

Green Bike Lanes



Where and how should be used?

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District 5 Roadway Design



Overview

- FHWA Interim Approval – April 15, 2011
- 2009 MUTCD Guidance
- Where to use
- Design consideration
- Material Requirements
- Process

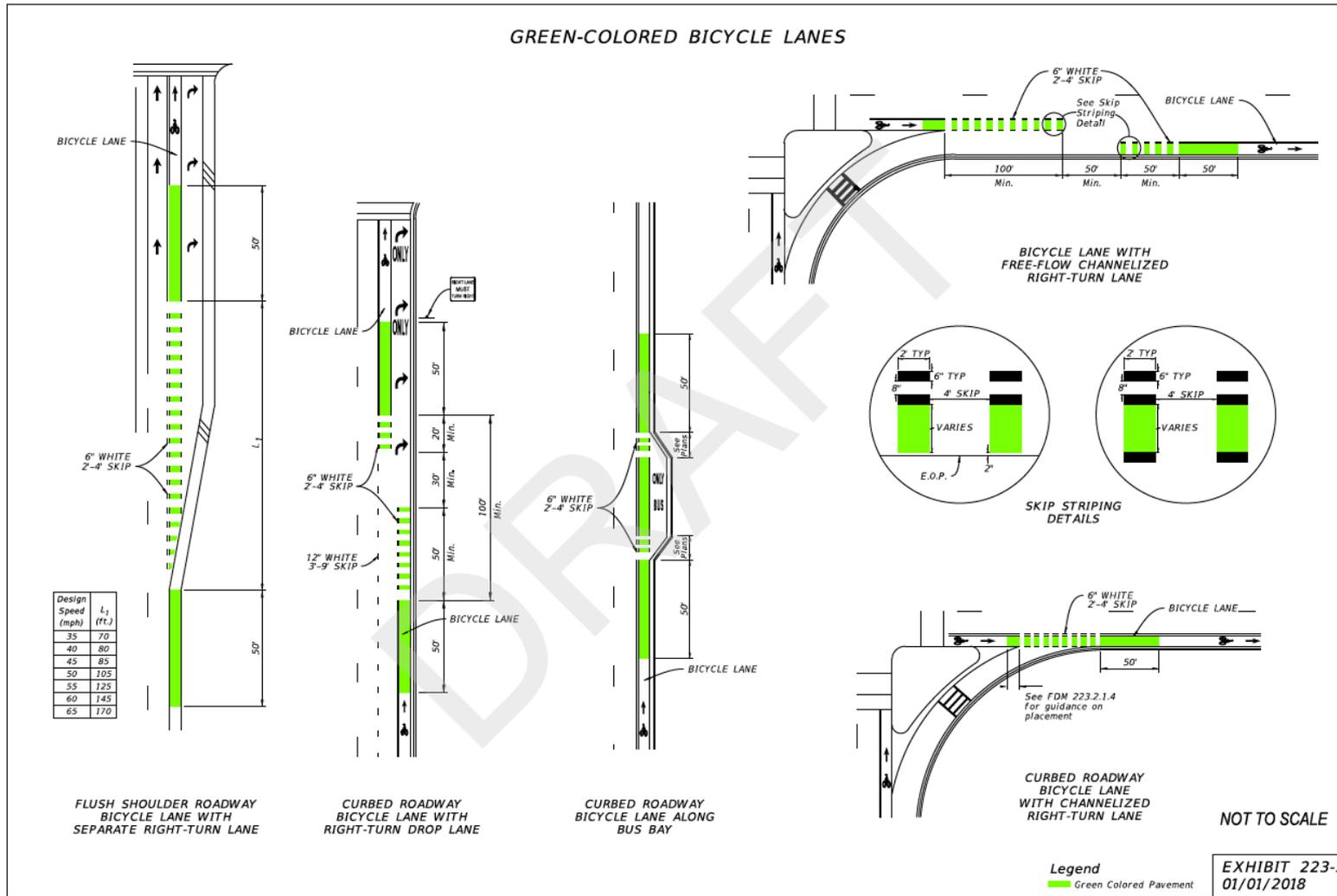


When is Permitted

- Colored pavement is **supplement**, not in lieu of bike lane marking
- Colored bike lane (regulate, warn, or guide) is a **traffic control device** whose need must be demonstrated before they are used.
- Green bike lanes is **optional** and used only to enhance the conspicuity of bicycle lane **conflict areas**.
- Used only where the path of bicyclists crosses the path of other road users and where **road users should yield to bicyclists**.

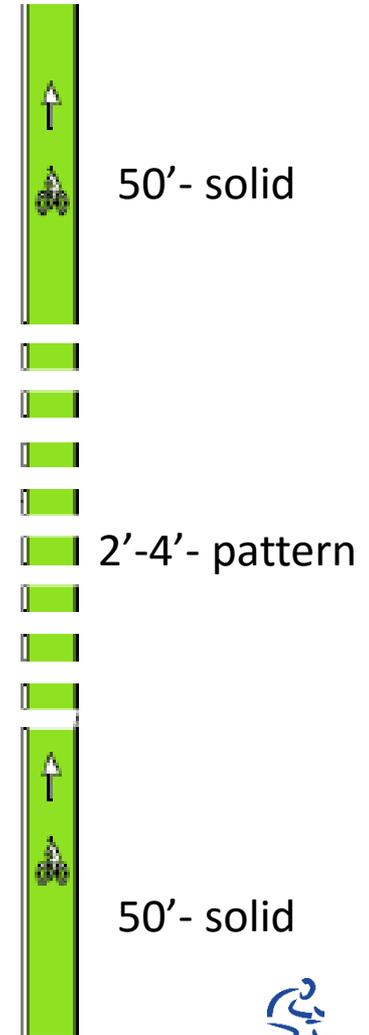


FDM – Chapter 223

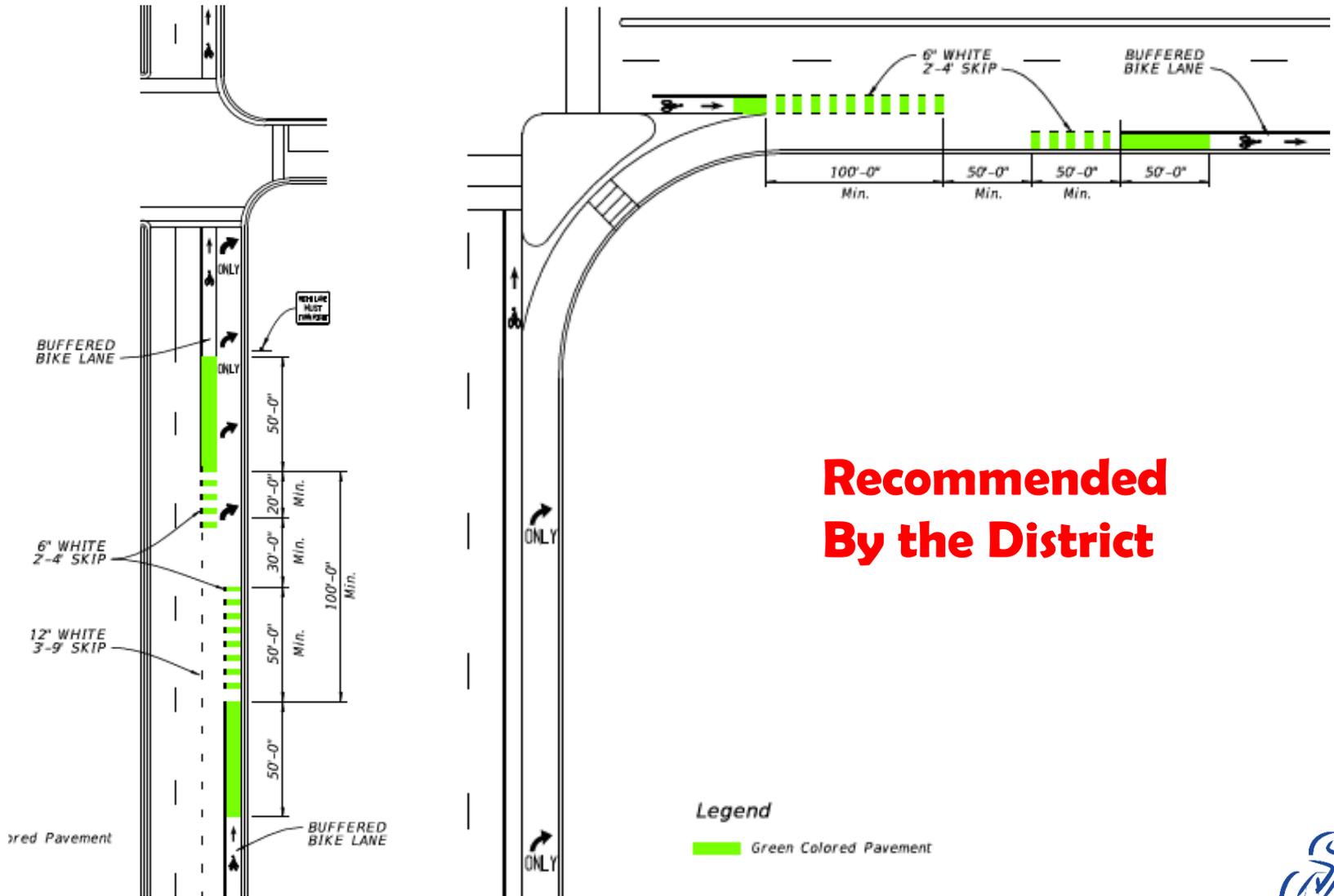


Design Considerations

- Shall match either the solid or 2'-4' white skip line pattern.
- Begin as a solid pattern 50' in advance of conflict area.
- Match the 2'-4' pattern through conflict area.
- Resume solid pattern for 50', unless interrupted by stop bar, intersection curb radius.
- PPM Figures 8.4.1 through 8.4.5 /FDM Exhibit 223-3



Design – Add/Drop Lane



**Recommended
By the District**



Material Requirements



- Must be non-reflective
- Meet FDOT Specification 523, Patterned Pavement for material requirements

SECTION 523 PATTERNED PAVEMENT

523-1 Description.

Install patterned pavement on asphalt or concrete pavement areas at locations and with the color and pattern as specified in the Plans. Use products listed on the Approved Product List (APL), as approved for use in areas subject to vehicular traffic or non-vehicular traffic, respectively, as specified herein. Install products in accordance with manufacturer's recommendations.

For the purpose of this Specification, patterned pavements are defined as a post applied surface marking overlay to either the pavement surface or to an imprinted pavement surface.

6. For products proposed for use as a bike lane application, independent testing verifying that the material can meet the color as identified in the April 15, 2011, Interim Approval for Optional use of Green Colored Pavement for Bike Lanes, Interim Approval (IA-14) Memorandum Valid Under the 2009 MUTCD (http://mutcd.fhwa.dot.gov/resources/interim_approval/ia14/index.htm).

weather resistant, skid resistant, wear resistant surface under service conditions. Color shall be integral and consistent throughout the installation. The composition of materials is intended to be left to the discretion of the manufacturer.

Materials shall be characterized as non-hazardous as defined by Resource Conservation and Recovery Act (RCRA), Subpart C, Table 1 of 40 CFR 261.24 "Toxicity Characteristic". Materials shall not exude fumes which are hazardous, toxic or detrimental to persons or property.

523-2.2 Approved Product List (APL): Manufacturers seeking evaluation of their product shall submit an application in accordance with Section 6 along with the following documentation:

1. Manufacturer's recommendations for applicability of use on concrete or asphalt surfaces.
2. Manufacturer's recommendation for applicability of use in vehicular or non-vehicular travel areas.
3. Manufacturer's specifications and procedures for materials and installation for each use above.
4. For products proposed for use in vehicular traffic areas, independent test data verifying the material meets the requirements of this Section including verification that the product, installed in accordance with the manufacturer's specifications and procedures, has been tested in accordance with either:

- Fall within the color parameters defined in the FHWA Interim Approval for Optional Use of Green Colored Pavement for Bike Lanes (IA-14) (daytime and night time)



Installation Example (D1)



Process

1. Coord
2. Reque
exhibi
3. Reque
4. Distric
copy t
5. Details
6. No loc
design

Request for Use of Green Color Bicycle Lanes

To: Annette Brennan, P.E. Date: 1/10/17
Design Engineer

Financial Project ID: 238275-2-52-01 New Const. (X) RRR ()
Federal Aid Number: N/A
Project Name: Lake County (11130)
State Road Number: 46 Co. /Sec. /Sub. Lake County
Begin Project MP: 0.603 End Project MP: 1.788
Full Federal Oversight: No (X) Yes () Note: if Yes, submit to FHWA Director.

A justification and all supporting documents must be attached to this document.
Mark the appropriate certification:

"I, Scott Horlander, Professional Engineer, of Protean Design Group,
Print Name of Initiator Position title Name of agency
recommend the placement of green color bicycle lanes for the abovementioned project and as outlined in the attached document.

[Signature] 1/10/17
Signature Date

For Department Use Only
"I, Annette K Brennan, District Design Engineer
Print Name Position title
of the Florida Department of Transportation, do hereby approve the use of green color bicycle lanes for the abovementioned project and as outlined in the attached document.

AK Brennan 1/25/17
Signature Date

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location
vide
will





Questions ?

Contact:

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Florida Department of Transportation
D5 Roadway Design
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George.Borchik@dot.state.fl.us

