



Safer, More Equitable Mobility: Advisory Bike Lanes in West Palm Beach

Inspired by Dutch CROW, innovative lane-sharing with motorists and cyclists has been a goal as community improvement in the City of West Palm Beach.

by Scott Edgar, PE
and
Lina Camacho, PE

When the City of West Palm Beach sought to make improvements to Spruce Avenue, a residential street in the Old Northwood and Northboro Park historic districts, it set goals beyond replacing aged infrastructure.

One of the city's goals was to improve the community. At the heart of the city's vision was to create safer mobility for all modes of travel by leveraging the existing bicycle infrastructure. The final design, inspired by the Dutch CROW, known as the Netherlands' design manual for bicycle traffic, brought an innovative lane-sharing concept to motorists and bicyclists alike.

This project was the first use of Advisory Bike Lanes (ABL) in the city's bicycle infrastructure.

Choosing Spruce Avenue

Several elements contributed to choosing Spruce Avenue for the unique enhancements that would accommodate automobile, bicycle, and pedestrian traffic while also preserving the neighborhood's scenic qualities.

Low traffic volume, low speed, and existing on-street parking providing the necessary width to repurpose for bike lanes all made Spruce Avenue an ideal candidate for the ABL concept. Additionally,

community support for the project was high, and many desirable destinations are accessible from the corridor.

The nearly mile-long segment between 25th Street and 40th Street serves as frontage to many historic homes, and it provides passage to parks, places of worship, shopping, dining, and an elementary school, all in downtown West Palm Beach. The area is a natural complement to the city's bicycle infrastructure, which is further connected through 36th Street to North Flagler Drive to the east and through North Australian Avenue to the west.

Dutch CROW and Bicycle Travel

The Dutch CROW is famous for its cycling infrastructure and has one of the highest rates of bicycle use in the world. In the U.S., there is growing interest in shared-road concepts, whereas 47% of adults have stated that they want to ride bicycles more often.¹

Key to the ABL concept is supportive traffic-calming designs. The elements work together to provide motorists with guidance for yielding to bicyclists, and to provide bicyclists with a safer means for traveling along roadways.

Calming Traffic

Since safety was at the Spruce Avenue design improvements' forefront, roundabouts were reconstructed at selected intersections to enhance traffic-calming elements, further supporting Vision Zero West Palm Beach, a citywide initiative to create safer streets for people using any form of transportation.² The improvements accommodate pedestrians using the new crosswalks, bicyclists, and vehicles, including those of emergency responders.

Throughout the segment, the asphalt pavement was milled, resurfaced, and restriped with a two-way 16-foot travel lane and 5.5-foot shared bike lanes on either side. Sidewalks were replaced with 5-foot concrete sidewalks to facilitate pedestrian mobility. Adding community-minded signage, pavement markings, and ADA-compliant curb ramps helped emphasize the traffic-calming elements.

Other improvements included the addition of speed humps to reduce traffic speed and support the new advisory bike lanes.



Quality-of-Life Enhancements

Landscaping was another important element in the design. The use of native trees, shrubs, and plants enhances the aesthetics and gives the community a sense of place and charm. Residents appreciate the neighborhood's scenic route while traveling to downtown attractions, whether they are behind a steering wheel or enjoying the view from a bicycle seat.

The project also improved stormwater-drainage flow, providing benefit to residents.

A Vision for the Community

The city was inspired by a vision and then seizing an opportunity for greater community enhancement by transforming a roadway into one that encourages interconnectivity among the community's attractions.

The result of the city's investment in an innovative solution that benefits users of all ages, abilities, and modes of transportation, making the City of West Palm Beach an attractive place to live, work, and do business.

About the Authors:

Lina Camacho, PE is a Senior Project Engineer for the City of West Palm Beach, with over 10 years of experience in civil engineering in the private and public sector. She graduated from Florida Atlantic University.

Scott Edgar, PE is the Southeast Regional Manager/Project Manager at Erdman Anthony's West Palm Beach office. He has a Bachelor of Science degree in civil engineering from the University of Florida and is a Florida professional engineer. He also is a Boynton Beach resident who has over 22 years of design and management experience in transportation, including urban and rural highway design.

¹ PeopleForBikes.org

² www.wpb.org/our-city/mayor-s-office/vision-zero