

ACCESSING TRANSIT

DESIGN HANDBOOK FOR FLORIDA BUS PASSENGER FACILITIES

VERSION III, 2013

INTERIM UPDATES SINCE 2013 PUBLICATION

APRIL 2017



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Accessing Transit: Design Handbook for Florida Bus Passenger Facilities, Version III, 2013 serves to provide guidance to state and local governments and transit agencies in the design, location, and installation of transit facilities consistent with state and federal laws and regulations, including the American with Disabilities Act (ADA), and best practices. The Florida Department of Transportation (FDOT) Public Transit Office initially prepared and published Version I of the handbook in 2004, with subsequent updates published in 2008 (Version II) and 2013 (Version III).

The purpose of this document is to identify and incorporate by reference changes to the 2013 Accessing Transit Handbook since its publication. Changes are identified herein by underlined text indicating additions and ~~strike thru text~~ indicating deletions to the original text contained in the 2013 Accessing Transit Handbook. For any revisions including ~~strike thru text~~, a final version of the 2017 requirement is also provided.

The table below summarizes the sections of the 2013 Accessing Transit Handbook where changes have been

identified through this review effort. As noted below, changes were identified for Chapter 3: Curb-Side Facilities and Chapter 4: Street-Side Facilities.

The remainder of this document discusses the specific changes identified for Chapters 3 and 4 of the 2013 Accessing Transit Handbook. For each noted change, the original 2013 Handbook language is provided along with the updated requirement and reference source, which include the following:

- 2013 Accessing Transit Handbook
- FDOT’s 2017 Plans Preparation Manual (PPM)
- FDOT Complete Streets Policy (2014) and Implementation Plan (2015)
- Florida Administrative Code (FAC), 2016
- Americans with Disabilities Act (ADA) Accessibility Guidelines for Transportation Vehicles, 36 CFR Part 1192
- FDOT Highway Beautification Online Resources

2013 Handbook Organization	Changes Identified and Documented Herein?
Chapter 1: Introduction and User Guide	No
Chapter 2: Transit Service Types and Facility Prototypes	No
Chapter 3: Curb-Side Facilities	<p>Yes, changes identified to:</p> <p>Section 3.1: Bus Stop Boarding and Alighting Areas</p> <p>Section 3.2: Bus Stop Signs</p> <p>Section 3.3: Bus Stop Shelters</p> <p>Section 3.4: Bus Stop Benches</p> <p>Section 3.5: Other Components</p> <p>Section 3.6: Landscaping</p>
Chapter 4: Street-Side Facilities	<p>Yes, changes identified to:</p> <p>Section 4.2: Bus Stop Placement</p> <p>Section 4.5: Pedestrian and Bicycle Access to Bus Stops</p>
Chapter 5: Exclusive/Special Use Lanes	No
Chapter 6: BRT and Rail Station Design	No
Chapter 7: Agency Coordination	No
Index of Resources	Yes
Appendix A: Glossary	No
Appendix B: Quick Reference Guide	Yes
Appendix C: Bus Stop Checklist	No

Chapter 3 presents guidelines for improving passenger accessibility to buses and passenger mobility in the right-of-way, including the coordination of bus stop elements such as bus stop signs, benches, and shelters. Additional elements or components such as boarding and alighting areas, lighting, leaning rails, trash receptacles, and bicycle racks are also presented. This information is relevant to planners, engineers, and other transit professionals involved in bus stop siting and design within public rights-of-way and on private property.

Identified changes to the 2013 Accessing Transit Handbook affect the following sections of Chapter 3:

- Section 3.1: Bus Stop Boarding and Alighting Areas
- Section 3.2: Bus Stop Signs
- Section 3.3: Bus Stop Shelters
- Section 3.4: Bus Stop Benches
- Section 3.5: Other Components
- Section 3.6: Landscaping

SECTION 3.1: BUS STOP BOARDING AND ALIGHTING AREAS

2013 REQUIREMENT	2017 REQUIREMENT
<p>The minimum requirements for a bus stop are a bus stop sign and a B&A area that provides a well-drained, non-slippery surface with adequate space for passenger movement on and off buses.</p>	<p>The minimum requirements for a bus stop are a bus stop sign and a B&A area that provides a well-drained, non-slippery surface with adequate space for passenger movement on and off buses. <u>However, B&A areas are not required at bus stops on flush shoulder roadways where only a bus stop sign is provided.</u> *</p> <p><i>*Note: The statement that B&A areas are not required at bus stops only applies if complementary ADA paratransit service is available.</i></p>
Source Details	
<i>2013 Accessing Transit Handbook, Page 41</i>	<i>PPM Volume 1 (2017), 8.10.1, Page 8-47</i>
<p>The B&A area on flush shoulder roadways must use a Type E curb (5-inch curb height) and be connected to the sidewalk along the roadway, or to the roadway when no sidewalk is present. Detectable warnings are required where a sidewalk associated with a B&A area connects to the roadway at grade.</p>	<p>The B&A area on flush shoulder roadways must use a Type E curb (5-inch curb height) and be connected to the sidewalk along the roadway, or to the roadway when no sidewalk is present. <u>To ensure vehicle access, a maximum running slope of 1:6 is specified for vehicle ramps deployed to roadways or curb-height bus stops, and 1:8 for ramps deployed to boarding platforms in level boarding bus systems.</u> Detectable warnings are required where a sidewalk associated with a B&A area connects to the roadway at grade.</p>
Source Details	
<i>2013 Accessing Transit Handbook, Page 41</i>	<i>ADA Accessibility Guidelines for Transportation Vehicles, 36 CFR Part 1192, Appendix A, Chapter 4, T402.8.1 and 8.2.</i>

SECTION 3.2: BUS STOP SIGNS

2013 REQUIREMENT	2017 REQUIREMENT
<p>All sign supports, except overhead cantilever, truss type or bridge, or barrier wall-mounted, shall be breakaway as defined in the American Association of State Highway and Transportation Officials (AASHTO) Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, and the <i>AASHTO Roadside Design Guide</i>. Sign supports shall be of an acceptable and crashworthy design as described in the <i>FDOT Design Standards</i>.</p>	<p>2017 REQUIREMENT WITH REVISIONS SHOWN</p> <p>All sign supports and conventional light poles, except overhead cantilever, truss type or bridge, or barrier wall-mounted, shall <u>must</u> be breakaway as defined in the American Association of State Highway and Transportation Officials (AASHTO) Standard <u>LRFD</u> Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, and the <i>AASHTO Roadside Design Guide</i>, <u>unless installed behind a barrier</u>. Sign supports must be of an acceptable and crashworthy design as detailed in the <i>FDOT Design Standards</i>.</p> <p>2017 FINAL REQUIREMENT</p> <p>All sign supports and conventional light poles, except overhead cantilever, truss type or bridge, or barrier wall-mounted, must be breakaway as defined in the American Association of State Highway and Transportation Officials (AASHTO) LRFD Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, and the <i>AASHTO Roadside Design Guide</i>, unless installed behind a barrier. Sign supports must be of an acceptable and crashworthy design as detailed in the <i>FDOT Design Standards</i>.</p>
Source Details	
<i>2013 Accessing Transit Handbook, Page 51</i>	<i>PPM Volume 1 (2017), 4.2.9, Page 4-25</i>
<p>Use of existing poles should also be considered to minimize the number of posts and poles in the roadway right-of-way.</p>	<p>2017 REQUIREMENT WITH REVISIONS SHOWN</p> <p>Use of existing poles should also be considered to minimize the number of posts and poles in the roadway right-of-way. <u>However, bus stop signs may only be attached to an existing sign support provided that there is no more than one other supplementary sign already in place.</u></p> <p>2017 FINAL REQUIREMENT</p> <p>Use of existing poles should also be considered to minimize the number of posts and poles in the roadway right-of-way. However, bus stop signs may only be attached to an existing sign support provided that there is no more than one other supplementary sign already in place.</p>
Source Details	
<i>2013 Accessing Transit Handbook, Page 53</i>	<i>Section 14.20.004, FAC</i>

SECTION 3.3: BUS STOP SHELTERS

2013 REQUIREMENT	2017 REQUIREMENT
<p>Per FAC 14-20.003, shelters are currently prohibited in <i>medians</i>* and on limited access roads. Shelters erected outside of the urban limits shall be spaced so that no more than two shelters are erected per mile of a two-lane highway and no more than four shelters are erected per mile on highways with four or more lanes. Shelter locations must meet setback and minimum clear recovery zone requirements as established in FDOT Design Standards, Index 700.</p>	<p>2017 REQUIREMENT WITH REVISIONS SHOWN</p> <p>Per FAC 14-20.003, shelters are currently prohibited in medians and on limited access roads. <u>Bus shelters are prohibited in medians except when maintained by bus rapid transit providers using an inside lane for passenger transport.</u> Shelters erected outside of the urban limits shall be spaced so that no more than two shelters are erected per mile of a two-lane highway and no more than four shelters are erected per mile on highways with four or more lanes. Shelter locations must meet setback and minimum clear recovery zone requirements as established in FDOT Design Standards, Index 700.</p> <p><u>According to the 2017 PPM Vol. 1, a <i>Median</i> is defined as “the portion of a highway separating opposing directions of the traveled way. Medians may be depressed, raised, or flush with the traveled way surface.”</u></p> <p>2017 FINAL REQUIREMENT</p> <p>Per FAC 14-20.003, shelters are currently prohibited on limited access roads. Bus shelters are prohibited in medians except when maintained by bus rapid transit providers using an inside lane for passenger transport. Shelters erected outside of the urban limits shall be spaced so that no more than two shelters are erected per mile of a two-lane highway and no more than four shelters are erected per mile on highways with four or more lanes. Shelter locations must meet setback and minimum clear recovery zone requirements as established in FDOT Design Standards, Index 700.</p>
Source Details	
<p>2013 Accessing Transit Handbook, Page 58</p>	<p>Section 14.20.003, FAC</p>

SECTION 3.3: BUS STOP SHELTERS (CONTINUED)

2013 REQUIREMENT	2017 REQUIREMENT
<p>Shelters shall not be placed on sidewalks where they could obstruct the movement of pedestrians. When a shelter is located on the street side of a sidewalk, a minimum 4-foot pedestrian pathway, per State requirements, shall be maintained on three sides of the shelter.</p>	<p>2017 REQUIREMENT WITH REVISIONS SHOWN</p> <p>Shelters shall not be placed on sidewalks where they could obstruct the movement of pedestrians <u>obstruct any sidewalk, bike path, pedestrian path, driveway, drainage structure or ditch</u>. When a shelter is located on the street side of a sidewalk, a minimum 4-foot pedestrian pathway, per State requirements, shall be maintained on three sides of the shelter <u>shall provide at least four feet of clearance for pedestrian traffic between the front of the shelter and the nearest edge of the road.</u></p> <p>2017 FINAL REQUIREMENT</p> <p>Shelters shall not be placed on sidewalks where they could obstruct any sidewalk, bike path, pedestrian path, driveway, drainage structure or ditch. When a shelter is located on the street side of a sidewalk, a minimum 4-foot pedestrian pathway, per State requirements, shall provide at least four feet of clearance for pedestrian traffic between the front of the shelter and the nearest edge of the road.</p>
Source Details	
<i>2013 Accessing Transit Handbook, Page 59</i>	<i>Section 14.20.003, FAC</i>
<p>According to Rule 14-20.003, FAC, there shall be no more than one advertisement per side, including the roof, and said advertisement shall be no greater than 6 feet by 5 feet in size.</p>	<p>2017 REQUIREMENT WITH REVISIONS SHOWN</p> <p>According to Rule 14-20.003, FAC, there shall be no more than one advertisement per side, including the roof, <u>and on any appurtenant totem poles</u>; and said advertisement shall be no greater than 6 feet by 5 feet in size. <u>Furthermore, no advertising shall be of a reflectorized material or otherwise cause a glare.</u></p> <p>2017 FINAL REQUIREMENT</p> <p>According to Rule 14-20.003, FAC, there shall be no more than one advertisement per side, including the roof, and on any appurtenant totem poles; and said advertisement shall be no greater than 6 feet by 5 feet in size. Furthermore, no advertising shall be of a reflectorized material or otherwise cause a glare.</p>
Source Details	
<i>2013 Accessing Transit Handbook, Page 64</i>	<i>Section 14.20.003, FAC</i>

SECTION 3.4: BUS STOP BENCHES

2013 REQUIREMENT	2017 REQUIREMENT
<p>According to 14-20.0032 FAC, benches shall be placed only at agency-authorized transit stops. However, only a minimum number of benches necessary to accommodate comfort and convenience of the general public shall be erected or maintained. Benches may be sheltered or unsheltered.</p>	<p>2017 REQUIREMENT WITH REVISIONS SHOWN</p> <p>According to 14-20.0032 FAC, benches shall be placed only at agency-authorized transit stops. However, only a minimum number of benches necessary to accommodate comfort and convenience of the general public shall be erected or maintained. Benches may be sheltered or unsheltered. <u>School bus benches shall only be placed at bus stops designated by the local school board.</u></p> <p><u>Convenience or comfort benches, not located at a transit bus stop or a school bus stop, shall be limited to the minimum number of benches necessary to accommodate the comfort and convenience of the general public.</u> <u>Convenience or comfort benches may not be constructed in medians.</u></p> <p>2017 FINAL REQUIREMENT</p> <p>According to 14-20.0032 FAC, benches shall be placed only at agency-authorized transit stops. Benches may be sheltered or unsheltered. School bus benches shall only be placed at bus stops designated by the local school board.</p> <p>Convenience or comfort benches, not located at a transit bus stop or a school bus stop, shall be limited to the minimum number of benches necessary to accommodate the comfort and convenience of the general public. Convenience or comfort benches may not be constructed in medians.</p>
Source Details	
<p><i>2013 Accessing Transit Handbook, Page 69</i></p>	<p><i>Section 14.20.0032, FAC</i></p>

SECTION 3.4: BUS STOP BENCHES (CONTINUED)

2013 REQUIREMENT	2017 REQUIREMENT
<p>Any bench placed on any part of a sidewalk shall leave clearance for pedestrian traffic between the bench and the nearest edge of the road. Sidewalk width shall never be less than 5 feet in clear width unless approved by the District Engineer governing the work being performed. Regardless, in no cases shall the clear width be less than 3 feet in accordance with ADA.</p>	<p>Any bench placed on any part of a sidewalk shall leave <u>4 feet of clearance per 14-20.0032 FAC</u> for pedestrian traffic between the bench and the nearest edge of the road. Sidewalk width shall never be less than 5 feet in clear width unless approved by the District Engineer governing the work being performed. Regardless, in no cases shall the clear width be less than 3 feet in accordance with ADA.</p>
Source Details	
<i>2013 Accessing Transit Handbook, Page 70</i>	<i>Section 14.20.0032, FAC</i>
<p>Benches should be placed on non-slip, properly-drained concrete pads or on grass, gravel, or rubber sidewalks, if possible. According to 14-20.0032 FAC, benches shall not be placed in the median of any divided highway or on limited access facilities.</p>	<p>2017 REQUIREMENT WITH REVISIONS SHOWN Benches should be placed on non-slip, properly-drained concrete pads or on grass, gravel, or rubber sidewalks, if possible. <u>Firm, stable, and slip resistant boarding and alighting areas are required if amenities such as benches or shelters are added to a bus stop.</u> According to 14-20.0032 FAC, benches shall not be placed in the median of any divided highway or on limited access facilities, <u>except when maintained by bus rapid transit providers utilizing an inside lane for passenger transport per 14-20.003 FAC.</u></p> <p>2017 FINAL REQUIREMENT Firm, stable, and slip resistant boarding and alighting areas are required if amenities such as benches or shelters are added to a bus stop. According to 14-20.0032 FAC, benches shall not be placed in the median of any divided highway or on limited access facilities, except when maintained by bus rapid transit providers utilizing an inside lane for passenger transport per 14-20.003 FAC.</p>
Source Details	
<i>2013 Accessing Transit Handbook, Page 70</i>	<i>PPM Volume 1 (2017), 8.10.1, Page 8-47 & Section 14.20.0032, FAC</i>

SECTION 3.5: OTHER COMPONENTS

The following language reflects a new sub-section under Section 3.5 concerning Complete Streets.

2013 REQUIREMENT	2017 REQUIREMENT
None.	<p><u>Complete Streets</u></p> <p><u>FDOT’s Complete Streets Policy, adopted in September 2014, promotes safety, quality of life, and economic development in Florida. It states that FDOT will routinely plan, design, construct, reconstruct and operate a context-sensitive transportation network that works for all modes of travel.</u></p> <p><u>To execute this policy, FDOT prepared the Complete Streets Implementation Plan, which prescribes a variety of changes to FDOT’s primary planning and design guidance for transportation projects.</u></p> <p><u>The Complete Streets Implementation Plan outlines a five-part implementation framework and process. This will assist in efficiently integrating a Complete Streets approach into FDOT’s practices to ensure that future transportation decisions and investments address the needs of all users of the transportation network and respond to community goals and context.</u></p> <p><u>The five-part implementation framework consists of:</u></p> <ol style="list-style-type: none"> <u>1. Revising guidance, standards, manuals, policies, and other documents.</u> <u>2. Updating decision-making processes.</u> <u>3. Modifying approaches for measuring performance.</u> <u>4. Managing internal and external communication and collaboration during implementation.</u> <u>5. Providing ongoing education and trainings.</u> <p><u>The Complete Streets Implementation Plan includes a two-year schedule and process concluding in December 2017. The schedule calls to provide a final Complete Streets Handbook at the end of June 2017 and a final Complete Streets Design Manual in November 2017.</u></p> <p><u>Once the final Complete Streets Handbook and Design Manual are available, the Accessing Transit Handbook should be reviewed and updated to be consistent with the new Complete Streets guidance concerning the design, location, and installation of transit facilities.</u></p>
Source Details	
N/A	<i>FDOT Complete Streets Policy (2014) and Implementation Plan (2015)</i>

SECTION 3.6: LANDSCAPING

2013 REQUIREMENT	2017 REQUIREMENT
<p>All landscaping along FDOT rights-of-way must comply with standards in the latest editions of the <i>PPM, Florida Highway Landscape Guide</i>, and <i>FDOT Design Standards</i>, Index 546 and Index 700.</p>	<p>All landscaping along FDOT rights-of-way must comply with standards in the latest editions of the <i>PPM</i>, <u>Chapters 9, 21, and 25</u>, <i>Florida Highway Landscape Guide</i>, and <i>FDOT Design Standards</i>, <u>Index 544</u>, Index 546, and Index 700.</p>
<p>Source Details</p>	
<p><i>2013 Accessing Transit Handbook, Page 90</i></p>	<p><i>FDOT Highway Beautification Online Resources</i></p>

CHAPTER 3 REFERENCE UPDATES

A list of references is provided at the conclusion of each section within Chapter 3. Modifications to the references within Chapter 3 are provided below as part of the changes identified in this interim update guidance.

References: Chapter 3

United States DOT, 2006. *ADA Standards for Transportation Facilities*. <https://www.access-board.gov/guidelines-and-standards/transportation/facilities/ada-standards-for-transportation-facilities>

References: Section 3.1

Architectural and Transportation Barriers and Compliance Board, *36 CFR Part 1192*, <http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=940d9276affa36e277dad822c57e38db&mc=true&r=PART&n=pt36.3.1192>

FDOT, 2012. *Plans Preparation Manual, Volume 1*. <http://www.dot.state.fl.us/rddesign/PPMManual/PPM.shtm>, accessed February 23, 2012.

FDOT, 2017. *Plans Preparation Manual, Volume 1*. <http://www.fdot.gov/roadway/ppmmanual/2017PPM.shtm>, accessed March 23, 2017.

References: Section 3.2

FDOT, 2008. *Accessing Transit, Version II*.

FDOT, 2013. *Accessing Transit, Version III*.

FDOT, 2012. *Plans Preparation Manual, Volume 1*. <http://www.dot.state.fl.us/rddesign/PPMManual/PPM.shtm>, accessed February 23, 2012.

FDOT, 2017. *Plans Preparation Manual, Volume 1*. <http://www.fdot.gov/roadway/ppmmanual/2017PPM.shtm>, accessed January 2017.

Florida Administrative Code (Online), 2017. <https://www.flrules.org/gateway/ruleno.asp?id=14-20.004>, accessed January 2017.

References: Section 3.3

FDOT, 2008. *Accessing Transit, Version II*.

FDOT, 2013. *Accessing Transit, Version III*.

FDOT, 2012. *Plans Preparation Manual, Volume 1*. <http://www.dot.state.fl.us/rddesign/PPMManual/PPM.shtm>, accessed February 23, 2012.

FDOT, 2017. *Plans Preparation Manual, Volume 1*. <http://www.fdot.gov/roadway/ppmmanual/2017PPM.shtm>, accessed January 2017.

Florida Administrative Code Online, 2008. <https://www.flrules.org/gateway/ruleNo.asp?id=14-20.003>, accessed February 22, 2012.

Florida Administrative Code Online, 2017. <https://www.flrules.org/gateway/ruleNo.asp?id=14-20.003>, accessed January 2017.

References: Section 3.4

FDOT, 2008. *Accessing Transit, Version II*.

FDOT, 2013. *Accessing Transit, Version III*.

Florida Administrative Code Online, 2008. <https://www.flrules.org/gateway/ruleNo.asp?id=14-20.0032>, accessed February 22, 2012.

Florida Administrative Code Online, 2017. <https://www.flrules.org/gateway/ruleNo.asp?id=14-20.0032>, accessed January 2017.

References: Section 3.5

FDOT, 2008. *Accessing Transit, Version II*.

FDOT, 2013. *Accessing Transit, Version III*.

FDOT 2014-2015. *Complete Streets Policy and Implementation Plan*, <http://www.fdot.gov/roadway/csi/default.shtm>, accessed January 2017.

References: Section 3.6

FDOT, 2012. *Plans Preparation Manual, Volume 1*. <http://www.dot.state.fl.us/rddesign/PPMManual/PPM.shtm>, accessed February 23, 2012.

FDOT, 2017. *Plans Preparation Manual, Volume 1*. <http://www.fdot.gov/roadway/ppmmanual/2017PPM.shtm>, accessed March 23, 2017.

Chapter 4 presents guidelines for improving the bus passenger experience at the street level, including special use lanes, transit preferential treatments, and connections to pedestrian and bicycle facilities. This information is relevant to planners, engineers, and transportation professionals involved in facility layout, connections, and circulation.

Identified changes to the 2013 Accessing Transit Handbook affect the following sections of Chapter 4:

- Section 4.2: Bus Stop Placement
- Section 4.5: Pedestrian and Bicycle Access to Bus Stops

SECTION 4.2: BUS STOP PLACEMENT

2013 REQUIREMENT	2017 REQUIREMENT
<p>The following conditions also should be considered when placing a bus stop:</p> <ul style="list-style-type: none"> • A bus stop should not be placed in free-flow right-turn lanes. • The higher the design speed of the roadway, the greater the distance between the bus stop and the radial point in the road before or after the intersection will be, to meet sight distance and other standards. • To determine how far the bus stop will accumulate a queue through an intersection, a formal queue study should be conducted for that location if a recent study cannot be found. At locations where a specific queue study does not exist or is not feasible, a minimum queue storage value of 100 feet should be used in urban or suburban areas and a minimum storage value of 50 feet in rural areas. 	<p>The following conditions also should be considered when placing a bus stop:</p> <ul style="list-style-type: none"> • <u>Transit bus stops are allowed in medians only for bus rapid transit providers utilizing an inside lane for passenger transport.</u> • A bus stop should not be placed in free-flow right-turn lanes. • The higher the design speed of the roadway, the greater the distance between the bus stop and the radial point in the road before or after the intersection will be, to meet sight distance and other standards. • To determine how far the bus stop will accumulate a queue through an intersection, a formal queue study should be conducted for that location if a recent study cannot be found. At locations where a specific queue study does not exist or is not feasible, a minimum queue storage value of 100 feet should be used in urban or suburban areas and a minimum storage value of 50 feet in rural areas.

Source Details

2013 Accessing Transit Handbook, Page 125

Section 14.20.004, FAC

SECTION 4.5: PEDESTRIAN AND BICYCLE ACCESS TO BUS STOPS

2013 REQUIREMENT	2017 REQUIREMENT
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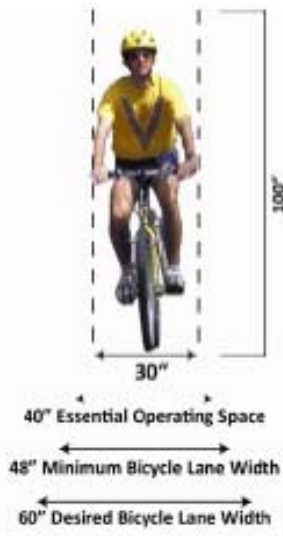
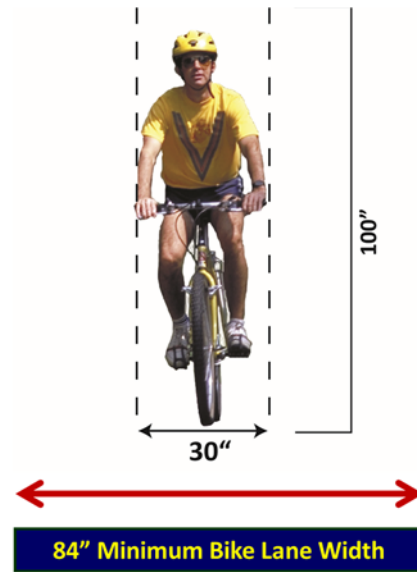


Figure 4.5.7 is revised to reflect FDOT’s updated policy of providing a minimum 84 inches for a marked bicycle lane width.*



* For new construction or reconstruction projects, both curbed and flush shoulder roadways, the standard width of a buffered bicycle lane is 7 feet. For high-speed curbed arterials, the standard width of a buffered bicycle lane is 6.5 feet. For Resurface-Restoration-Rehabilitation (RRR) projects, the distribution of available roadway width may require a bicycle lane other than the standard buffered bicycle lane (refer to Section 25.4.19.2 of the 2017 PPM, Volume 1).

Source Details

2013 Accessing Transit Handbook, Page 151, Figure 4.5.7: Operating space of a bicyclist

PPM Volume 1 (2017), 8.4.1, Page 8-13

CHAPTER 4 REFERENCE UPDATES

A list of references is provided at the conclusion of each section within Chapter 4. Modifications to the references within Chapter 4 are provided below as part of the changes identified in this interim update guidance.

References: Chapter 4

United States DOT, 2006. *ADA Standards for Transportation Facilities*. <https://www.access-board.gov/guidelines-and-standards/transportation/facilities/ada-standards-for-transportation-facilities>

References: Section 4.2

Florida Administrative Code (Online), 2017. <https://www.flrules.org/gateway/ruleno.asp?id=14-20.004>, accessed January 2017.

References: Section 4.5

FDOT, 2012. *Plans Preparation Manual, Volume 1*. <http://www.dot.state.fl.us/rddesign/PPMManual/PPM.shtm>, accessed February 23, 2012.

FDOT, 2017. *Plans Preparation Manual, Volume 1*. <http://www.fdot.gov/roadway/ppmmanual/2017PPM.shtm>, accessed January 2017.

INDEX OF RESOURCES

The 2013 Accessing Transit Handbook contains a list of the resources used to develop the handbook. The following modifications to the Index of Resources should be noted as part of the changes identified in this interim update guidance:

Accessing Transit, Version III (2013), FDOT

<http://www.fdot.gov/transit/Pages/2013AccessingTransitFinal.pdf>

ADA Standards for Transportation Facilities (2006), United States DOT

<https://www.access-board.gov/guidelines-and-standards/transportation/facilities/ada-standards-for-transportation-facilities>

Americans with Disabilities Act Accessibility Guidelines for Transportation Vehicles , 36 CFR Part 1192

[http://www.ecfr.gov/cgi-bin/text-idx?
SID=7126e1492ebc2d3e509888db48e1a0c3&mc=true&node=pt36.3.1192&rgn=div5](http://www.ecfr.gov/cgi-bin/text-idx?SID=7126e1492ebc2d3e509888db48e1a0c3&mc=true&node=pt36.3.1192&rgn=div5)

Note: Applicable changes to Appendix A, Chapter 4, T402.8.1 and 8.2 per Final Rule effective January 13, 2017.

FDOT Complete Streets Policy and Implementation Plan

<http://www.fdot.gov/roadway/csi/default.shtm>

FDOT Highway Beautification Online Resources

<http://www.fdot.gov/designsupport/highwaybeautification/usefullinks.shtm>

Relevant Rules and Statutes for Transit Facilities

Florida Administrative Code

- [Section 14.20.025 “Definitions”](#)
- [FAC Section 14.20.003 “Placement of Shelters”](#)
- [FAC Section 14.20.0032 “Placement of Benches”](#)
- [FAC Section 14.20.004 “Public Transit Bus Stops”](#)

Florida Statutes

- [Section 337.408 “Regulation of bus stops, benches, transit shelters, street light poles, waste disposal receptacles, and modular new racks within rights-of-way”](#)
- [Section 337.046 “Regulation of bus benches and transit shelters within rights-of-way”](#)

APPENDIX B: QUICK REFERENCE GUIDE

The 2013 Accessing Transit Handbook contains Appendix B, which serves as a Quick Resource Guide. The following modifications to Appendix B should be noted as part of the changes identified in this interim update guidance.

Bus Stop B&A Areas

Bus stop B&A areas shall have a firm, stable surface. ADA Standards further stipulate that floor and ground surfaces must also be slip resistant. However, B&A areas are not required at bus stops on flush shoulder roadways where only a bus stop sign is provided. *

**Note: The statement that B&A areas are not required at bus stops only applies if complementary ADA paratransit service is available.*

The B&A area on flush shoulder roadways must use a Type E curb (5-inch curb height) and be connected to the sidewalk along the roadway, or to the roadway when no sidewalk is present. To ensure vehicle access, a maximum running slope of 1:6 is specified for vehicle ramps deployed to roadways or curb-height bus stops, and 1:8 for ramps deployed to boarding platforms in level boarding bus systems.

Bus Stop Signs

Signposts in the clear zone (a roadside that is traversable and unobstructed by fixed objects to allow vehicles that leave the roadway to recover safely) must be designed with breakaway mechanisms or else protected by a barrier or crash cushion. All sign supports, and conventional light poles, except overhead cantilever, truss type or bridge, or barrier wall-mounted, shall must be breakaway as defined in the AASHTO Standard LRFD Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals and the AASHTO Roadside Design Guide, unless installed behind a barrier. Sign supports shall be of an acceptable and crashworthy design as described in the FDOT Design Standards.

Bus stop signs may only be attached to an existing sign support provided that there is no more than one other supplementary sign already in place.

Bus Stop Shelters

Shelters are prohibited in medians and on limited access roads. Bus shelters are prohibited in medians except when maintained by bus rapid transit providers using an inside lane for passenger transport. Shelters shall not be located within 15' of any fire hydrant or accessible parking space.

Shelters located adjacent to a sidewalk within the right-of-way of any road on the state highway or county road system shall be located to leave at least 48" of clearance for pedestrians and persons in wheelchairs. Shelters shall not be placed on sidewalks where they could obstruct the movement of pedestrians obstruct any sidewalk, bike path, pedestrian path, driveway, drainage structure or ditch. When a shelter is located on the street side of a sidewalk, a minimum 4-foot pedestrian pathway, per State requirements shall provide at least four feet of clearance for pedestrian traffic between the front of the shelter and the nearest edge of the road.

There shall be no more than one advertisement per side, including the roof, and on any appurtenant totem poles; and said advertisement shall be no greater than 6' by 5' in size. Furthermore, no advertising shall be of a reflectorized material or otherwise cause a glare.

Bus Stop Benches

According to Rule 14-20.0032, FAC, benches shall be placed only at agency-established transit stops. ~~However, only a minimum number of benches necessary to accommodate comfort and convenience of the general public shall be erected or maintained.~~

School bus benches shall only be placed at bus stops designated by the local school board.

Convenience or comfort benches, not located at a transit bus stop or a school bus stop, shall be limited to the minimum number of benches necessary to accommodate the comfort and convenience of the general public. Convenience or comfort benches may not be constructed in medians.

Any bench placed on any part of a sidewalk shall leave 4 feet of clearance per 14-20.0032, FAC for pedestrian traffic between the bench and the nearest edge of the road. Sidewalk width shall never be less than 4' in clear width unless approved by the District Engineer governing the work being performed. Regardless, in no cases shall the clear width be less than 36".

Firm, stable, and slip resistant boarding and alighting areas are required if amenities such as benches or shelters are added to a bus stop.

Benches shall not be placed in the median of any divided highway or on limited access facilities, except when maintained by bus rapid transit providers utilizing an inside lane for passenger transport per 14-20.003 FAC.

Landscaping

All landscaping along FDOT rights-of-way must comply with standards in the latest editions of the *PPM*, Chapters 9, 21, and 25, *Florida Highway Landscape Guide*, and *FDOT Design Standards*, Index 544, Index 546 and Index 700. Consult the FDOT Environmental Management Office website for the most current information on this topic, <http://www.dot.state.fl.us/emo/>.