Planning for Complete Streets

April 16, 2025

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National Association of Development Organizations

NADO Research Foundation

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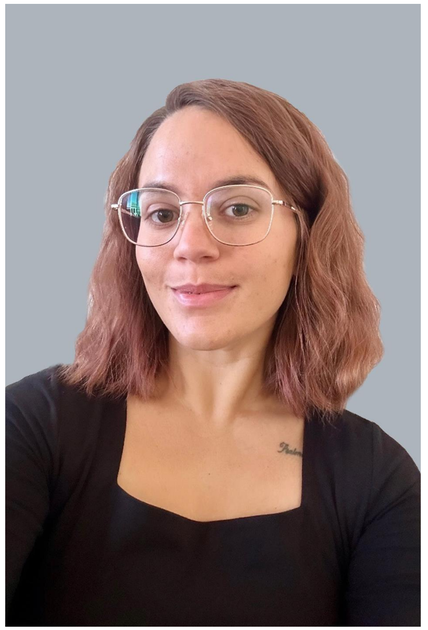

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Smart Growth America
Improving lives by improving communities

National Complete Streets Coalition

https://smartgrowthamerica.org/what-are-complete-streets/

‘Complete streets is ***an approach*** to planning, designing and building streets that enables safe access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities.’

-Smart Growth America

Planning

Statements of Intent, Desire, and Commitment

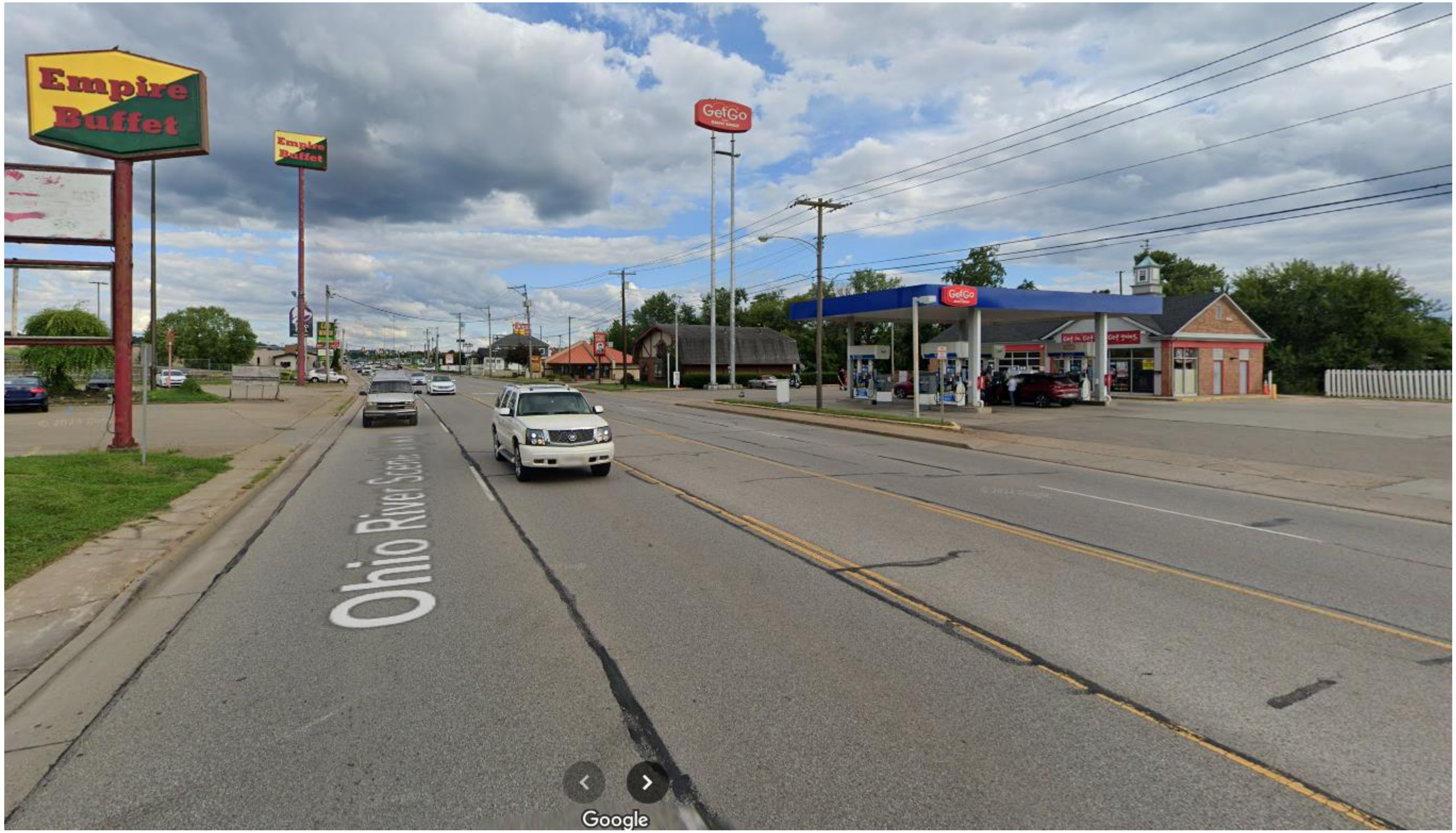
These are best summarized as local resolutions describing the existing conditions that are not desirable, what an improved future would look like, and how this would meet the needs of residents.

- Improved safety
- Improved access and options for non-automobile users
- Other improvements that meet identified needs

Challenges arise in the level of commitment intended, written, and exhibited.

Planning has to include more than streets and sidewalks.

Google Street View



Google Street View


PLACES YOU GO AND THE PROBLEMS GETTING THERE.
You marked locations on the map to tell us what makes you stay in the Eight and what are the barriers to getting there on a small scale. Here is what that looks like if we break that into larger areas that will help us focus on safety needs as well as being considerate of the destinations that are served in the area.
TRAFFIC HAZARDS
DESTINATIONS
PASS THROUGH
STAYING ZONES
BRYAN AVENUE
MAPLE AVENUE
EAST LOUDON AVENUE
Now that the Traffic Hazards have been identified what want to see if we understand what you thought were some of the best ways to mitigate these areas. In our last meeting we asked you to tell us what types of intersection treatment were most appealing to you by ranking them with colored dots. The images below are the top three you indicated you liked the best.

Designing

What would improvements look like?

What would work best to address the issues you've identified, or to create the environment you want to see?

There are no general legal requirements for Complete Streets.

There are recognitions given by FHWA to the use of Complete Streets design considerations that local jurisdictions can utilize.

https://www.fhwa.dot.gov/design/altstandards/index.cfm

Alternate Roadway Design Publications Recognized by FHWA under BIL and FAST Act

Note: Except for the statutes and regulations cited, the contents of this webpage do not have the force and effect of law and are not meant to bind the States or the public in any way. This information is intended only to provide information regarding existing requirements under the law or agency policies. The information below supersedes the FHWA memorandum, "Guidance: Bicycle and Pedestrian Facility Design Flexibility" (August 20, 2013), and the related resource, "Questions and Answers about Design Flexibility for Pedestrian and Bicycle Facilities," last updated July 25, 2014.

The publications listed below are recognized as alternate roadway design guides (publications) under section 11129 of the Bipartisan Infrastructure Law (BIL), also known as the Infrastructure Investment and Jobs Act (IIJA, Public Law 117-58), and section 1404(b) of the Fixing America's Surface Transportation Act (FAST Act, Public Law 114-94). These references can help transportation agencies plan, develop, and operate equitable streets and networks that prioritize safety, comfort, and connectivity to destinations for all people who use the street network. See additional Federal Highway Administration (FHWA) guidance on developing Complete Streets.

The FHWA supports the use of a Complete Streets design model, which prioritizes safety, comfort, and connectivity for all users of the roadway, including but not limited to pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. In general, this includes careful consideration of measures to set and design for appropriate speeds; separation of various users in time and space; improvement of connectivity and access for pedestrians, bicyclists, and transit riders; consideration of pedestrian access routes for people with disabilities; and addressing safety issues through implementation of safety countermeasures.

The recognition of, or reference to, a roadway design guide by FHWA does not mean that all designs included in the document are compliant with Federal laws and regulations, such as the Americans with Disabilities Act (ADA) or the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD). For example, some treatments may require that the procedures for Interim Approval or Request to Experiment set forth in the MUTCD be followed. **Implementing jurisdictions are responsible for ensuring compliance with State and Federal laws and regulations.**

The following publications are recognized by FHWA as potential alternate roadway design guides and may be used by a local jurisdiction meeting the requirements of 23 U.S.C. 109(o)(B) for non-NHS projects or section 1404(b) of the FAST Act for NHS projects. See memo Design Standards, FAST Act and Infrastructure Investment and Jobs Act Provisions Memo (11/16/2023) for more information.

a. Global Designing Cities Initiative (GDCI) *Global Street Design Guide*, 2016 and the *Designing Streets for Kids* supplement, 2020 - Inspired by the work in 70 cities in 40 countries on six continents, this guide reflects designs that save lives, prioritize people and transit, reflect diverse communities, and better serve everyone on the street.

b. Institute of Transportation Engineers (ITE) *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach, 2010* and the supplemental *Implementing Context Sensitive Design Handbook*, 2017 – focuses on thoroughfare design in "walkable communities," which are compact, pedestrian-scaled villages, neighborhoods, town centers, urban centers, urban cores and other areas where walking, bicycling, and transit are encouraged. It describes the relationship, compatibility, and tradeoffs that may be appropriate when balancing the needs of all users, adjoining land uses, the natural and human environment, and community interests when making decisions in the project development process. The 2017 supplement includes an expanded focus on topic areas such as freight accommodations, speed management, and context sensitive design in lower density urban and built-up suburban environments.

c. NACTO *Urban Street Design Guide*, 2013 - highlights street design strategies that prioritize safe driving and transit, biking, walking, and public activity. The guide offers direction for cities seeking to improve street design to create more inclusive, multimodal urban environments.

The following external publications may be useful references for entities wishing to follow a complete streets design model as they plan, develop, and operate equitable streets and networks that prioritize safety, comfort, and connectivity to destinations for all people who use the street network. These guides focus on a particular mode, and while they are not comprehensive roadway design guides, they can be used in conjunction with other roadway design guides to inform multimodal solutions.

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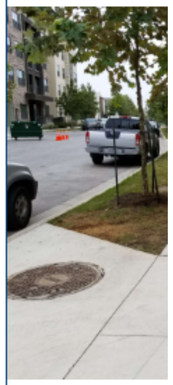
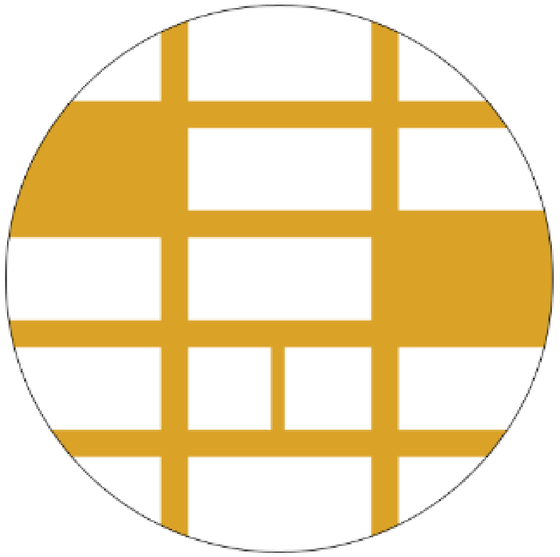
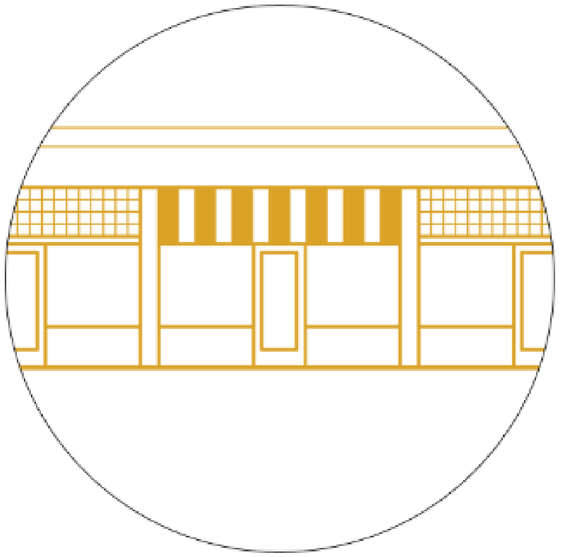
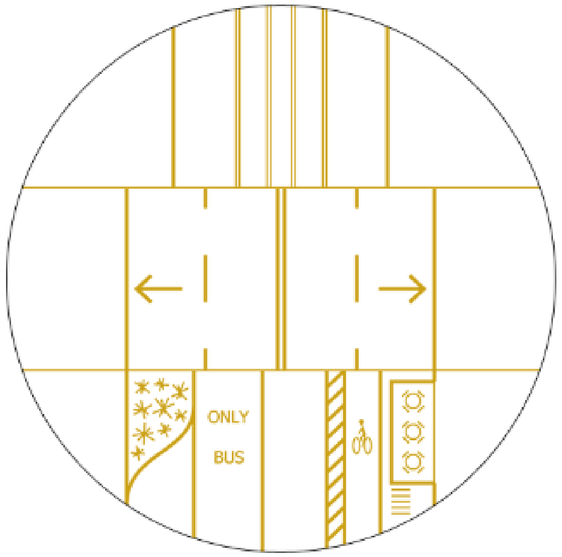




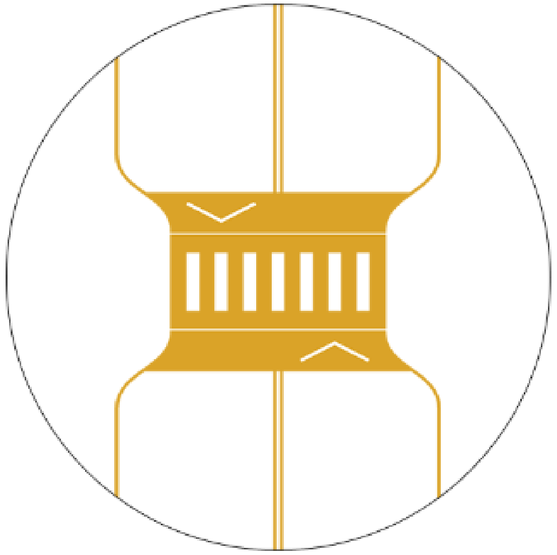
Streets Are Public Spaces



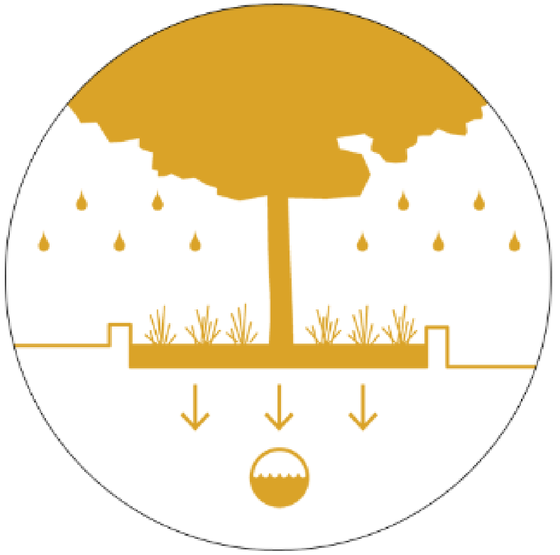
Great Streets are Great for Businesses



Streets Can Be Changed



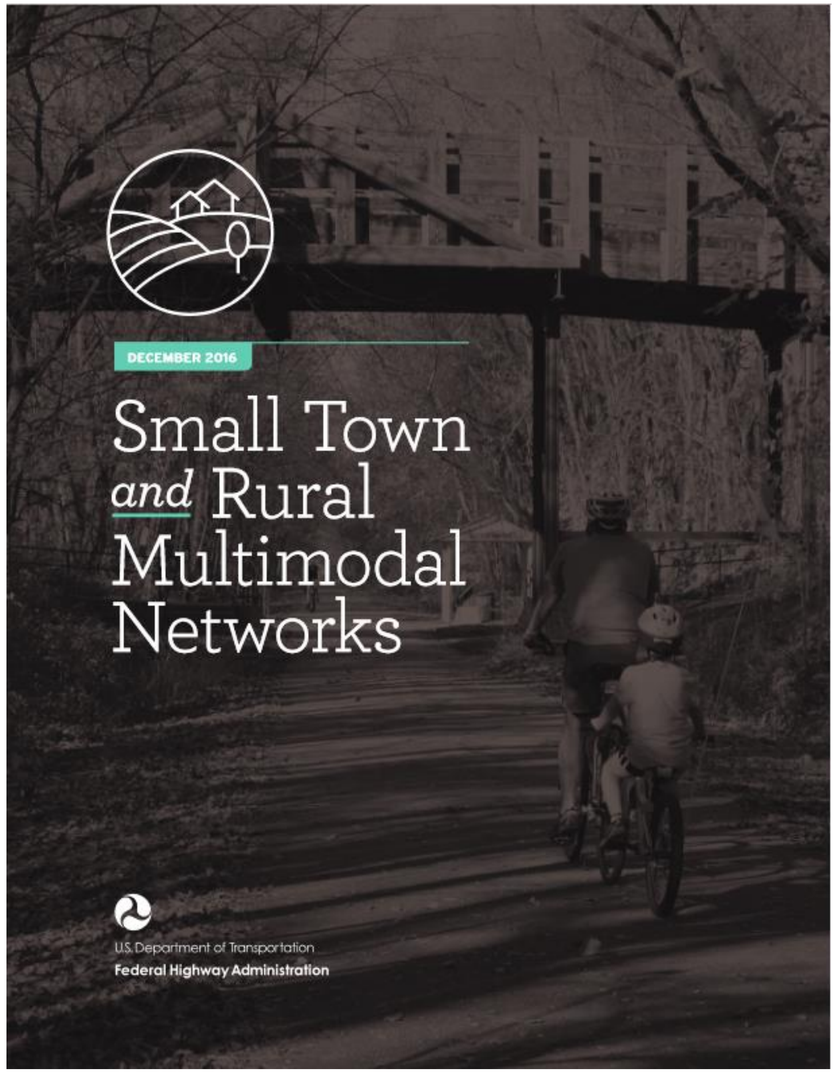
Design for Safety

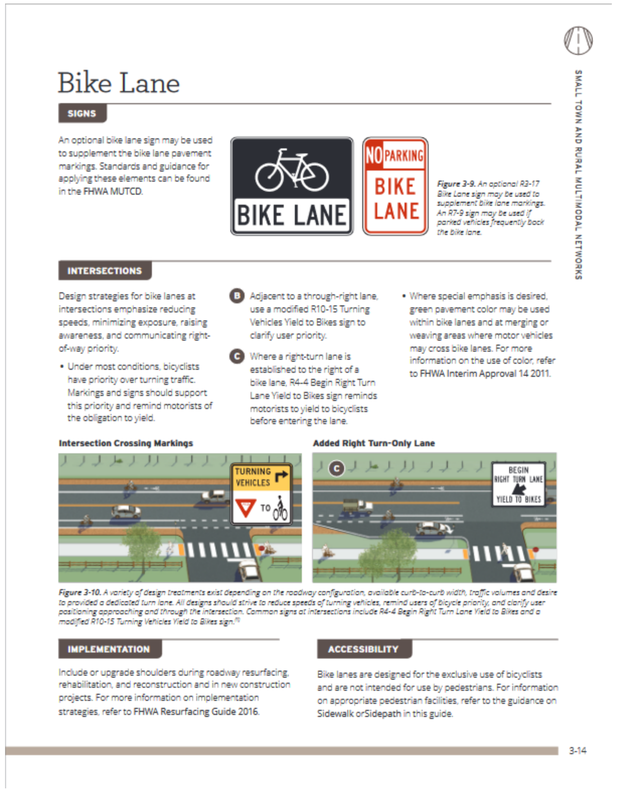


Streets Are Ecosystems

Act Now!

NACTO – Urban Street Design Guide – Street Design Principles





SMALL TOWN AND RURAL MULTIMODAL NETWORKS

Bike Lane

SIGNS

An optional bike lane sign may be used to supplement the bike lane pavement markings. Standards and guidance for applying these elements can be found in the FHWA MUTCD.

Figure 3-9. An optional R3-17 Bike Lane sign may be used to supplement bike lane markings. An R7-9 sign may be used if parked vehicles frequently block the bike lane.

INTERSECTIONS

Design strategies for bike lanes at intersections emphasize reducing speeds, minimizing exposure, raising awareness, and communicating right-of-way priority.

- Under most conditions, bicyclists have priority over turning traffic. Markings and signs should support this priority and remind motorists of the obligation to yield.

B Adjacent to a through-right lane, use a modified R10-15 Turning Vehicles Yield to Bikes sign to clarify user priority.

C Where a right-turn lane is established to the right of a bike lane, R4-4 Begin Right Turn Lane Yield to Bikes sign reminds motorists to yield to bicyclists before entering the lane.

- Where special emphasis is desired, green pavement color may be used within bike lanes and at merging or weaving areas where motor vehicles may cross bike lanes. For more information on the use of color, refer to FHWA Interim Approval 14 2011.

Intersection Crossing Markings

Added Right Turn-Only Lane

Figure 3-10. A variety of design treatments exist depending on the roadway configuration, available curb-to-curb width, traffic volumes and desire to provided a dedicated turn lane. All designs should strive to reduce speeds of turning vehicles, remind users of bicycle priority, and clarify user positioning approaching and through the intersection. Common signs at intersections include R4-4 Begin Right Turn Lane Yield to Bikes and a modified R10-15 Turning Vehicles Yield to Bikes sign.[3]

IMPLEMENTATION

Include or upgrade shoulders during roadway resurfacing, rehabilitation, and reconstruction and in new construction projects. For more information on implementation strategies, refer to FHWA Resurfacing Guide 2016.

ACCESSIBILITY

Bike lanes are designed for the exclusive use of bicyclists and are not intended for use by pedestrians. For information on appropriate pedestrian facilities, refer to the guidance on Sidewalk orSidepath in this guide.

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CHAPTER 3 | VISUALLY SEPARATED FACILITIES

CASE STUDY | BIKE LANE

Lyndonville, Vermont

PROJECT DESCRIPTION

The Lyndonville planner worked with the Vermont Agency of Transportation (VTrans) during the construction of a large repaving project through Lyndonville to incorporate bike lanes into the project. Bike lanes were incorporated on Main Street, Broad Street, and Center Street. Along Depot Street, shared lane markings are the preferred option given on-street parking. On the Main Street section of the project, the existing roadway had no parking and wide shoulders. This combination allowed VTrans to design painted buffered bike lanes.

The addition of buffered bike lanes to the already under construction paving project was possible through the use of painted buffers. In addition, green paint was added at the bike lane through the intersections to highlight the areas of potential conflict. Because of variable shoulder widths, the painted buffer has a constant width of 2 ft while the bike lane width varies between 5 and 8 ft.

DETAILS

COMMUNITY CONTEXT

Lyndonville, population 1,207, is a village within the town of Lyndon, VT. Located in Vermont's rural Northeast Kingdom, Lyndonville is home to Lyndon State College with approximately 1,400 students. Nearby Burke Mountain offers lift access downhill mountain biking, and Kingdom Trails anchors a growing network of mountain bike trails in the region.

KEY DESIGN ELEMENTS

Painted buffered bike lane with additional pavement markings.

ROLE IN THE NETWORK

The buffered bike lanes on Main Street are part of the network of on-street bike lanes and shared streets that connect the downtown businesses with residential streets and Lyndon State College.

FUNDING

The bike lanes were included as part of the paving project which was funded with 81 percent Federal funds and 19 percent State funds. Being incorporated into a planned and funded paving project meant that the additional costs for the buffered bike lanes were minimal.

For more information, refer to the Vermont Agency of Transportation: http://vtrans.vermont.gov/

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[U.S. Dept. of Transp. – FHWA – Small Town and Rural Multimodal Networks]

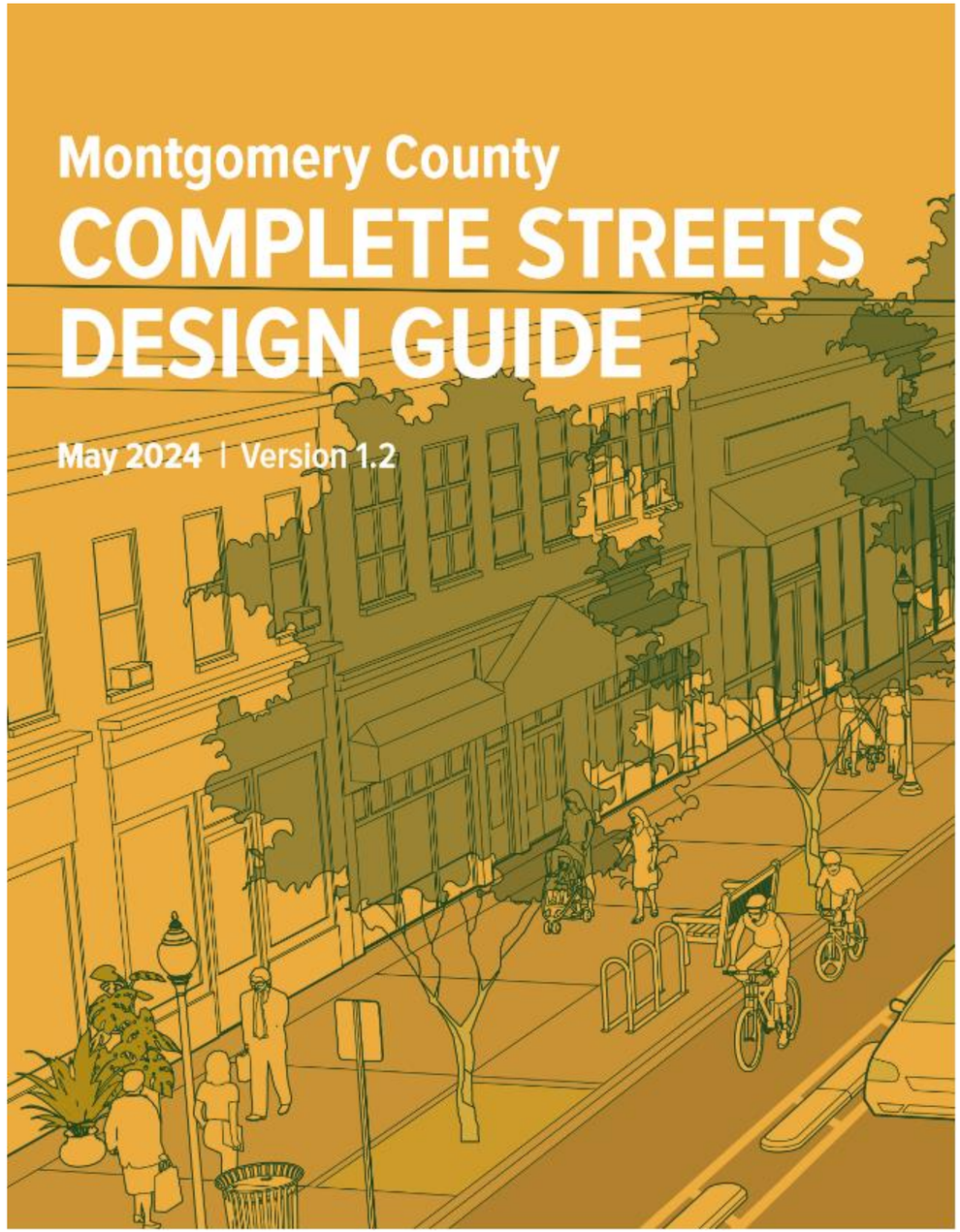
Implementing

Creating the desired environment

Some implementation can happen prior to full project selection and funding. Pop-ups and demonstrations are excellent ways to ‘test drive’ a project to gather support or identify concerns.

Quick build, small investment projects can create significant impact and generate information – before committing.

Effective Complete Streets policies will create a path toward future projects.



Street Type	Maintenance Buffer	Frontage Zone	Clear Zone	Street Buffer
Downtown Boulevard	0'	10' default; 0' min	15' default; 10' min	8' default; 6' min
Downtown Street	0'	10' default; 0' min	10' default; 8' min	6'; 11' if shared w/ street parking
Town Center Boulevard	0'	7' default; 0' min	10' default; 8' min	8' default; 6' min
Town Center Street	0'	7' default; 0' min	10' default; 8' min	6'; 11' if shared w/ street parking
Boulevard	2'	7' default; 0' min	11' default/8' min	8' default; 6' min
Area Connector	2'	0'	6' min for sidewalk or 10' default, 8' min for sidepath	6'
Neighborhood Connector	2'	0'	6' min for sidewalk or 10' default/8' min for sidepath	6'
Neighborhood Street	2'	0'	6'	6'
Neighborhood Yield Street	2'	0'	6'	6'
Industrial Street	2'	6' default; 0' min	6' min for sidewalk or 10' default/8' min for sidepath	6'
Country Connector	2'	0'	6' min for sidewalk or 10' default/8' min for sidepath	10' (if sidewalk/sidepath are provided)
Country Road	2'	0'	6' min for sidewalk or 10' default/8' min for sidepath	8' default; 6' min
Controlled Major Highway	N/A	N/A	11' default/8' min	As wide as feasible (10' min)

Figure 3-2. Active Zone dimensions (If a separated bike lane is present, a Ped/Bike Buffer is also required. See Chapter 2.) For street buffers on open section roads, see Section 3.8.

South Bend, Indiana

Marietta, Ohio

Bethlehem, New Hampshire


PED
X-ING

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