



## **STATEWIDE BICYCLE AND PEDESTRIAN ADVISORY COMMITTEE MEETING**

**October 30, 2013**

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Policies & Procedures Section Manager  
Central Office Location & Design Division

# Overview of DRPT Multimodal Design Guidelines

## Mission of the Guidelines:

The DRPT Multimodal System Design Guidelines will provide guidance on how to plan multimodal corridors, places and regions throughout the Commonwealth of Virginia. The purpose of the Guidelines is to establish common statewide principles and best practices for multimodal planning that can be used as a resource and model by local planners, engineers, designers, policy and decision makers, and anyone else engaged in multimodal planning throughout Virginia. In addition, three basic goals for the project were established at the beginning of the process as a general direction.

# Overview of DRPT Multimodal Design Guidelines

## Goals of the Guidelines:

- **Create a statewide resource for local planners, engineers, designers, policy and decision makers, and anyone else engaged in multimodal planning throughout Virginia.**
- **Identify integrated land use, transportation and urban design approaches to support multimodal mobility.**
- **Provide guidelines to help planners optimize transit investments and reduce reliance on single occupancy vehicles.**

# Overview of DRPT Multimodal Design Guidelines

## Resources:

Although this project has included an extensive review of comparable studies and standards nationally, there are two primary source materials that were used extensively, particularly for the corridor design standards in these Guidelines. These are the guidebook jointly developed by the Institute of Transportation Engineers (ITE) and the Congress for New Urbanism (CNU) “Designing Walkable Urban Thoroughfares: A Context Sensitive Approach and the VDOT Road Design Manual. The first of these sources, the ITE/CNU Guidebook, is a commonly cited industry standard, particularly in the areas of context sensitive street standards and has a very comprehensive set of parameters for corridor design elements as well as a widely familiar typology of multimodal corridors (boulevard, avenue, street, etc.). The second of these sources, the VDOT Road Design Manual is an important set of standards for corridor design in Virginia, as it defines standards for the design of streets to be accepted into statewide maintenance.

# Overview of DRPT Multimodal Design Guidelines

## Implementation of the Guidelines / Standards:

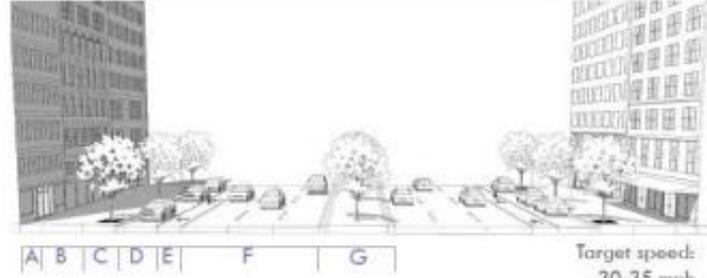
The methodology and standards in the Multimodal System Design Guidelines constitute a “complete streets” approach. **Complete Streets are streets that are designed and operated to enable safe access for all travelers regardless of travel mode, age and ability.** The overriding purpose of these Standards is the same as that of Complete Streets – to rethink the design of transportation infrastructure to make sure all pedestrians, bicyclists, and transit riders have equal access to all destinations. These Standards allow additional flexibility to address constrained rights of way by allowing all modes to be accommodated at least using minimum acceptable dimensions according to industry standards. **The methodology of corridor design used in these Guidelines does not address issues of motorized vehicular capacity in a corridor, or address any changes to the number of travel lanes.**

# BOULEVARD

Corridor Elements - as listed in the Corridor Matrix

T6

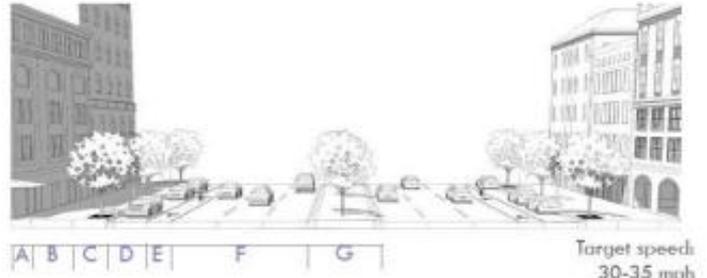
Building Frontage	A	5'
Sidewalk Through	B	10'
Amenity	C	8.5'
Parking	D	8'
Bicycle	E	6'
Travel Lane	F	12'
Median	G	20'



Target speed:  
30-35 mph

T5

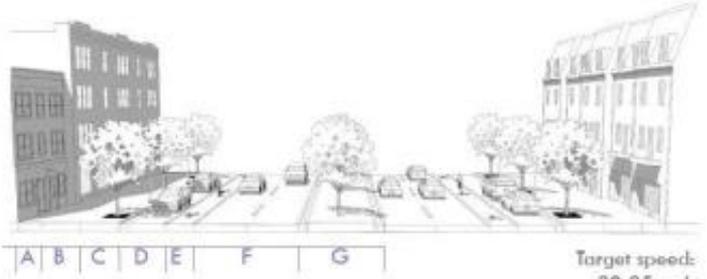
Building Frontage	A	5'
Sidewalk Through	B	10'
Amenity	C	8.5'
Parking	D	8'
Bicycle	E	6'
Travel Lane	F	12'
Median	G	20'



Target speed:  
30-35 mph

T4

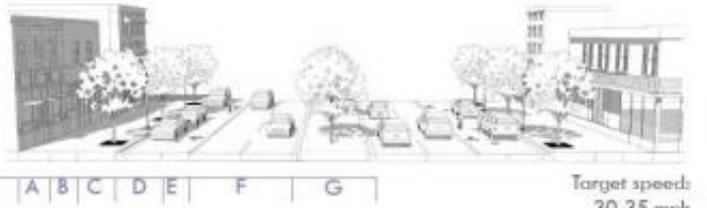
Building Frontage	A	5'
Sidewalk Through	B	8'
Amenity	C	8.5'
Parking	D	8'
Bicycle	E	6'
Travel Lane	F	12'
Median	G	20'



Target speed:  
30-35 mph

T3

Building Frontage	A	7'
Sidewalk Through	B	6'
Amenity	C	8.5'
Parking	D	8'
Bicycle	E	6'
Travel Lane	F	12'
Median	G	20'



Target speed:  
30-35 mph

# DRPT MULTIMODAL DESIGN GUIDELINES

## Implementation of the Guidelines / Standards:

These Guidelines, which constitute a “complete streets” approach will be adopted as Standards by VDOT and incorporated into Appendix B(2) of the VDOT Road Design Manual later this year. The Road Design Manual can be accessed at

[http://www.extranet.vdot.state.va.us/locdes/Electronic\\_Pubs/2005%20RDM/RoadDesignCoverVol.1.pdf](http://www.extranet.vdot.state.va.us/locdes/Electronic_Pubs/2005%20RDM/RoadDesignCoverVol.1.pdf)

The Multimodal System Design Guidelines, Executive Summary, Guide For Preparing a Multimodal System Plan and three videos will be posted on the Department of Rail and Public Transportation’s website at

<http://www.drpt.virginia.gov/activities/MultimodalSystemDesignGuidelines.aspx>

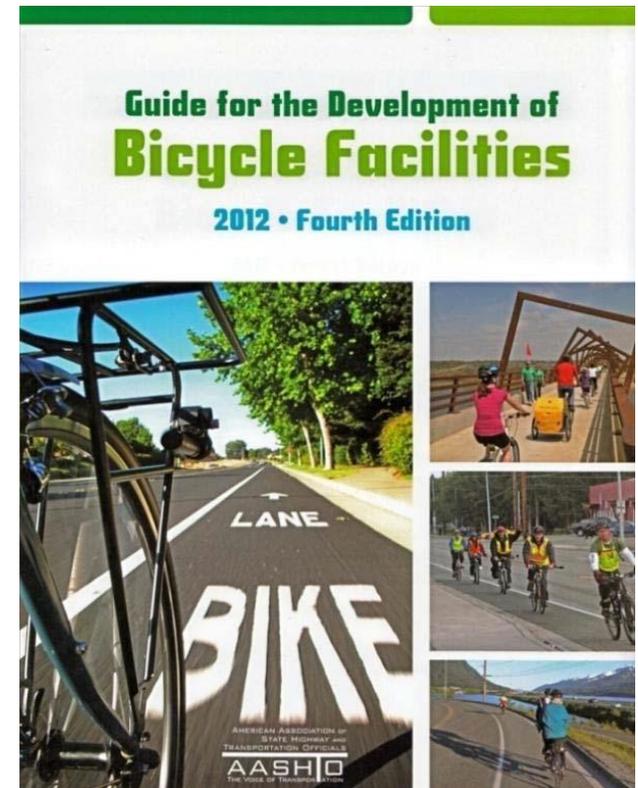
# 2012 AASHTO Guide for the Development of Bicycle Facilities

The 2012 AASHTO Bike Guide (Released in June 2012): An Overview

[http://www.walkinginfo.org/training/pbic/collateral/AASHTO\\_08\\_10\\_12\\_a.pdf](http://www.walkinginfo.org/training/pbic/collateral/AASHTO_08_10_12_a.pdf)

## MAJOR CHANGES IN THE 2012 GUIDE

- Guide expanded from 75 pages to over 200 pages
- 3 chapters to 7 chapters
- Guidance on how to choose bikeway type
- Affirms lane diets and road diets
- Expanded bike lane guidance
- Expanded signal guidance
- Expanded shared use path guidance (including paths adjacent to roads)



# 2012 AASHTO Guide for the Development of Bicycle Facilities

## MAJOR CONTENT CHANGES

- **Integrating Bikes with Transit**
  - **Bike access to transit vehicles**
  - **Bike parking at transit stations**
  - **Bikeways to transit**
  - **Promoting bikes on transit**



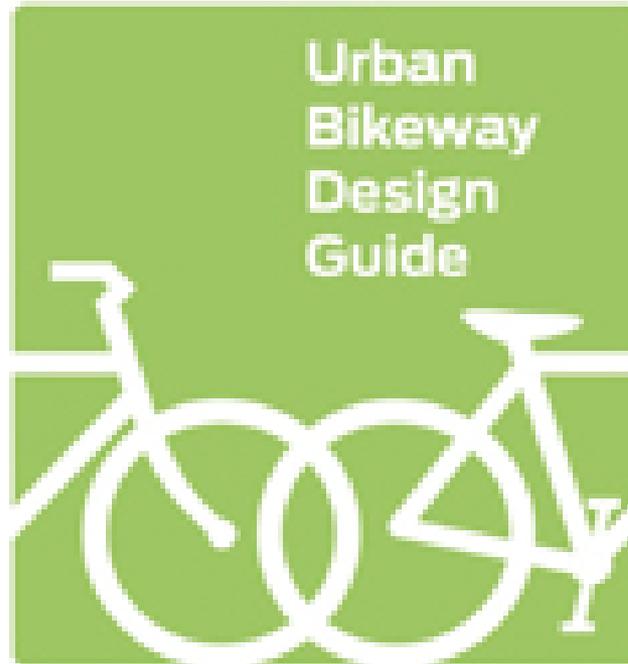
# 2012 AASHTO Guide for the Development of Bicycle Facilities

## ISSUES NOT ADDRESSED BY THIS GUIDE

- Bike boxes
- Raised bike lanes
- Bicycle signal heads



# National Association of City Transportation Officials (NACTO) URBAN BIKEWAY DESIGN GUIDE



# NACTO URBAN BIKEWAY DESIGN GUIDE



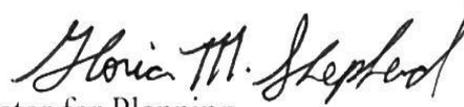
U.S. Department  
of Transportation  
**Federal Highway  
Administration**

## Memorandum

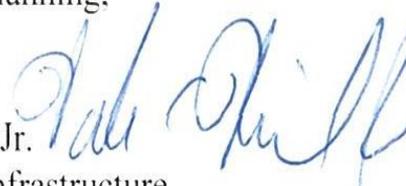
SENT BY ELECTRONIC MAIL

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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

# NACTO URBAN BIKEWAY DESIGN GUIDE

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.

# NACTO URBAN BIKEWAY DESIGN GUIDE

## NACTO Guide

NACTO first released the [Urban Bikeway Design Guide](#) (NACTO Guide) in 2010 to address more recently developed bicycle design treatments and techniques. It provides options that can help create “complete streets” that better accommodate bicyclists. While not directly referenced in the AASHTO Bike Guide, many of the treatments in the NACTO Guide are compatible with the AASHTO Bike Guide and demonstrate new and innovative solutions for the varied urban settings across the country.

The vast majority of treatments illustrated in the NACTO Guide are either allowed or not precluded by the Manual on Uniform Traffic Control Devices (MUTCD). In addition, non-compliant traffic control devices may be piloted through the MUTCD experimentation process. That process is described in [Section 1A.10](#) of the MUTCD and a table on the FHWA's bicycle and pedestrian design guidance Web page is regularly updated ([FHWA Bicycle and Pedestrian Design Guidance](#)), and explains what bicycle facilities, signs, and markings are allowed in accordance with the MUTCD. Other elements of the NACTO Guide's new and revised provisions will be considered in the rulemaking cycle for the next edition of the MUTCD.

# NACTO URBAN BIKEWAY DESIGN GUIDE

## Summary

FHWA encourages agencies to appropriately use these guides and other resources to help fulfill the aims of the *2010 US DOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations* – “...DOT encourages transportation agencies to go beyond the minimum requirements, and proactively provide convenient, safe, and context-sensitive facilities that foster increased use by bicyclists and pedestrians of all ages and abilities, and utilize universal design characteristics when appropriate.”

Accompanying this memo are the latest versions of the: 1) AASHTO Bike Guide, 2) NACTO Bike Guide; and 3) the ITE *Designing Walkable Urban Thoroughfares* Guide.

**QUESTIONS?**