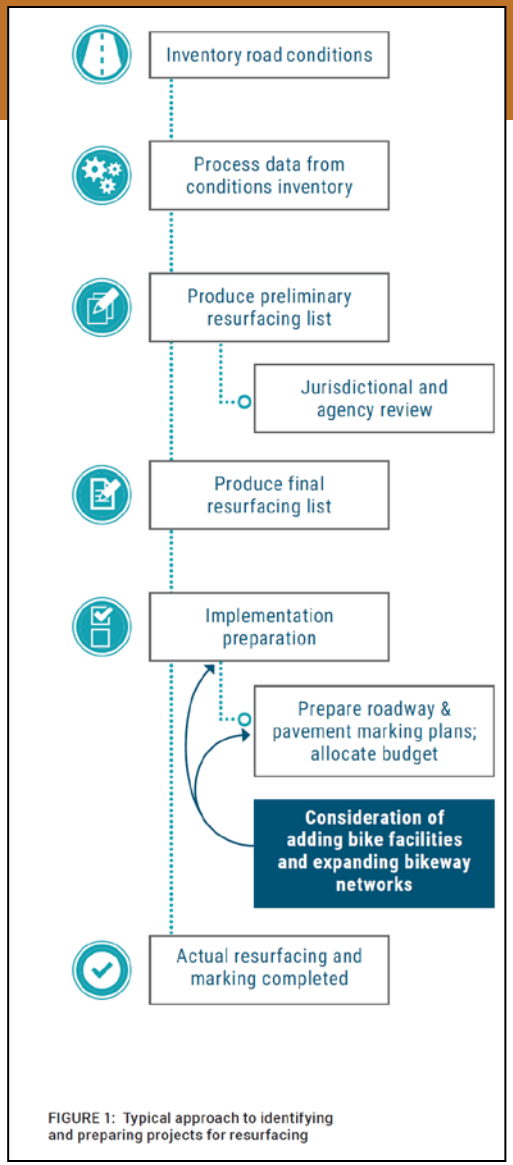


FIGURE 1: Typical approach to identifying and preparing projects for resurfacing

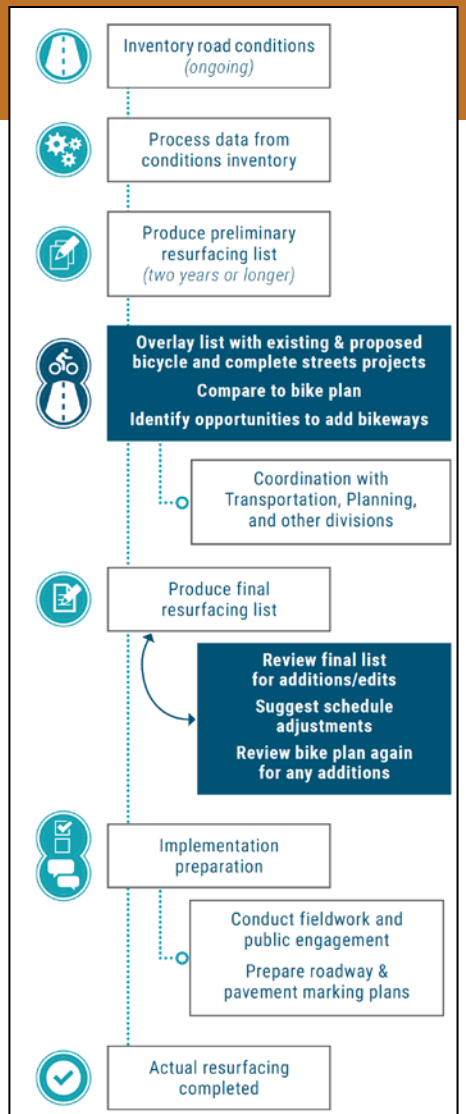
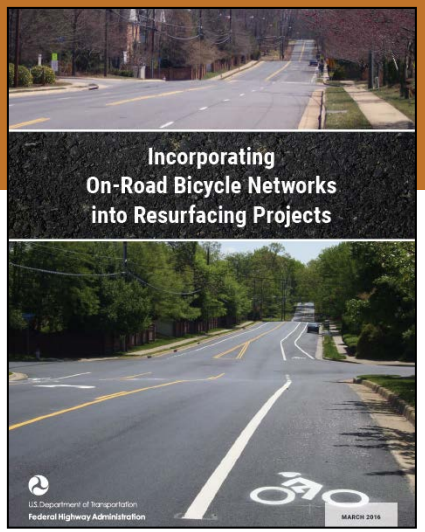


FIGURE 2: The recommended resurfacing process identifies opportunities to add bicycle facilities early in the process.



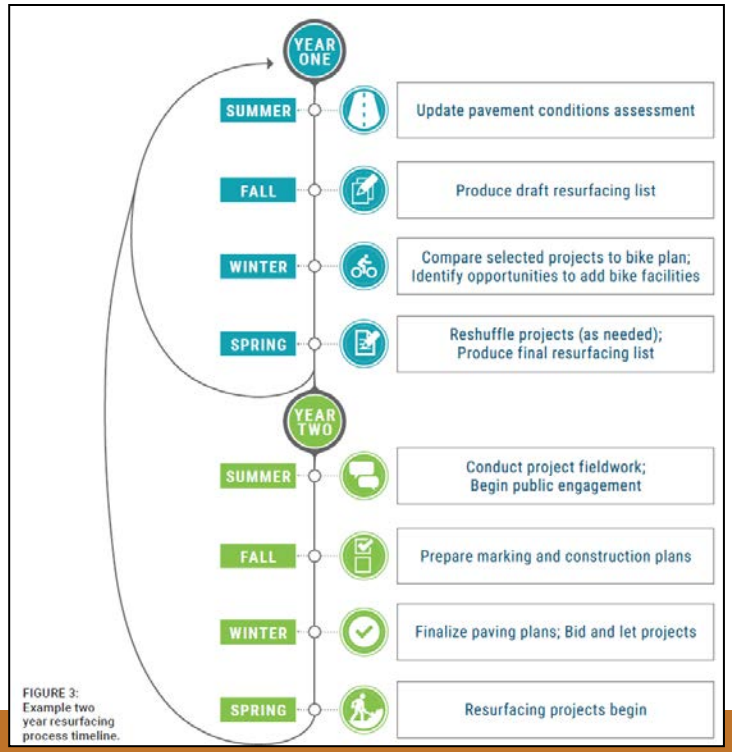


FIGURE 3: Example two year resurfacing process timeline.

MAP BASICS

Common approaches for bicycle infrastructure planning maps are highlighted below. The maps that follow demonstrate these general approaches to varying degrees.

(1) COMMON INFORMATION LAYERS

BIKE NETWORK LAYERS

Specific Facility Types

- Bike path, bike lane, buffered bike lane, bike boulevard, separated bike lane, greenway, etc.

OR

Flexible Facility Types

- On-street vs. off-street bikeway systems

LOCAL CONTEXT LAYERS

- Transit lines & stations
- Bikeshare stations
- Community amenities: Schools, universities, libraries, community centers, hospitals etc.
- Building footprints
- Specific land use functions, such as commercial uses
- Study areas or corridors

BASE LAYERS

- Parks & open space
- Streets
- Waterbodies
- City boundaries
- Labels

(2) REPRESENTING DIFFERENT TYPES OF INFORMATION

PROPOSED VS. EXISTING NETWORK

- Identify ways to clearly denote what is existing and what is being proposed.

Outline — existing, proposed

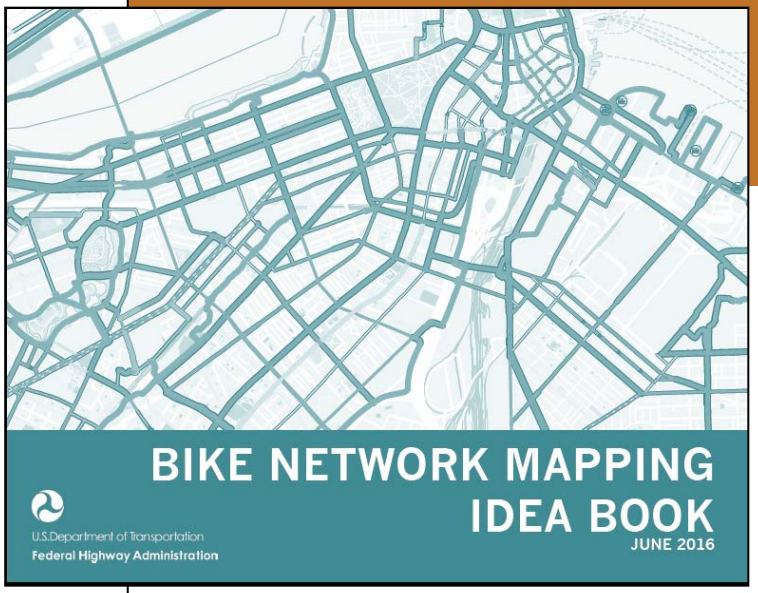
Dashed — exi…, pro…

COLOR SCHEME

- Consider how color will play a role in highlighting the bicycle network. Bright, saturated colors stand out against softer and more subdued

LEVEL OF INFORMATION

- Carefully consider the amount of information used to tell the story. More information can help, but it can also be overwhelming if not



HENNEPIN COUNTY, MN

LOCATION	YEAR	PUBLICATION	RESPONSIBLE AGENCY
HENNEPIN COUNTY, MN	2016	HENNEPIN COUNTY BIKE PLAN	HENNEPIN COUNTY

Full Map (Click to view full size)

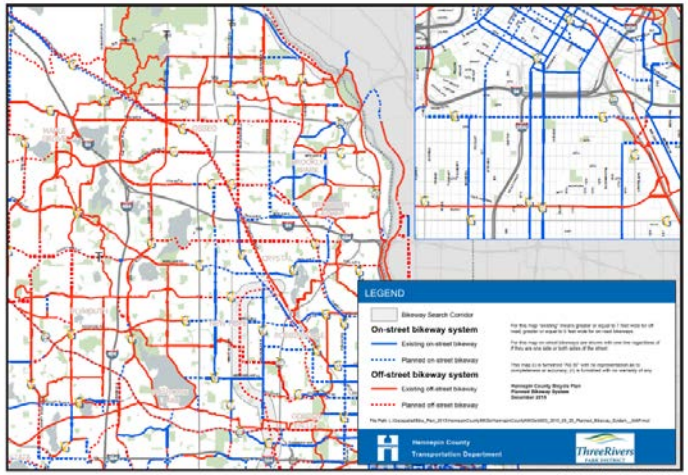
KEY MAP FEATURES

Simple symbology - Two colors and two line types

Map focuses on county and state roads. Local roads not shown to improve legibility.

Downtown area is shown in more detail for closer inspection

COUNTY



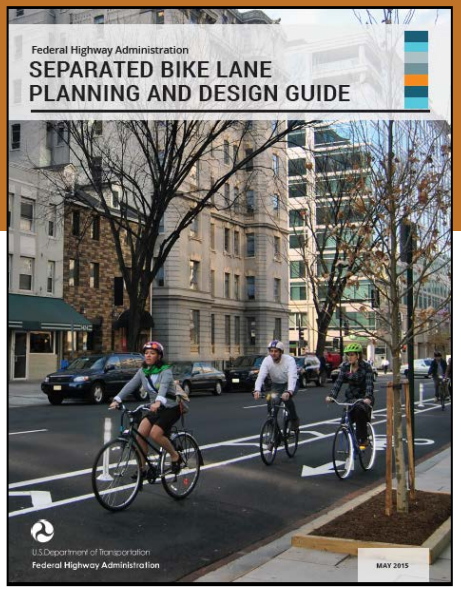
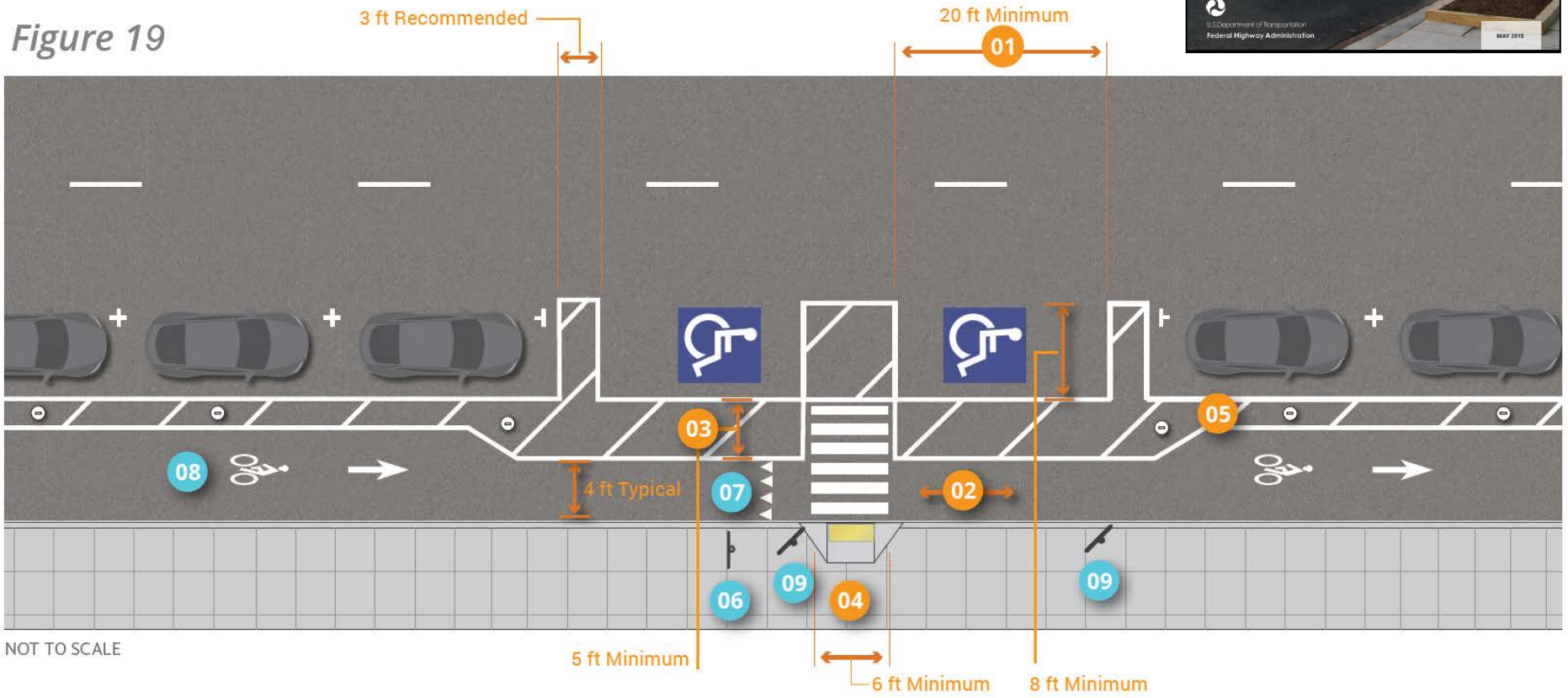

Federal Highway Administration
SEPARATED BIKE LANE
PLANNING AND DESIGN GUIDE
U.S.Department of Transportation
Federal Highway Administration
MAY 2015

Figure 19


3 ft Recommended
20 ft Minimum
01
03
05
08
4 ft Typical
07
02
06
09
04
09
NOT TO SCALE
5 ft Minimum
6 ft Minimum
8 ft Minimum

U.S.Department of Transportation
Federal Highway Administration

GUIDEBOOK
FOR PEDESTRIAN & BICYCLE PERFORMANCE MEASURES

MAR
2016

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Performance Measures Toolbox

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ACCESS TO JOBS
DENSITY OF DESTINATIONS
POPULATION SERVED BY WALK/BIKE/TRANSIT
PROPORTION OF TRANSPORTATION-DISADVANTAGED POPULATION SERVED
HEALTH

Travel Characteristics
AVERAGE TRAVEL TIME
AVERAGE TRIP LENGTH
LEVEL OF SERVICE
MODE SPLIT
PEDESTRIAN AND BICYCLE VOLUME
PEDESTRIAN/BICYCLE DELAY
PERSON THROUGHPUT
VEHICLE MILES TRAVELED (VMT) IMPACTS

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NETWORK COMPLETENESS
ROUTE DIRECTNESS

Economic Impacts
JOB CREATION
LAND VALUE
RETAIL IMPACTS

Environmental
LAND CONSUMPTION
PEDESTRIAN SPACE
PRESENCE OF STREET TREES

NETWORK COMPLETENESS

The portion of the transportation network that is usable for people walking or bicycling, and represents the minimum accommodations needed for a facility to be considered part of the walking or bicycling network.

GOALS

- CONNECTIVITY (X)
- ECONOMIC (X)
- ENVIRONMENT (X)
- EQUITY (X)
- HEALTH (X)
- LIVABILITY (X)
- SAFETY (X)

RELATED MEASURES

"Connectivity Index"

"Miles of Pedestrian/ Bicycle Facilities"

"Pedestrian Space"

"Route Directness"

CONTEXT

PERFORMANCE MEASURE APPLICATION

PROJECT PRIORITIZATION

A measure of network completeness can be used to prioritize projects that fill crucial gaps or meet unaddressed needs for walkers and bicyclists.

ALTERNATIVES COMPARISON

When comparing design options, an agency may consider how two or more possible configurations contribute to a more complete transportation network for those walking or biking.

SCENARIO EVALUATION (POSSIBLE)

Network Completeness can be applied in evaluating future scenarios of potential transportation investments and land use changes.

BENCHMARKING

An agency can report change over time through regular updates to inventories of intersection treatments, bicycle facilities, and sidewalks.

STANDARD

A performance baseline related to network completeness may call for a given percentage of the network to be completed each year or for a given percentage of sidewalks to meet ADA standards by a given year.

GEOGRAPHY	PREFERRED	POSSIBLE
STATE	X	
REGION	X	
LOCAL	X	

LAND USE CONTEXT	PREFERRED	POSSIBLE
URBAN	X	
SUBURBAN	X	
RURAL		X

DATA NEEDS & SOURCES

Inventory data for:

- Roadways.
- Sidewalks.
- Bike facilities.
- Pavement markings.
- Signs.
- Signals.

HOW TO TRACK

In some cases, agencies set a threshold for what qualifies as complete based on the context of the street (e.g., wider sidewalks in commercial areas or separated bike lanes in higher traffic conditions).

System completeness can be defined and measured in a variety of ways:

- Percent of roadway miles with complete sidewalks or bicycle facilities on both sides.
- Percent of planned pedestrian or bicycle network that is constructed.
- Percent of pedestrian or bicycle or roadway system that serves pedestrian and bicycle users ages 8 to 80.
- Percent of signalized intersections that have complete pedestrian and bicycle facilities, such as detection, push buttons or pedestrian-recall, striped crossings.
- Percent of sidewalk facilities accessible to users of all abilities.
- Percent of arterial and collector roadways with crossing opportunities every XX miles.

System completeness and inventory information can be reported as an aggregate measure (e.g., total miles of bike lanes) or stored in a GIS database.

PEERS TRACKING THE MEASURE

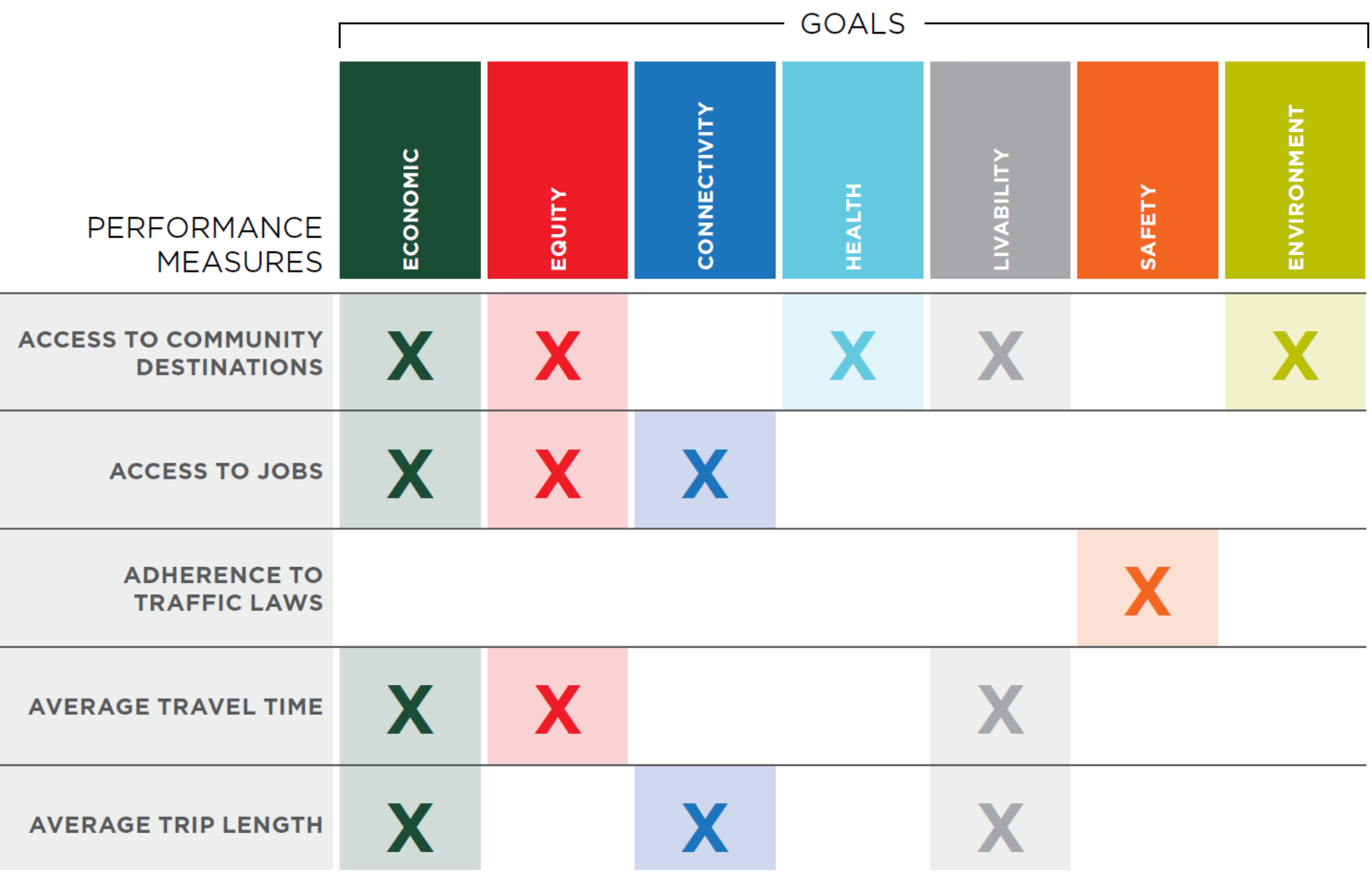
- Most agencies maintain an inventory of sidewalk, crosswalk, and/or bicycle lane infrastructure.
- A number of agencies, including the City of Oakland (California), the City of Boulder (Colorado), Montgomery County (Maryland), and Delaware DOT measure network connectivity using the Level of Traffic Stress method.[48] LTS is an effective measure for assessing the completeness of a network, particularly because it highlights all streets that are appropriate for the "interested but concerned" bicycling demographic. LTS also highlights areas of concern where the network is not complete and uncomfortable for less experienced bicyclists.

NOTES

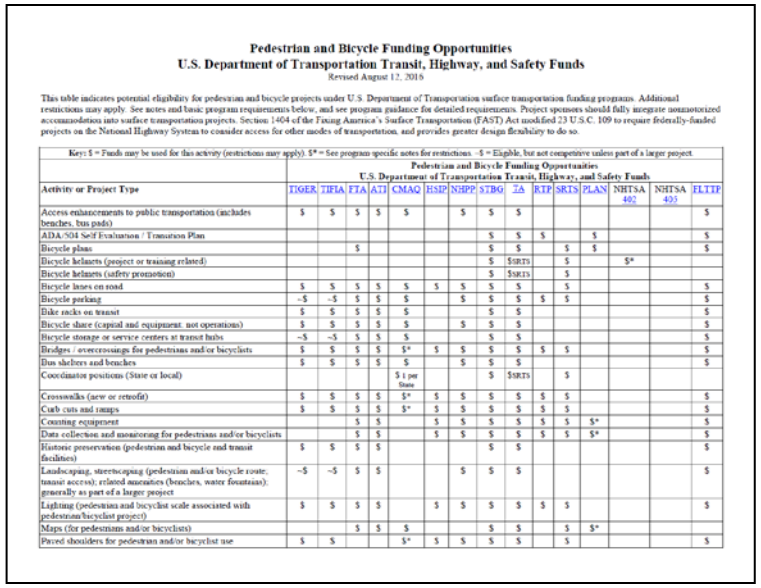
Completeness can be a subjective term and should be explicitly defined. For example, a minimum width of a sidewalk should be identified to qualify as part of a complete system.

Collecting inventory data can be time consuming and expensive, and some agencies lack documentation on pedestrian and bicycle infrastructure. With ever improving photographic inventories such as third party aerial photography and street-level photo inventories, agencies may be able to collect bulk information much more easily.

Network Completeness can be tied in with agencies' ADA Transition Plans, which require DOTs and other agencies to identify barriers to access for persons with disabilities.


GOALS
PERFORMANCE MEASURES
ECONOMIC
EQUITY
CONNECTIVITY
HEALTH
LIVABILITY
SAFETY
ENVIRONMENT
ACCESS TO COMMUNITY DESTINATIONS
ACCESS TO JOBS
ADHERENCE TO TRAFFIC LAWS
AVERAGE TRAVEL TIME
AVERAGE TRIP LENGTH

Other Resources

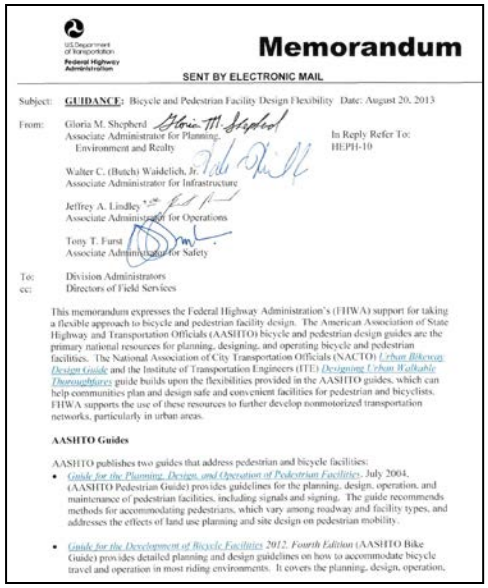


Pedestrian and Bicycle Funding Opportunities
U.S. Department of Transportation Transit, Highway, and Safety Funds
Revised August 12, 2016

This table indicates potential eligibility for pedestrian and bicycle projects under U.S. Department of Transportation surface transportation funding programs. Additional restrictions may apply. See notes and basic program requirements below, and see program guidance for detailed requirements. Project sponsors should fully integrate nonmotorized accommodation into surface transportation projects. Section 1404 of the Fixing America's Surface Transportation (FAST) Act modified 23 U.S.C. 109 to require federally-funded projects on the National Highway System to consider access for other modes of transportation, and provides greater design flexibility to do so.

Key: $ = Funds may be used for this activity (restrictions may apply). $* = See program specific notes for restrictions. ~$ = Eligible, but not competitive unless part of a larger project.

	Pedestrian and Bicycle Funding Opportunities U.S. Department of Transportation Transit, Highway, and Safety Funds														
Activity or Project Type	TIGER	TIFIA	FTA	ATI	CMAQ	HSIP	NHPP	STBG	TA	RTP	SRTS	PLAN	NHTSA 402	NHTSA 403	FLTTP
Access enhancements to public transportation (includes benches, bus pads)	$	$	$	$	$			$	$	$					$
ADA/504 Self Evaluation / Transition Plan									$	$		$			$
Bicycle plans			$						$		$	$			$
Bicycle helmets (project or training related)									$	$IRTS		$		$*	
Bicycle helmets (safety promotion)									$	$IRTS		$			
Bicycle lanes on road	$	$	$	$	$	$	$	$	$			$			$
Bicycle parking	~$	~$	$	$	$			$	$	$	$	$			$
Bike racks on transit	$	$	$	$	$				$	$					$
Bicycle share (capital and equipment, not operations)	$	$	$	$	$			$	$	$					$
Bicycle storage or service centers at transit hubs	~$	~$	$	$	$				$	$					$
Bridges / overcrossings for pedestrians and/or bicyclists	$	$	$	$	$*	$	$	$	$	$	$	$			$
Bus shelters and benches	$	$	$	$	$			$	$	$					$
Coordinator positions (State or local)					$ 1 per State				$	$IRTS		$			
Crosswalks (new or retrofit)	$	$	$	$	$*	$	$	$	$	$	$				$
Curb cuts and ramps	$	$	$	$	$*	$	$	$	$	$	$				$
Counting equipment			$	$		$	$	$	$	$	$	$*			$
Data collection and monitoring for pedestrians and/or bicyclists			$	$		$	$	$	$	$	$	$*			$
Historic preservation (pedestrian and bicycle and transit facilities)	$	$	$	$				$	$						$
Landscaping, streetscaping (pedestrian and/or bicycle route, transit access); related amenities (benches, water fountains); generally as part of a larger project	~$	~$	$	$			$	$	$						$
Lighting (pedestrian and bicyclist scale associated with pedestrian/bicyclist project)	$	$	$	$		$	$	$	$	$	$				$
Maps (for pedestrians and/or bicyclists)			$	$	$			$	$		$	$*			
Paved shoulders for pedestrian and/or bicyclist use	$	$			$*	$	$	$	$		$				$



U.S. Department of Transportation
Federal Highway Administration

Memorandum

SENT BY ELECTRONIC MAIL

Subject: **GUIDANCE:** Bicycle and Pedestrian Facility Design Flexibility Date: August 20, 2013

From: Gloria M. Shepherd
Associate Administrator for Planning, Environment and Realty

In Reply Refer To: HEPH-10

Walter C. (Butch) Waidelich, Jr.
Associate Administrator for Infrastructure

Jeffrey A. Lindley
Associate Administrator for Operations

Tony T. Furst
Associate Administrator for Safety

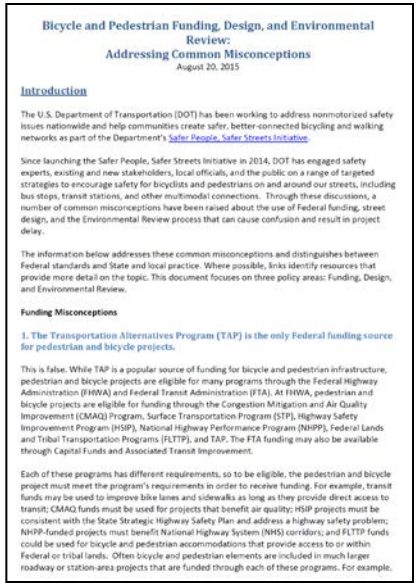
To: Division Administrators
cc: Directors of Field Services

This memorandum expresses the Federal Highway Administration's (FHWA) support for taking a flexible approach to bicycle and pedestrian facility design. The American Association of State Highway and Transportation Officials (AASHTO) bicycle and pedestrian design guides are the primary national resources for planning, designing, and operating bicycle and pedestrian facilities. The National Association of City Transportation Officials (NACTO) *Urban Bikeway Design Guide* and the Institute of Transportation Engineers (ITE) *Designing Urban Walkable Thoroughfares* guide builds upon the flexibilities provided in the AASHTO guides, which can help communities plan and design safe and convenient facilities for pedestrian and bicyclists. FHWA supports the use of these resources to further develop nonmotorized transportation networks, particularly in urban areas.

AASHTO Guides

AASHTO publishes two guides that address pedestrian and bicycle facilities:

- *Guide for the Planning, Design, and Operation of Pedestrian Facilities*, July 2004, (AASHTO Pedestrian Guide) provides guidelines for the planning, design, operation, and maintenance of pedestrian facilities, including signals and signing. The guide recommends methods for accommodating pedestrians, which vary among roadway and facility types, and addresses the effects of land use planning and site design on pedestrian mobility.
- *Guide for the Development of Bicycle Facilities 2012, Fourth Edition* (AASHTO Bike Guide) provides detailed planning and design guidelines on how to accommodate bicycle travel and operation in most riding environments. It covers the planning, design, operation,



Bicycle and Pedestrian Funding, Design, and Environmental Review:
Addressing Common Misconceptions
August 20, 2015

Introduction

The U.S. Department of Transportation (DOT) has been working to address nonmotorized safety issues nationwide and help communities create safer, better-connected bicycling and walking networks as part of the Department's Safer People, Safer Streets Initiative.

Since launching the Safer People, Safer Streets Initiative in 2014, DOT has engaged safety experts, existing and new stakeholders, local officials, and the public on a range of targeted strategies to encourage safety for bicyclists and pedestrians on and around our streets, including bus stops, transit stations, and other multimodal connections. Through these discussions, a number of common misconceptions have been raised about the use of Federal funding, street design, and the Environmental Review process that can cause confusion and result in project delay.

The information below addresses these common misconceptions and distinguishes between Federal standards and State and local practice. Where possible, links identify resources that provide more detail on the topic. This document focuses on three policy areas: Funding, Design, and Environmental Review.

Funding Misconceptions

1. The Transportation Alternatives Program (TAP) is the only Federal funding source for pedestrian and bicycle projects.

This is false. While TAP is a popular source of funding for bicycle and pedestrian infrastructure, pedestrian and bicycle projects are eligible for many programs through the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA). At FHWA, pedestrian and bicycle projects are eligible for funding through the Congestion Mitigation and Air Quality Improvement (CMAQ) Program, Surface Transportation Program (STP), Highway Safety Improvement Program (HSIP), National Highway Performance Program (NHPP), Federal Lands and Tribal Transportation Programs (FLTTP), and TAP. The FTA funding may also be available through Capital Funds and Associated Transit Improvement.

Each of these programs has different requirements, so to be eligible, the pedestrian and bicycle project must meet the program's requirements in order to receive funding. For example, transit funds may be used to improve bike lanes and sidewalks as long as they provide direct access to transit; CMAQ funds must be used for projects that benefit air quality; HSIP projects must be consistent with the State Strategic Highway Safety Plan and address a highway safety problem; NHPP-funded projects must benefit National Highway System (NHS) corridors; and FLTTP funds could be used for bicycle and pedestrian accommodations that provide access to or within Federal or tribal lands. Often bicycle and pedestrian elements are included in much larger roadway or station-area projects that are funded through each of these programs. For example,

PBIC

PEDSAFE

BIKESAFE

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For More Information:
www.fhwa.dot.gov/environment/bicycle_pedestrian