Introductions & Welcome
Chapter 1: Purpose of the Guide

The Federal Highway Administration’s Bikeway Selection Guide is a resource to help transportation practitioners consider and make informed trade-off decisions relating to the selection of bikeway types.
It is intended to supplement planning and engineering judgment.
It incorporates and builds upon FHWA’s support for design flexibility to assist transportation agencies in the development of connected, safe, and comfortable bicycle networks that meet the needs of people of all ages and abilities.
Big issue with every guide: what facility type to choose...

...and what if you can’t get your first choice?
Chapter 2: Bikeway Selection Process

Policy
Planning
Selection
Design
Section 2: Bikeway Selection Policy

2. Bikeway Selection Policy

A transportation agency’s policies can help to define a vision for the transportation network. They can also support consistence in the implementation of projects that meet the needs of all users. Policies can address a broad range of topics, such as bikeway planning, project development, planning, design, accessibility, and maintenance. Policies are also useful to guide and prioritize the acceptable trade-offs. The following section highlights examples of how policies can provide context and serve as a framework for the bikeway planning and selection process.

Policies relating to bikeway selection can:

1. Define specific goals and expectations for the bicycle network. For example, an agency may establish a policy stating that the primary bicycle network should serve the “interested but concerned” user type and/or be designed to support a target bicycle mode share (see page 13).

2. Make the linkage between bikeway selection and broader goals for multimodal access and safety. Vision Zero policies and related “Road to Zero” or “Toward Zero Deaths” initiatives can specifically reference bikeway selection as a strategy for reducing fatalities and serious injuries. Policies can explain how bikeway selection occurs as part of all transportation activities and funding programs. They can also explain the relationship between broader goals for level of service (LOS) and the project’s defined purpose. For example, as part of the long-range planning process, an agency can establish a desired LOS for bicyclists and identify the bikeway types that will achieve it.

3. Include specific funding criteria for bicycle infrastructure projects. Policies can establish specific funding criteria for projects because they can help define the priorities of the agency. For example, the agency may set a minimum required standard for bicycle accessibility in order to fund any project.

4. Provide a transparent framework for prioritizing and programming transportation projects, including specific bikeway types. Policies can promote transparency in decision-making processes to prioritize funding transportation projects and programs.

5. Define different planning contexts and decision considerations used to select desired bikeways. Roadways pass through a broad range of land use development contexts, such as rural areas and urban centers. An agency’s policies for bikeway selection must clearly describe planning context and highlight relevant factors such as topography, curbside uses, geographic distribution of destinations, local plans, and traffic characteristic. Policies can also address access requirements and guidelines. For example, agencies can demonstrate how people with disabilities will cross a separated bike lane.
Chapter 2: Establish Bikeway Selection Policy

Example:

Define specific goals and expectations for the bicycle network.

- Increase bicycling?
- Improve safety?

Reconfigure streets and intersections to improve safety and operations

Continue building the enhanced bikeway network and the amenities that support it (bicycle detection, parking), and phase implementation to ensure connectivity.

20 miles of bikeways/year

Figure 2: How Denver commutes versus Denver traffic deaths

- 79%**
- 42%
- 38%
- 15%
- 5%
- 7%
- 7%
- Other*

* Includes motorcycle commuting
** Includes driving alone and carpooling

Source: U.S. Census Bureau (2011-2015); DPD (2011-2016)
Chapter 2: Establish Bikeway Selection Policy

The Dutch Approach to Safety and Bikeway Selection

Between the 1950s and 1970s, the Netherlands and the United States began an intense period of auto-centric planning. The resulting increases in motor vehicle travel led to a steady increase in transportation related fatalities. In 1972 transportation-related fatalities peaked in both countries. Improvements in roadway design, vehicle design, and medical care since the early 1970s have led to decreases in fatalities between 1972 and 2011, and between 1972 and 2017, as shown in Table 1 below.

<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>United States</td>
<td>54,589</td>
<td>40,100 (-26.6%)</td>
</tr>
<tr>
<td>Netherlands</td>
<td>3,506</td>
<td>613 (-82.5%)</td>
</tr>
<tr>
<td></td>
<td>32,367 (-40.7%)</td>
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</tr>
</tbody>
</table>

The Most Effective Features of Sustainable Safety

The Dutch Sustainable Safety program includes traditional reactive strategies to address crashes that have occurred as well as efforts to improve vehicle design. The improved safety outcomes, however, are largely obtained by the preventative approach to roadway design which strives to prevent serious crashes, and where crashes do occur, to minimize the risk of severe

Sustainable Safety Principles:

- Functionality
- Homogeneity
- Predictability
- Forgiveness
- State Awareness
Chapter 2: Establish Bikeway Selection Policy

Define goals, expectations, and metrics for success

Tie to multimodal network standards
  - e.g., Complete Streets, Sustainable Safety, Vision Zero

Make project prioritization transparent

Assess project-level feasibility

Proactively address maintenance
Section 2: Bikeway Selection Policy

Establish Policy

Section 3: Bikeway Selection Planning

Plan

Identify Project Purpose (Choose Design User)

Identify Corridor or Project

Vision

At the core of the planning process is a vision for a future bicycle network. The vision is developed through a planning process and is typically documented in a local, regional, or state plan. The vision describes desired future characteristics of and outcomes for bicycle transportation and typically defines, explicitly or implicitly, the target bicyclist design user type (as described on page 13).

The vision for the bike network can inform planning-related activities, such as decisions regarding where an agency chooses to pave shoulders and transportation recommendations in a small area plan. It should also be integrated into planning discussions about large scale transportation initiatives and plans for other types of networks, such as transit and freight.

To strengthen the vision, an agency may set it into policy. Agencies may consider adoption of the Safe Systems or Sustainable Safety policy, as described in the previous pages, which applies to all transportation decisions. In this case, the agency might prioritize the most vulnerable road users above other transportation objectives. These priorities inform the planned network and specific objectives for each transportation improvement project.

The Bicycle Network

A bicycle network is a seamless interconnected system of bikeways. The purpose and quality of the network depends on the assumptions, goals, and decisions made during the planning process. Networks should be thoughtfully planned and designed, incorporating considerations related to safety and efficiency, as well as the needs of bicyclists and pedestrians. The bicycle network informs bikeway type selection, where higher quality facilities are needed. This project is designed to serve a critical network, including the appropriate bike infrastructure as part of the project. A lower quality project is implemented as a regular bike lane on a busy suburban arterial. The truck traffic is a missed opportunity to build a new bike network that serves a greater population. The opportunity to make a high-quality investment may not occur again for decades. While this bike network improvement over no bike facility, it will be the most beneficial for those who already use the area.

Similarly, if a project is planned to be built in a known bike corridor or on a less traveled road, the network helps communities be strategic about implementation, while also helping to balance the network needs, such as for transit and freight. Staff and advocates set priorities by recognizing an individual street or does not serve the same network and that some are more important than others. The bike network also helps to determine the extent to which a route (described on page 34) is a feasible alternative.
Chapter 3: Bikeway Selection Planning

Vision
The Bicycle Network
Target Design User
Bikeway Types
Road Context
Project Type and Purpose

Bicycle Network Vision Statements

Massachusetts Department of Transportation Statewide Bike Plan Vision
Massachusetts’ integrated and multimodal transportation system will provide a safe and well-connected bicycle network that will increase access for both transportation and recreational purposes. The Plan will advance bicycling statewide as a viable travel option - particularly for short trips of three miles or less - to the broadest base of users and free of geographic inequity.
Policy Example: Boulder Complete Streets

Complete Streets and Vision Zero integrated as part of Boulder Transportation Master Plan
Policy Example: NCDOT Complete Streets

- Adopted in 2009
- Updated in 2019
- Specifies exceptions
- Exception review by Committee members
- No local cost if in a local plan

<table>
<thead>
<tr>
<th>Complete Street Cost Share</th>
<th>In Plan</th>
<th>Not in Plan, but Need Identified</th>
<th>Betterment</th>
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</thead>
<tbody>
<tr>
<td>Facility Type</td>
<td></td>
<td></td>
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<td>Pedestrian Facility</td>
<td>NCDOT pays full</td>
<td>Cost Share</td>
<td>Local</td>
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<td>Bicycle Facility</td>
<td>NCDOT pays full</td>
<td>NCDOT pays full</td>
<td>Local</td>
</tr>
<tr>
<td>Side Path</td>
<td>NCDOT pays full</td>
<td>Cost Share</td>
<td>Local</td>
</tr>
<tr>
<td>Greenway Crossing</td>
<td>NCDOT pays full</td>
<td>Cost Share</td>
<td>Local</td>
</tr>
<tr>
<td>Bus Pull Out</td>
<td>NCDOT pays full</td>
<td>Cost Share</td>
<td>Local</td>
</tr>
<tr>
<td>Bus Stop (pad only)</td>
<td>NCDOT pays full</td>
<td>Cost Share</td>
<td>Local</td>
</tr>
</tbody>
</table>
Policy Example: Austin Vision Zero

• Adopted in 2016
• Annual Vision Zero Report Card for the purpose of “tracking the City’s progress towards the goal of zero deaths and serious injuries by 2025
• Integrated within Austin Strategic Mobility Plan
• Mapped out high-injury network
• Prioritized improvement needs
5 Minute Break
Planning Inputs

- Network
- Users
- Bikeway Types
- Context
Planning Inputs: Network
Chapter 3:
The Bicycle Network

Seven Principles of Bicycle Network Design

- **Safety**: The frequency and severity of crashes are minimized and conflicts with motor vehicles are limited.
- **Comfort**: Conditions do not deter bicycling due to stress, anxiety, or concerns over safety.
- **Connectivity**: All destinations can be accessed using the bicycling network and there are no gaps or missing links.
- **Directness**: Bicycling distances and trip times are minimized.
- **Cohesion**: Distances between parallel and intersecting bike routes are minimized.
- **Attractiveness**: Routes direct bicyclists through lively areas and personal safety is prioritized.
- **Unbroken Flow**: Stops, such as long waits at traffic lights, are limited and street lighting is consistent.
Network Context

The level to which the preferred bikeway type should be compromised, if compromise is necessary, should be informed by the relative importance of the segment within the larger network and the availability of alternative routes. For example, if the form of the bike network is a grid, a compromise on one segment may be acceptable given that a high-quality parallel route may be available.

In contrast, if there is only one roadway that provides access for bicyclists, for example to a downtown center, compromising on the bikeway type is less desirable.
Key Components of Pedestrian and Bicycle Network Connectivity

- Network Completeness
- Network Density
- Route Directness
- Access to Destinations
- Network Quality
Planning Inputs: Users
Chapter 3: The Bicycle Network - Design User

Key Principles

Safety
The frequency and severity of crashes are minimized and conflicts with motor vehicles are limited

Comfort
Conditions do not deter bicycling due to stress, anxiety, or concerns over safety

Connectivity
All destinations can be accessed using the bicycling network and there are no gaps or missing links

Directness
Bicycling distances and trip times are minimized

Cohesion
Distances between parallel and intersecting bike routes are minimized

Attractiveness
Routes direct bicyclists through lively areas and personal safety is prioritized

Unbroken Flow
Stops, such as long waits at traffic lights, are limited and street lighting is consistent
# Bicyclist Design User Profiles

<table>
<thead>
<tr>
<th>Interested but Concerned</th>
<th>Somewhat Confident</th>
<th>Highly Confident</th>
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</thead>
<tbody>
<tr>
<td>Often not comfortable with bike lanes, may bike on sidewalks even if bike lanes are provided; prefer off-street or separated bicycle facilities or quiet or traffic-calmed residential roads. May not bike at all if bicycle facilities do not meet needs for perceived comfort.</td>
<td>Generally prefer more separated facilities, but are comfortable riding in bicycle lanes or on paved shoulders if need be.</td>
<td>Comfortable riding with traffic; will use roads without bike lanes.</td>
</tr>
</tbody>
</table>

BICYCLIST DESIGN USER PROFILES

**Interested but Concerned**
51%-56% of the total population

Often not comfortable with bike lanes, may bike on sidewalks even if bike lanes are provided; prefer off-street or separated bicycle facilities or quiet or traffic-calmed residential roads. May not bike at all if bicycle facilities do not meet needs for perceived comfort.

**Somewhat Confident**
5-9% of the total population

Generally prefer more separated facilities, but are comfortable riding in bicycle lanes or on paved shoulders if need be.

**Highly Confident**
4-7% of the total population

Comfortable riding with traffic; will use roads without bike lanes.

Chapter 3: Bicycle Network – Design User

High Traffic Stress

Low Traffic Stress
What about Scooters and E-Bikes?
Planning Inputs: Bikeway Types
Chapter 3: The Bicycle Network - Form

Key Principles

- **Safety**: The frequency and severity of crashes are minimized and conflicts with motor vehicles are limited.
- **Comfort**: Conditions do not deter bicycling due to stress, anxiety, or concerns over safety.
- **Connectivity**: All destinations can be accessed using the bicycling network and there are no gaps or missing links.
- **Directness**: Bicycling distances and trip times are minimized.
- **Cohesion**: Distances between parallel and intersecting bike routes are minimized.
- **Attractiveness**: Routes direct bicyclists through lively areas and personal safety is prioritized.
- **Unbroken Flow**: Stops, such as long waits at traffic lights, are limited and street lighting is consistent.
SEPARATION FROM TRAFFIC

Shared-Use Path
Side Path
Separated Bike Lane
Buffered Bike Lane
Bike Lane
Shoulder
Shared Lane
Conventional Bike Lanes (High Speed and Volume Environments)
Conventional Bike Lanes (Low Speed Environments)
Buffered Bike Lanes (High Speed and Volume Environments)
Separated Bike Lane - Retrofit
Separated Bike Lane - Reconstruction
Shared Use Paths

U.S. Department of Transportation
Federal Highway Administration
Neighborhood Greenways (aka Bike Boulevards)
Low-Stress Bicycle Network

- Referred to often as an “all ages and abilities” network or a high-comfort network.
- Designed to be safe and comfortable for all users.
- Created with an emphasis on quality.
Low-Stress Bicycle Network

- Separated bike lanes and shared use paths
- Low-speed and low-volume streets with characteristics of bicycle boulevards
- By serving a broad audience, low-stress networks maximize system use. They have resulted in bicycling rates of 5 to 15 percent in the United States.
Planning Inputs: Context
Bikeway Selection Process

1. Plan
2. Identify Desired Bikeway Type
3. Assess and Refine
4. Evaluate Feasibility
5. Select Preferred Bikeway Type
Facility Selection Tools
City, Small Town, and Suburban Roadways

Identifies the preferred bikeway type.

**Design User Assumption:**
Interested but concerned cyclist

**Analysis:**
Bicycle Level of Traffic Stress
Separated Bike Lane or Shared Use Path

Bike Lane (Buffer Pref.)
Rural Roadways

Identifies the preferred shoulder width.

Design User Assumption: Confident bicyclist

Analysis: Bicycle Level of Service
Rural Roadways

<table>
<thead>
<tr>
<th>VOLUME</th>
<th>VELOCITIES PER DAY</th>
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<tbody>
<tr>
<td>20k</td>
<td>8' Shoulder</td>
</tr>
<tr>
<td>10k</td>
<td></td>
</tr>
<tr>
<td>5k</td>
<td></td>
</tr>
<tr>
<td>2k</td>
<td></td>
</tr>
<tr>
<td>1.5k</td>
<td></td>
</tr>
<tr>
<td>1k</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>

SP E ED  MIL ES PE R HOURS
Rural Roadways
Rural Roadways

A graph showing the relationship between speed, volume, and shoulder size for rural roadways. The graph indicates that:
- Volumes up to 5k vehicles per day can have 8’ shoulders.
- Volumes between 5k and 10k require 10’ shoulders.
- Volumes above 10k may require a shared lane.

This information is from the U.S. Department of Transportation, Federal Highway Administration.
5 Minute Break
Assess and Refine
Bikeway Selection Process

1. Plan
2. Identify Desired Bikeway Type
3. Assess and Refine
4. Evaluate Feasibility
5. Select Preferred Bikeway Type
Preferred Bikeway Type
Urban, Urban Core, Suburban, and Rural Town Contexts

- Separated Bike Lane or Shared Use Path
- Bike Lane (Buffer Pref.)
- Shared Lane or Bike Boulevard

VOLUME: VEHICLES PER DAY
SPEED: MILES PER HOUR
Preferred Bikeway Type
Rural Context

- 10’ Shoulder
- 8’ Shoulder
- 5’ Shoulder
- Shared Lanes

VOLUME: VEHICLES PER DAY
SPEED: MILES PER HOUR
Assessing and Refining the Desired Bikeway Type

- Motor vehicle peak hour volumes
- Traffic vehicle mix
- Curbside activity (e.g., deliveries, parking turnover, transit)
- Driveway and intersection frequency
- Direction of operation
- Vulnerable populations and equity Considerations
- Network connectivity gaps
- Transit considerations (first- and last-mile connections)
Assessing and Refining
Assessing and Refining
Bikeway Selection Process

Plan

Identify Desired Bikeway Type

Assess and Refine

Evaluate Feasibility

Select Preferred Bikeway Type
Evaluating Feasibility
Finding Space for Bikeways

Project Type

- New construction
- Reconstruction (curb changes)
- Resurfacing or striping (no curb changes)

Options for reallocating roadway space
- Narrowing travel lanes
- Removing travel lanes
- One-way streets
- Reorganizing street space
- Changing street parking
Evaluating Feasibility
Evaluating Feasibility
Evaluating Feasibility
Assess Desirable Bikeway Design Values

Example for standard bicycle lanes from NACTO Urban Bikeway Guide:

**Against Curb:**
Desirable = 6’
Minimum = 4’

**Against Parking:**
Desirable = 7.5’
Minimum = 5’

Source: NACTO Bikeway Design Guide
Evaluating Feasibility
Constrained Bikeways

“The use of minimum width bikeways should be limited to constrained roadways where desirable or preferred bikeway widths cannot be achieved after all other travel lanes have been narrowed to minimum widths appropriate for the context of the roadway.”
Evaluating Feasibility
Wide Outside Lane or Bike Lane?

15 – 16’ Wide Outside Lane

Wide lanes:
• Do not improve bicycling comfort
• Encourage faster traffic
• Shared lanes have higher bike crash risk

10’ – 11’ Lane with 5’-6’ bike lane

Narrow lanes with bike lanes:
• Improve bicycling comfort
• Encourage slower traffic
• Have lower bike crash risk
• Generally do not increase motorists crash rates if on 45 mph or less roadways
Evaluating Feasibility
Door Zone Bike Lane or No Bike Lane?

Wide lanes:
- Do not improve bicycling comfort
- Encourage faster traffic
- Shared lanes have higher bike crash risk
- Parking increases bike crash risk

Narrow lanes with bike lanes:
- Improve bicycling comfort
- Encourage slower traffic
- May lower bike crash risks compared to wide lanes
Evaluating Feasibility
Evaluating Feasibility
Narrow Bike Lane or 2-Way Separated Bike Lane?

Narrow Bike Lanes:
- Improve bicycling comfort for Confident bicyclists
- Do not accommodate Interested but Concerned bicyclists

2-Way Separated Bike Lanes:
- Improve bicycling comfort for all bicyclists increasing use
- Has higher rate of bicycle crashes compared to 1-way separated bike lanes due to contra-flow movement
Door Zone Bike Lane or No Bike Lane?

Case Study: 15th Street, NW. Washington DC

Data Sources: District Department of Transportation

**Existing Shared Lanes**

2005 - 2009:
- 30 – 60 bicyclists/hour
- averaged 5 crashes/year
- Crash Risk ~ 20 crashes/million cyclists

**Option 1**

Bike Lane

Not Chosen

**Option 2 built in 2010**

Separated Bike Lane

2016:
- 350 – 400 bicyclists/hour
- averaged 10 crashes/year
- Crash Risk ~ 7 crashes/million cyclists

65% reduction in crash risk

Case Study: 15th Street, NW. Washington DC

Data Sources: District Department of Transportation
Shared Lanes
Crash Risk ~
20 crashes/million cyclists

2-Way PBL
Crash Risk ~
7 crashes/million cyclists
Chapter 4: Bikeway Selection

preferred bikeway is “infeasible”

Downgrading the bikeway type has potential impacts:

- Suppressed bicycling
- Reduced safety from:
  - Sidewalk bicycling
  - Shared lane or constrained bikeway dimensions
Chapter 4: Bikeway Selection

If the preferred bikeway is infeasible on the main route, select “the next best facility” for it as a short term measure.

*Assumption is high volume roadway with speeds > 30mph with sidepath bicyclists comfort contingent upon pedestrian volume.
Chapter 4: Bikeway Selection

Parallel routes can accommodate the Interested but Concerned if:

- It is designed for their comfort
- Detour is less than 30% in length*
- Neighborhood bikeways may require assessments of major street crossings

Bikeway Selection Process

Illustrative examples
Bikeway Selection Process

Plan

Identify Desired Bikeway Type

Assess and Refine

Evaluate Feasibility

Select Preferred Bikeway Type
Chapter 5.
Bikeway Selection in Practice

Example Case Studies to Apply the Guide Include:

- Rural Context, 2-Lane Roadway
- Small Town Context, 2-Lane Roadway
- Suburban, 4-Lane Roadway
- Suburban, 6-Lane Roadway
High-Speed 2-Lane Roadway (Base Condition)

- rural, two-way, 22-foot-wide undivided road
- popular state bicycle route connecting two small towns
- Average Daily Traffic (ADT) is 1,500 (4% trucks)
- operating speed is 45 mph
- public right-of-way extends to 10 feet on either side of the roadway
- motorists can easily change lanes to pass; however, there are locations with limited sight lines
- pedestrian volumes are expected to be low
Who is Our Design User?

- popular state bicycle route connecting two small towns
  - Confident Bicyclists?
  - Interested But Concerned?
  - Both are uncomfortable due to 45+ mph speeds
- pedestrian volumes are expected to be low
Who is Our Design User?

- popular state bicycle route connecting two small towns
  - Confident Bicyclists?
  - Interested But Concerned?
  - Both are uncomfortable due to 45+ mph speeds
- pedestrian volumes are expected to be low

Confident Bicyclists Chosen for this Example
Preferred Bikeway Type

Rural Context

- Average Daily Traffic (ADT) is 1,500 (4% trucks)
- Operating speed is 45 mph.

Design User Assumption = Confident Bicyclists
5’ Shoulder Option

- Confident cyclists are comfortable (BLOS = “B”)
- Relatively inexpensive option
- No room for rumble strips
- Interested but Concerned cyclists are uncomfortable due to 45 mph and no protection (potential suppressed bike volume)
- Pedestrians may walk in shoulder, but will not feel safe
Wide Shoulder Option

- Confident cyclists are very comfortable (BLOS = "A")
- Relatively more expensive option
- Room for rumble strips
- Interested but Concerned cyclists are uncomfortable due to 45 mph and no protection (potential suppressed bike volume)
- Pedestrians may walk in shoulder, but will not feel safe
Shared Use Path Option

- Confident cyclists are very comfortable (BLOS = “A”)
- Most expensive option
- Room for rumble strips
- Interested but Concerned cyclists are comfortable due with protection
- Pedestrians are comfortable and will feel safe, while low volume will not result in conflicts with bikes
4-Lane Suburban Roadway (Base Condition)

- 4-lane, 50-foot-wide street
- Various large business and retail parcels with busy driveways
- Average Daily Traffic (ADT) is 9,000 (2% trucks/buses)
- Operating speed is 35 mph
- Public right-of-way extends to 10 feet on either side of the roadway with continuous sidewalks that have trees and utility poles located within them.
- Expected peak hour volumes:
  - 25-50 pedestrians
  - 200-250 bicyclists

Built environment is a challenge
Who is Our Design User?

- Important retail corridor for the area with lots of destinations for work and shopping
  - Confident Bicyclists?
  - Interested But Concerned?
  - Both are uncomfortable due to 35+ mph speeds and 9,000 ADT
- Pedestrian volumes are moderate due to businesses
Who is Our Design User?

- Important retail corridor for the area with lots of destinations for work and shopping
  - Confident Bicyclists?
  - Interested But Concerned?
  - Both are uncomfortable due to 35+ mph speeds and 9,000 ADT
- Pedestrian volumes are moderate due to businesses

Interested But Concerned  Bicyclists
Chosen for this Example
Preferred Bikeway Type
Urban, Urban Core, Suburban, and Rural Town Contexts

Design User Assumption = Interested But Concerned Bicyclist

- Average Daily Traffic (ADT) is 9,000
- 2% trucks/buses
- operating speed is 35 mph
Bike Lane Option

- Road Diet gains 12’ of space for 6’ bike lane
- Confident cyclists are comfortable (BLOS = “B”)
- Relatively inexpensive option
- Motorist passing, turning easier
- Pedestrians enjoy buffer
Separated Bike Lane Option

- Road Diet gains 12’ of space for 4’ bike lane with 2’ buffer
- Relatively inexpensive option
- Interested but Concerned cyclists are comfortable (LTS 1) due to separation
- Confident cyclists are comfortable (BLOS = “A”)
- Pedestrians enjoy additional buffer
Shared Use Path Option

- Road Diet gains 12’ of space from road to create 6’-12’ buffer
- Most expensive option
- Utilities relocate to buffer and sidewalk widened to 12’-14’
- Interested but Concerned cyclists are comfortable (LTS 1) due to separation
- Confident cyclists may prefer the road due to pedestrians on the path
- If bicycle volumes increase beyond 200/hour, or pedestrians exceed 30% of users, the path can begin to conflicts between pedestrians and bicyclists may result
Putting It Into Practice
Participant Polling

Go to menti.com and
Use the code 41 45 79
Now What Type of Bikeway Would You Choose?

Posted Speed = 25 mph
Vehicle Volume = 4,000 AADT
Now What Type of Bikeway Would You Choose?

Posted Speed = 25 mph
Vehicle Volume = 14,000 AADT
Now What Type of Bikeway Would You Choose?

Posted Speed = 30mph
Vehicle Volume = 40,000 AADT
Bikeway Selection Group Discussion
Action Plan for Moving Forward

What are your next steps?