

Developing VDOT's Bicycle and Pedestrian Treatments Website



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













Introduction

- In November 2021, VDOT launched a “Bicycle and Pedestrian Treatments” webpage, which provides information on eighteen design treatments.
- While some treatments, such as bicycle lanes, are already somewhat commonplace, others may be more unfamiliar to Virginians.
- The treatments are organized into the following categories:
 - Pedestrian Crossing Treatments
 - Intersection Safety Treatments
 - Bicycle Facilities
 - Bicycle Treatments at Intersections

Inspiration

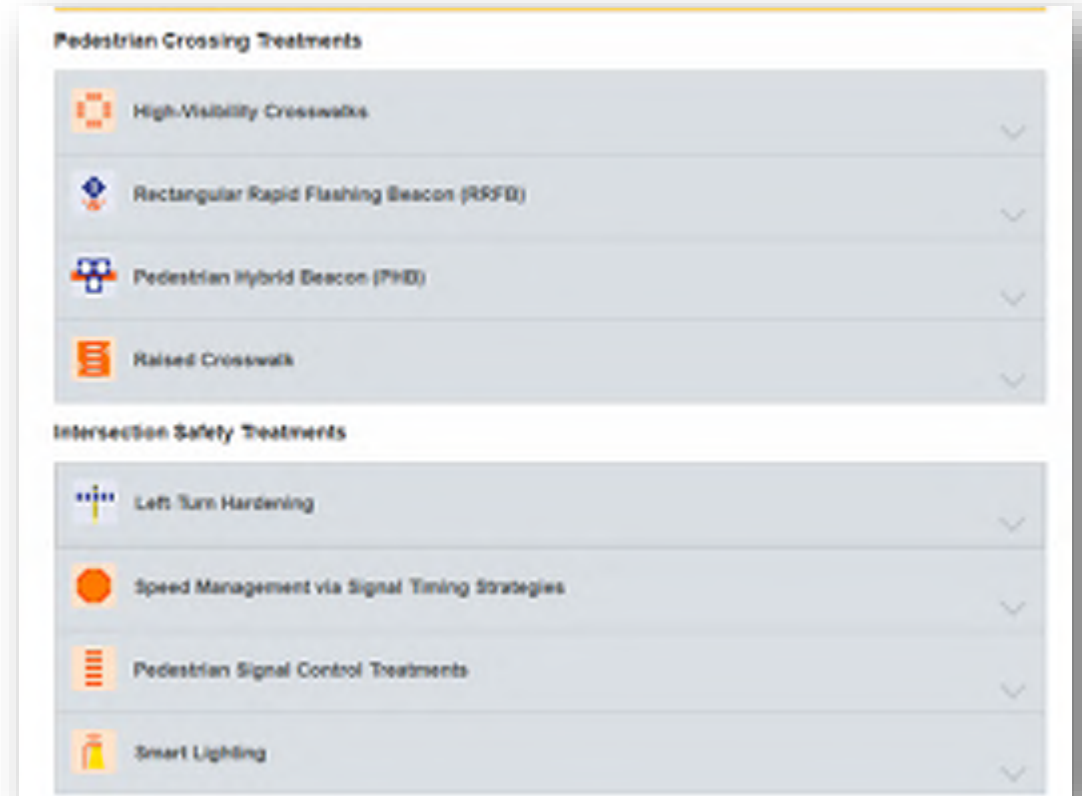
- [Innovative Intersections and Interchanges](#) webpage
 - Provides information on different types of innovative intersections and interchanges, locations where they are constructed or planned for construction in Virginia, and links to additional resources.

Intersections	
 Bowtie	 Restricted Crossing U-Turn (RCUT)
 Center Turn Overpass	 Roundabout
 Continuous Green-T (CGT)	 Mini Roundabout
 Displaced Left Turn (DLT)	 Single Loop
 Echelon	 Split Intersection
 Median U-Turn (MUT)	 Thru-cut
 Quadrant Roadway (QR)	

Interchanges	
 Contraflow Left	 Michigan Urban Diamond (MUD)
 Displaced Left Turn (DLT) Interchange	 Single-Point Urban Interchange (SPUI)
 Diverging Diamond Interchange (DDI)	 Single Roundabout
 Double Roundabout	

Inspiration

- We saw a need to publicize and provide examples of bicycle and pedestrian treatments that are potentially unfamiliar to several audiences:
 - Planners
 - Engineers
 - Decision makers
 - General public
 - Public affairs



Supporting Plans/Policies

- [VTRANS \(Virginia's Transportation Plan\) Goals and Objectives](#)
 - Objective B.3: Increase the accessibility to jobs via transit, walking, and driving in metropolitan areas.
 - Objective C.2: Reduce the number of non-motorized fatalities and serious injuries
 - Objective E.3: Increase the number of trips traveled by active transportation (bicycling and walking)
- [CTB Policy for Integrating Bicycle and Pedestrian Accommodations](#) (2004)
 - A framework for VDOT to accommodate bicyclists and pedestrians in the planning, funding, design, construction, operation, and maintenance of Virginia's transportation network.




Supporting Plans/Policies

- [2022-2026 Arrive Alive Plan](#)
 - **Action:** Provide outreach materials that are current and available from partners to advise and educate all road users on safe practices. This includes motorists when driving near and around pedestrians and bicyclists and facility use by bicyclists and pedestrians.
- [VDOT Pedestrian Safety Action Plan \(PSAP\) \(2018\)](#)
 - This plan identified and addressed locations with a history of pedestrian safety crashes and proactively addressed pedestrian crash risk through identifying priority corridors.



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Statewide Bicycle and Pedestrian Program
 Virginia Department of Transportation (VDOT) Bicycle and Pedestrian Program has provided planning assistance to state and local transportation planners since it was established in the late 1970s. At VDOT, the program plays a leadership role in advancing bicycle and pedestrian accommodations throughout Virginia.

The program is within the Transportation and Mobility Planning Division and part of the Multimodal Section which includes the [Toll Lane, Bus and Sub-Compact, Smart](#) programs. The Statewide Bicycle and Pedestrian Program oversees and coordinates implementation and emergency efforts to shape bicycle and walking policies and programs and to ensure interstate consistency with the Commonwealth Transportation Board's 2024 [Policy for Transportation Service and Pedestrian Accommodations](#).

If you would like to receive periodic updates on Bicycle and Pedestrian Program activities, please sign up with the [newsletter](#) below.

Bicycle and Pedestrian Program Spotlight

- [U.S. Bicycle Routes](#)
- [www.LoveIt.com](#)
- [Bicycles of America Tour Study \(PDF\)](#)
- [State Bicycle Policy Plan](#)
- [State Pedestrian Policy Plan](#)

Virginia Department of Transportation
 John Bowen, Statewide Bicycle and Pedestrian Planner
 1401 E. Broad St.
 Richmond, VA 23219-2182
 (804) 271-4688
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Program created Nov. 1, 2014

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Treatments

- Pedestrian Crossing Treatments

- High-Visibility Crosswalks
- Rectangular Rapid Flashing Beacons (RRFB)
- Pedestrian Hybrid Beacon (PHB)
- Raised Crosswalk

- Intersection Safety Treatments

- Left-Turn Hardening
- Speed Management via Signal Timing Strategies
- Pedestrian Signal Control Treatments
- Smart Lighting

- Bicycle Facilities

- Side Path
- Shared Use Path
- Traditional Bicycle Lane
- Buffered Bicycle Lane
- Separated Bicycle Lane
- Contraflow Bicycle Lane

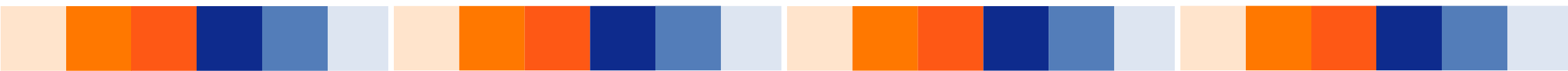
- Bicycle Treatments at Intersections

- Green Pavement Markings
- Bikes at Roundabouts
- Bike Boxes & Two-Stage Left-Turn Box
- Protected Intersection



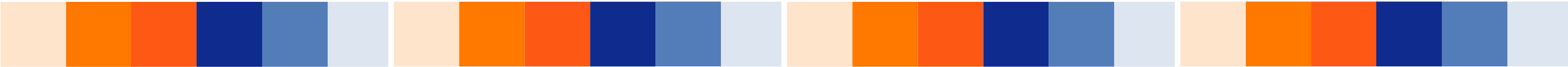
Treatment Highlights

Contraflow Bicycle Lane



Treatment Highlights

Pedestrian
Hybrid Beacon



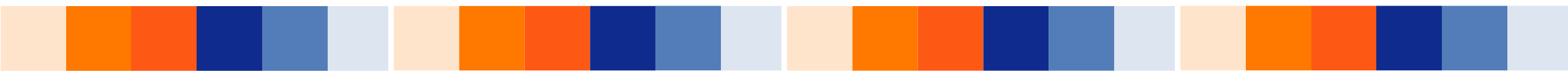


[Treatment Animations YouTube Playlist](#)

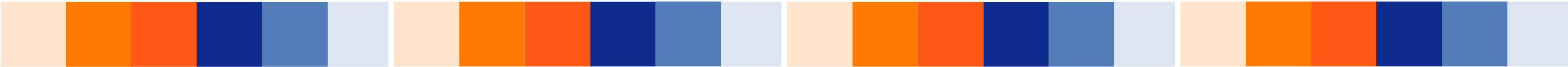


Treatment Highlights

Protected Intersection

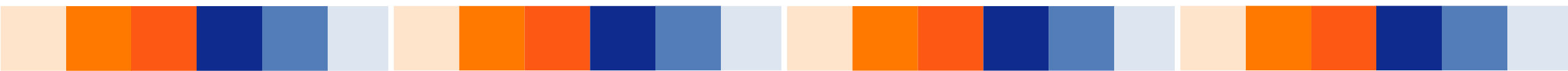


Treatment Highlights




Treatment Highlights

Left-Turn
Hardening




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
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- [Bicycles of America Tour Study \(PDF\)](#)
- [Safe Routes from Home](#)
- [Safe Pedestrian from Home](#)

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Thank you! Questions?

