



8th Avenue Walkable Community Workshop

Belmar, Monmouth County, NJ

2024



About the Report

This report has been prepared as part of the North Jersey Transportation Planning Authority (NJTPA) Complete Streets Technical Assistance program with financing by the Federal Transit Administration and the Federal Highway Administration of the U.S. Department of Transportation. This document is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The NJTPA is solely responsible for its contents.

The report was authored by staff at the Alan M. Voorhees Transportation Center (VTC) at Rutgers, The State University of New Jersey, and reviewed by Sustainable Jersey and the NJTPA.

The Alan M. Voorhees Transportation Center

The Alan M. Voorhees Transportation Center (VTC) is a national leader in the research and development of innovative transportation policy. Located within the Edward J. Bloustein School of Planning and Public Policy at Rutgers University, VTC has the full array of resources from a major research university on transportation issues of regional and national significance.

Alan M. Voorhees Transportation Center

Edward J. Bloustein School of Planning and Public Policy
Rutgers, The State University of New Jersey
33 Livingston Avenue, Fourth Floor
New Brunswick, New Jersey 08901

Sustainable Jersey

Sustainable Jersey (SJ) is a nonprofit organization that provides tools, training and financial incentives to support communities as they pursue sustainability programs. By supporting community efforts to reduce waste, cut greenhouse gas emissions, and improve environmental equity, Sustainable Jersey is empowering communities to build a better world for future generations.

Sustainable Jersey

Sustainability Institute at the College of New Jersey
Forcina Hall, 3rd Floor
2000 Pennington Rd.
Ewing, NJ 08628

North Jersey Transportation Planning Authority

The North Jersey Transportation Planning Authority (NJTPA) is the federally authorized Metropolitan Planning Organization for 7 million people in the 13-county northern New Jersey region. Each year, the NJTPA oversees more than \$3 billion in transportation improvement projects and provides a forum for interagency cooperation and public input. It also sponsors and conducts studies, assists county planning agencies, and monitors compliance with national air quality goals.

North Jersey Transportation Planning Authority

One Newark Center, 17th Floor
Newark, NJ 07102

Acknowledgments

The authors of this report would like to extend special thanks to the following Belmar officials and other key stakeholders that made this project possible:

- Mayor Gerald Buccafusco
- Borough Administrator Kevin Kane
- Police Chief Tina Scott
- Dianne Veilleux, Environmental Commission Chair
- John Walsh, Tourism/Special Events
- James Oris, Municipal Engineer

The team would also like to thank all those who participated in the walk audit and were able to provide their valuable insights into the study area. Rutgers graduate students Nikita Soni and Cole Johnson provided support in the preparation of this report.



Figure 1. Workshop attendees learning about Complete Streets.

Table of Contents

Executive Summary	1
Background	2
What is a Complete & Green Street?	3
Benefits of Complete Streets	4
Complete Streets in Belmar and New Jersey	5
Walking Audit Location and Assessment of Need.....	5
Workshop Methodology	7
Workshop Findings	8
Corridor Summary.....	8
Detailed Conditions and Recommendations	12
Additional Recommendations	19
Conclusion	21
Appendix	23
A. Workshop Flyers	24
B. Workshop Agenda and Field Audit Form.....	26
C. Potential Funding Resources	30
D. Design Resources	33

Executive Summary

Complete Streets are streets designed for all users, all modes of transportation, and all ability levels. They balance the needs of drivers, pedestrians, bicyclists, transit riders, emergency responders, and goods movement based on local context.

-State of New Jersey Complete Streets Design Guide

The Borough of Belmar, New Jersey, participated in the 2024-2025 North Jersey Transportation Planning Authority (NJTPA) Complete Streets Technical Assistance (CSTA) Program. This report identifies several recommendations to promote walking and bicycling as a means of travel and improve the pedestrian experience along a section of 8th Avenue in Belmar (Figure 2).

This report calls for: adopting a Complete Streets policy or ordinance; providing and maintaining high-quality pedestrian infrastructure; adding lighting; and addressing deficiencies in signage and striping. The recommendations in this report were developed through a Walkable Community Workshop (WCW) that was held on August 22, 2024, which is a collaborative effort with municipal employees and Borough stakeholders.

The 8th Avenue corridor under consideration is a municipal roadway located in the center of the Borough. The land use primarily consists of large detached homes, some of which are summer rentals. While many residents rely on walking and bicycling for their day-to-day activities, Belmar attracts crowds during the summer months, many of whom arrive in a personal vehicle. As 8th Avenue connects to Route 35 on the western edge of town, the corridor experiences higher traffic volumes than parallel routes.

The lessons learned by all participants during the workshop can be applied to other roadways in Belmar. The field audit form and a list of potential funding resources can be found in this report's appendices. These resources can be used to conduct other walk audits within the Borough.

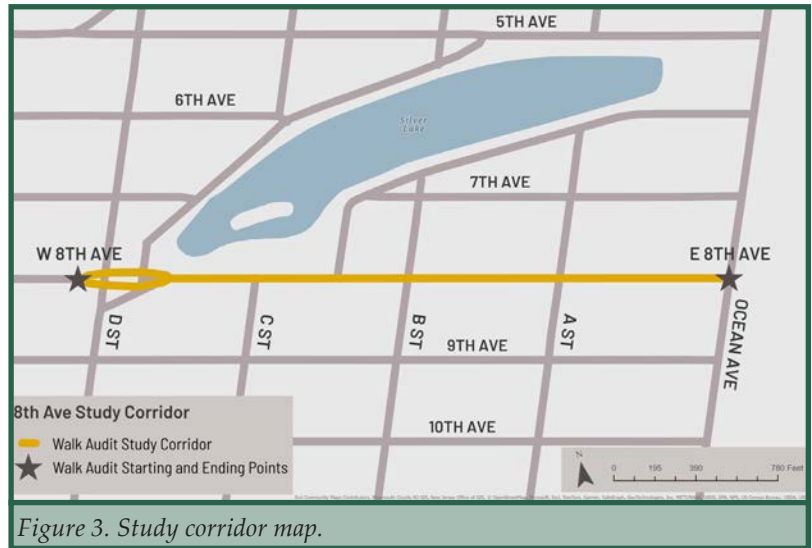


Figure 2. Looking west on 8th Avenue from the Belmar boardwalk.

Background

The NJTPA created the CSTA Program in 2018 to assist municipalities in advancing or implementing Complete Streets. This report is part of the fourth round of the CSTA Program, in which five municipalities were selected to receive technical assistance. Municipalities were chosen for the program through a competitive application process based on the following criteria: the need for technical assistance, commitment to project implementation, opportunity for public engagement, and the strength of their respective municipal teams. In addition, projects at locations with high crash rates and projects with the potential to involve and benefit traditionally underserved populations were given additional consideration.

Belmar requested a Walkable Community Workshop on 8th Avenue, a municipal roadway. Belmar is a walkable community with 1.7 square miles of land organized along a uniform street grid. Main Street (NJ-30), on the western side of the Borough, is where the majority of businesses and civic buildings are located, including the NJ TRANSIT train station. Located .65 miles to the east, Ocean Avenue (CR-18) fronts the beach and boardwalk. Ocean Avenue has a mixture of small businesses, vacation lodging, and residential properties. Ten avenues connect Main Street to Ocean Avenue. Although these avenues all appear nearly identical (30-foot wide roadways fronted by large detached residential homes) vehicular traffic is not evenly distributed.



While many residents walk and bicycle from their homes to both the beach and Main Street, Belmar attracts large crowds during the summer months thanks to a popular boardwalk and beach, creating traffic along the residential roadways. In their application, Belmar noted that the summer daytime population swells to more than 60,000, compared with 5,900 residents at other times of the year. According to traffic counts conducted by the municipality, 8th Avenue is the most highly trafficked municipal roadway in the Borough, with an average daily traffic count of over 7,000 vehicles during summer weekends. In addition to the higher traffic volumes, Eighth Avenue was selected for study because the Borough plans to reconstruct it in 2025.

Prior to conducting the workshop, the CSTA project team met with Belmar officials to discuss the study area and gain a better understanding of the corridor and the need for a walking audit. According to municipal officials, increases in vehicular traffic has created safety concerns, especially for those walking and bicycling. Belmar also wants to make it easier for residents, travelers, and tourists to access all the recreational amenities that Belmar has to offer without having to drive.

Municipal employees and stakeholders, including area residents, participated in a WCW on August 22, 2024. Participants learned about the diverse benefits of Complete Streets and how improvements could be applied in their community. The workshop included an hour-long classroom-style training to ensure all participants were familiar with Complete Streets and best practices for bicycle and pedestrian design. The participants then walked the length of the study corridor with the project team, making note of existing conditions, observing driver and pedestrian behavior, and talking about future needs. As shown in Figure 3, the study corridor extended along 8th Avenue, between Ocean Avenue and D Street.

What is a Complete & Green Street?

Complete & Green Streets are part of a movement where municipalities, counties, and states adopt policies that require road engineering and design projects to consider the mobility needs of everyone (Figure 4). Everyone includes all roadway users and all travel modes—pedestrians, cyclists, transit users, freight, and travelers of all ages and abilities.

Section 11206 of the Bipartisan Infrastructure Law (BIL), also known as the Infrastructure Investment and Jobs Act (IIJA) of 2021, defines Complete Streets standards or policies as those which “ensure the safe and adequate accommodation of all users of the transportation system, including pedestrians, bicyclists, public transportation users, children, older individuals, individuals with disabilities, motorists, and freight vehicles.”

Complete Streets should tailor the road to the specific needs of the surrounding environment. A school zone, for instance, may require reduced speed limits, narrower travel lanes, and wider sidewalks to achieve a safer setting for students. Meanwhile, streets along transit routes should accommodate the needs of commuters with benches, shelters, lighting, and signs (Figure 4).

Regardless of the context, Complete & Green Streets should be designed to improve safety for pedestrians and bicyclists who are the most vulnerable road users. Reduced speed limits, raised medians, and other design elements can help create a safer environment for older adults, children, and people with disabilities. To put traffic speeds into perspective, a 10-mph reduction in vehicle speed dramatically decreases the chance of pedestrian fatalities in a collision. The U.S. Department of Transportation (USDOT) cites collisions in which pedestrians are struck by a vehicle traveling 40 mph as being fatal 85 percent of the time. Comparatively, at 30 mph, pedestrian fatality rates drop to 45 percent, and at 20 mph they are down to five percent (Figure 4 and Figure 5). Complete & Green Streets recognize that all transportation network users, whether traveling by car, bus, train, or taxi, become pedestrians at some point during their journey.

Complete Streets is also an implementation strategy of the Safe System Approach, adopted as the guiding principle behind the USDOT National Roadway Safety Strategy, which holds that deaths and serious injuries due to roadway crashes are unacceptable. The Safe System Approach refocuses transportation system design and operation on anticipating human errors and reducing impact forces to minimize crash severity and save lives. Under this approach, transportation agencies implement proactive, redundant systems of safety to prevent crash fatalities and serious injuries. Complete Streets addresses two of the five elements of a Safe System (Safe Roads and Safe Speeds) and advances the proactive implementation of safety infrastructure.

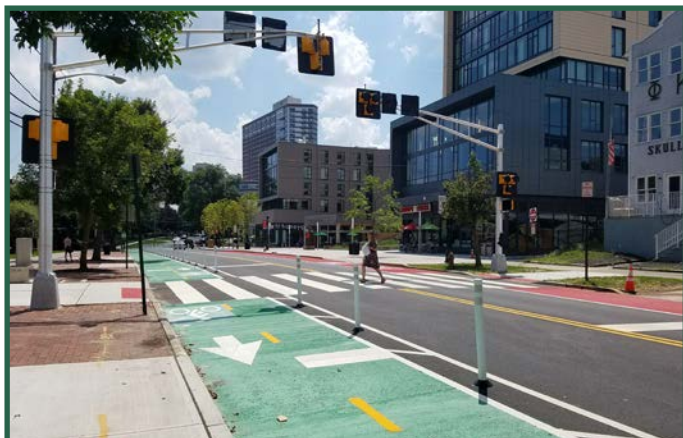


Figure 4. This Complete Street in New Brunswick, NJ, features a bicycle path, bus lane, and enhanced pedestrian crossing.

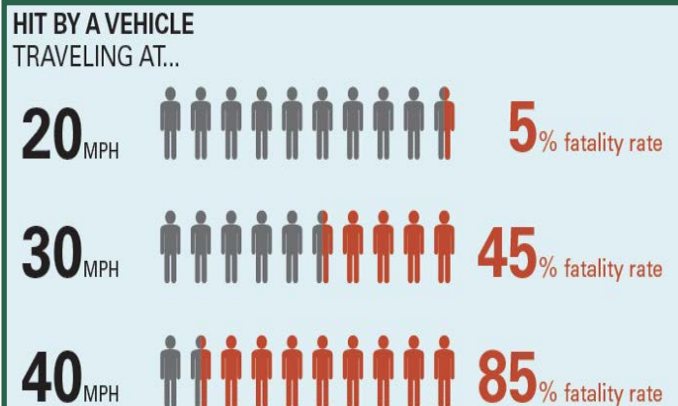


Figure 5. Graphic showing increased fatality rate as vehicle speeds increase. (USDOT)

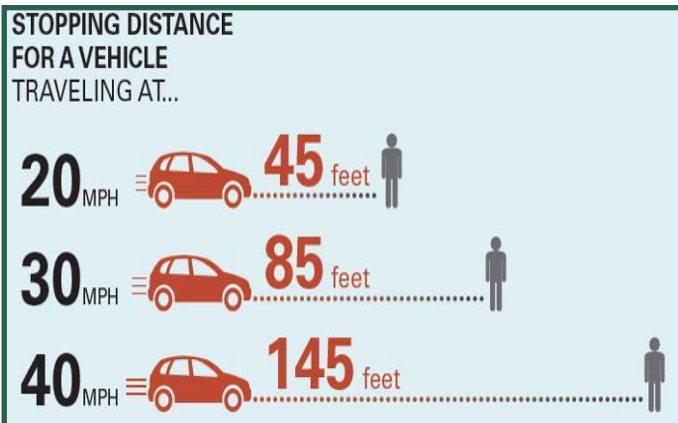


Figure 6. Graphic showing increased stopping distance as vehicle speeds increase. (USDOT)

Benefits of Complete Streets

While the primary benefit of Complete & Green Streets is improved safety for all roadway users, there are other positive outcomes. Complete Streets create better places to live, work, and do business.

Public Health

Complete Streets make it possible for people to routinely choose walking, bicycling, and transit to access community destinations such as supermarkets, medical services, and entertainment destinations, leading to greater physical activity and social connectivity. Improving walkability, bikeability, and transit access helps solve urgent public health problems by improving safety and sociability and by reducing air pollution.

Green Streets

Green Streets use green infrastructure practices installed within the public right-of-way to manage stormwater while preserving the primary function of a street as a conduit for vehicles, pedestrians, bicyclists, and transit riders (Figure 7). Green Streets and Complete Streets can complement each other by creating an inviting and comfortable walking and bicycling environment by incorporating green infrastructure elements, such as street trees and rain gardens that provide shade and remove pollutants from the air, while minimizing flooding along streets and sidewalks that interferes with and discourages walking and bicycling.



Figure 7. Green infrastructure used to narrow the roadway and provide a shorter crossing distance for pedestrians.

Economic Vitality

Improving streetscapes can help to strengthen or revitalize business districts. Complete Streets generate more foot traffic when they create great places where people want to be, which can encourage both residents and visitors to spend more money at local shops and restaurants. For example, pedestrianizing Division Street in Somerville, New Jersey attracted new businesses and helped to revitalize a struggling business corridor (Figure 8). The economic benefits also extend to individuals by lowering costs related to car ownership. By walking, biking, and taking transit for more trips, households save money on driving expenses like gasoline, parking, and maintenance, and can choose to own fewer vehicles – or no vehicles at all.



Figure 8. Division Street in Somerville was converted into a popular pedestrian plaza.

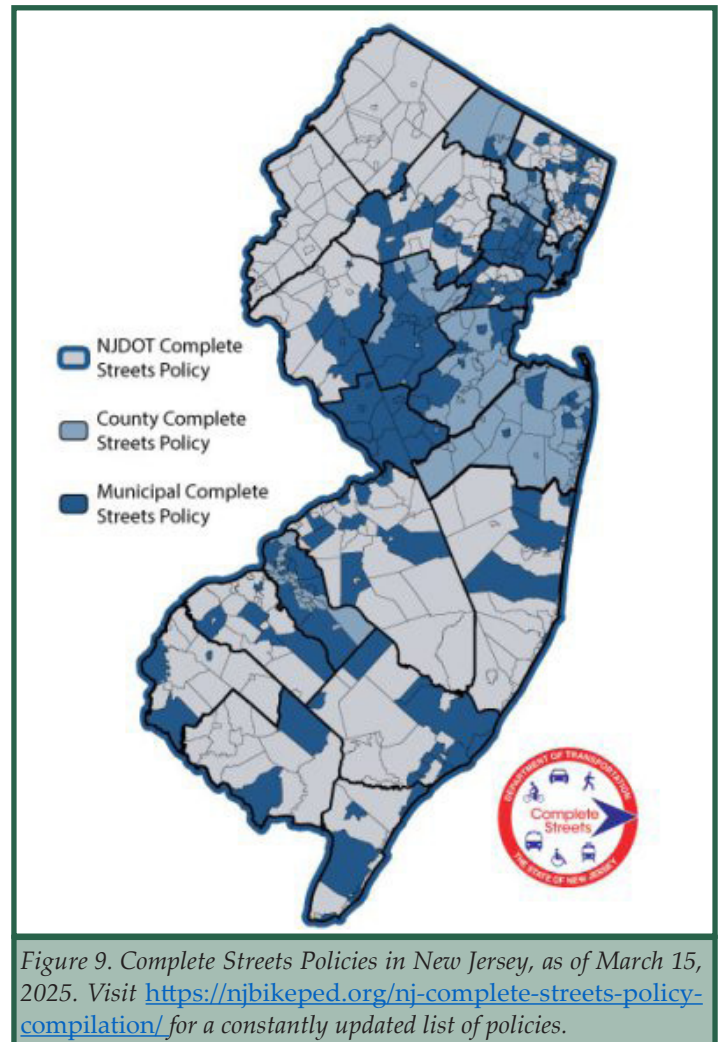
Transportation Equity

Fair and equitable distribution of transportation investments is a fundamental principle of Complete Streets. All users of the transportation system should benefit from our shared streets regardless of income, ability, or other factors. For those whose transportation choices are limited by circumstance or location, pedestrian, bicycle, and transit access to essential services and community destinations such as hospitals, medical offices, senior centers, schools, employment centers, bus routes, and transit stops can be life-changing.

Complete Streets in Belmar and New Jersey

New Jersey is a leader in the Complete Streets movement. In 2009, NJDOT was among the first state DOTs in the nation to adopt an internal complete streets policy. Since 2009, NJDOT has funded seven Complete Streets Summits and over a dozen local, regional, and statewide in-person and online educational workshops intended to disseminate the latest information about complete streets to planners, engineers, elected officials, and advocates. In 2017, NJDOT released the New Jersey Complete Streets Design Guide to inform New Jersey communities on how to implement Complete Streets projects. In 2019 (with updates in 2020), NJDOT released the Complete & Green Streets for All: Model Complete Streets Policy and Guide to serve as a resource for local best practices in policy language. One of the positive outcomes of these efforts is that communities of all sizes throughout the state have joined NJDOT in adopting Complete Streets policies. Of New Jersey's 21 counties, eight have adopted Complete Streets policies. Additionally, 182 municipalities have implemented their own policies (Figure 9). In November 2024, NJDOT updated its internal policy and checklists¹.

Currently, Monmouth County has a Complete Streets policy, but Belmar does not.



Walking Audit Location and Assessment of Need

According to the 2020 US Census, Belmar is home to approximately 5,907 residents within an area of 1.7 square miles. The median age is 45.3, and the estimated median household income is \$89,736. The median home value is \$716,600, which is higher than the state median. The number of bicycle commuters in Belmar has decreased from 4.2 percent in 2015 to 1.5 percent in 2020, although that data was affected by the COVID-19 pandemic and does not include non-commute trips, which make up the majority of bicycle travel. Seventy-two percent of residents drive alone to work, while 2.6 percent walk to work. The population in Belmar is majority white (80 percent). About 11 percent of the population aged five years and over speak Spanish at home, which is lower than the state average. Belmar is also home to a large population of renters as compared to homeowners. As a beach town, it sees a significant growth in its population during the summer season.

Eighth Avenue is an east-west corridor located in the center of the Borough. The land use primarily consists of large detached homes, some of which are summer rentals. There is one commercial property (a 7-Eleven) at the eastern end of the corridor. Silver Lake Park borders the roadway along the western end of the study area. The homes along the corridor are within walking distance of the beach in one direction and Belmar's downtown Main Street in the other direction. While many residents rely on walking and bicycling for their day-to-day activities, Belmar attracts crowds during the summer months, many of whom arrive in a personal vehicle.

1. <https://www.nj.gov/transportation/eng/completestreets/policy.shtm> and <https://www.nj.gov/transportation/eng/completestreets/resources.shtm>

Although Belmar's roadway system is a grid, travel along municipal roadways is not evenly distributed. For drivers coming from the north, 8th Avenue presents the first opportunity to turn off State Route 35 and access the beach. According to traffic counts conducted by the municipality, 8th Avenue is the most highly trafficked municipal roadway in the Borough, with an average daily traffic count of more than 7,000 vehicles during the summer. According to municipal officials, this vehicular traffic volume has created safety concerns, especially for those walking and bicycling. Belmar also wants to make it easier for residents, travelers, and tourists to access all the recreational amenities that Belmar has to offer without having to drive. Addressing safety concerns for bicyclists will help residents navigate their community.

Traffic Volumes, Speed, and Crash History

The Belmar Police Department assisted the project team by providing traffic and speed counts on 8th, 9th, and 10th Avenues. In addition, NJDOT has older data from 8th Avenue near the intersection with West Railroad Avenue. These data do not indicate that speeding is a significant issue on these avenues, however it does indicate that 8th Avenue carries about twice as much traffic as neighboring streets.

8th Avenue has a speed limit of 25 mph. Speed data was collected on 8th Avenue near the intersection of B Street in July and August 2022. The speed data was collected with a sign that provided feedback to drivers, which may have caused drivers to slow down. The data found an average speed of 17 mph (July) and 14 mph (August), with an 85th percentile speed of 22 mph in July and 20 mph in August. The highest speed in any observation was 52 mph. Additional data collected in 2024 found an average speed of 21 mph, with slightly higher speeds observed during the off-season. During the ten-day observation period, there was an average of 2,411 vehicles per day.

As a comparison, speed data was also collected in 2022 for 9th and 10th Avenues. Data from 9th Avenue near E Street shows an average speed of 17 mph, with the 85th percentile speed of 21 mph and a maximum of 36 mph. During the ten-day period, there was an average of 897 vehicles per day. Data from 10th Avenue and C Street shows an average speed of 19 mph, with an 85th percentile speed of 25 mph and a maximum of 42 mph. During the fourteen-day period, there were an average of 1,220 vehicles per day on that roadway.

NJDOT has recorded traffic counts twice for 8th Avenue, west of the study area. In late June 2018, NJDOT observed an annual average daily traffic (AADT) volume of 7,387 on 8th Avenue between W. Railroad Avenue and Main Street. Data collected at that same location in May 2015 found an AADT of 7,318.

According to NJDOT crash data posted on their crash analysis website Safety Voyager, over the six years from 2018-2023, there have been six reported crashes involving a bicyclist and one involving a pedestrian along the study corridor (Table 1). Fortunately, there were no fatalities. Of those crashes, four took place on Ocean Avenue near the intersection with 8th Avenue. The other three crashes happened near or on the intersection of 8th Avenue with D Street. Although more crashes occurred during the summer season, they also occurred during the off-season. Crashes occurred at all times of day, morning, afternoon, and evening.

Table 1. Pedestrian and bicycle crashes in study area, 2018-2024.

Location	Date	Time	Crash Type	Ped./Cyclist Age	Injury Severity	At Intersection	Lighting Condition
Ocean Avenue and 8th	7/7/2023	9:17 am	Bicyclist	76	Property Damage	No	Daylight
8th & D St. / N. Lake Dr.	9/20/2021	5:30 am	Bicyclist	64	Injury	Yes	Dark (street lights on)
Ocean Avenue and 8th	10/10/2020	1:06 pm	Bicyclist	67	Injury	Yes	Daylight
8th & D St. / N. Lake Dr.	7/23/2020	5:32 pm	Bicyclist	17	Injury	Yes	Daylight
Ocean Avenue and 8th	6/10/2020	3:33 pm	Bicyclist	42	Injury	No	Daylight
Ocean Avenue and 8th	8/5/2018	7:28 pm	Bicyclist	59	Injury	No	Dusk
8th & D St. / N. Lake Dr.	7/18/2018	10:59 am	Pedestrian	10	Injury	Near	Daylight

Source - Safety Voyager

Workshop Methodology

Prior to conducting the workshop, the CSTA project team met virtually with Belmar officials to discuss the study corridor and gain a better understanding of the roadway, its location, use, and appropriateness for a walk audit. Participants in the WCW held on August 22, 2024, included residents, Borough staff, and staff of EZ Ride Transportation Management Association. Meeting details were shared widely among residents online and through word of mouth, resulting in over 20 attendees and local media coverage.

The WCW included a one-hour presentation on the fundamentals of Complete Streets and best practices concerning pedestrian and bicycle design to ensure that all attendees had a common understanding of Complete Streets and the relationship between road design and behavior (Figure 10). It included instruction on ways to better support walking and bicycling and insight into the causes of vehicular speeding. Additionally, the presentation covered traffic engineering techniques to better accommodate bicyclists and pedestrians and proven measures to reduce speeding and improve overall safety along the corridor.

Following the presentation, the project team provided participants with a walk audit form so that they could take notes during the audit. The project team and participants then split up into two groups, each walking the entire length of the corridor (Figure 11). The audit walk consisted of discussing issues, writing observations, and identifying the existing conditions observed by participants familiar with the area (Figure 12). The project team and participants then conducted a post-audit debrief meeting to review the most important findings and identify potential recommendations for improvements. Following the WCW, the project team developed a series of recommendations for the corridor.



Figure 10. Attendees learning about Complete Streets.



Figure 11. Attendees starting the audit, on 8th Ave. and Ocean Ave.



Figure 12. Attendees observing existing conditions on 8th Avenue and B Street.

Workshop Findings

This section highlights corridor-wide commonalities of the study area, including sidewalks, intersections, safety, and comfort, which were observed during the walking audit portion of the walkable community workshop. This is followed by a detailed description of conditions along the route.

Corridor Summary

Sidewalks

Sidewalks are present on both sides of 8th Avenue and are in generally good condition. At a few locations, the sidewalk is uneven due to age (Figure 13). An uneven sidewalk creates a tripping hazard for pedestrians and negatively impacts accessibility. At a couple of locations, vegetation from adjacent gardens narrowed the width of the walkway (Figure 14). By Ocean Avenue, diagonal parking decreases the usable sidewalk width (Figure 15). As the sidewalk crosses over dozens of driveways, the potential exists for parked cars to block the path of travel. During the audit, this was only observed temporarily when a driver blocked the sidewalk while unloading items.

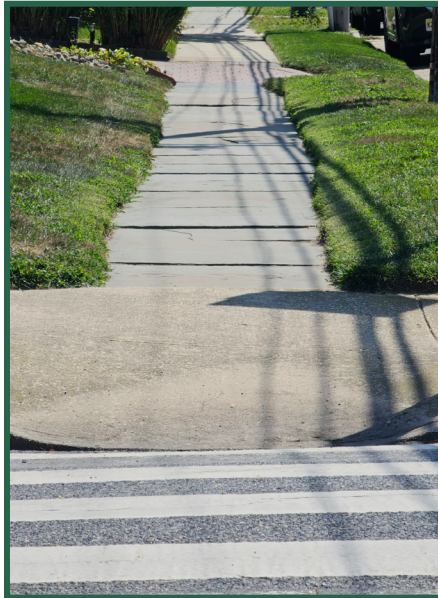


Figure 13. Uneven sidewalk near the corner of 8th Avenue and A Street.



Figure 14. Vegetation encroaching into the sidewalk near 8th Avenue and B Street.

The sidewalks along the corridor are generally five feet wide, widening to seven feet for a short segment near Ocean Avenue. Although five feet is typical for a residential roadway, it feels narrow for a corridor that receives many pedestrians during the summer (Figure 16). According to the Public Right-of-Way Accessibility Guidelines (PROWAG), the minimum sidewalk width requirement is 48 inches (four feet) for a continuous clear path of travel, excluding the width of any curb. Still, sidewalks should be constructed as wide as possible to accommodate pedestrian demand. In Belmar, it is typical to see families walking with coolers, chairs, and other beach accessories, which warrants wider sidewalks for comfort. There is no bicycle infrastructure (lanes or paths) along the corridor, which may lead bicyclists to choose to ride on the sidewalk, although none were observed during the audit.



Figure 15. Diagonal parking by Ocean Avenue.



Figure 16. Sidewalk texture can vary along the corridor.

Intersections and Crosswalks

Eighth Avenue has six intersections along the study corridor, none of which are signalized. 8th Avenue has a stop control at Ocean Avenue, B Street, and in the eastbound direction at D Street. 8th Avenue traffic does not have to stop at the intersection with A Street (Figure 17).

According to historic aerial imagery, a traffic oval was added where 8th Avenue intersects with Lake Drive and D Street at some point between 2002 and 2006 (Figure 18). Unlike a modern roundabout where traffic in the circle has the right of way, westbound traffic on 8th Avenue has the right of way over traffic within the oval, which has a stop control (Figure 19). As noted in Table 1, three of the seven collisions involving a bicyclist or pedestrian occurred around the oval.

Every crosswalk along the corridor is marked, mostly with high-visibility continental-style markings. Aerial imagery shows that Belmar has upgraded crosswalk striping throughout the corridor over the last decade. Standard markings are used across South Lake Drive, B Street, A Street, and across 8th Avenue at Ocean Avenue. Most crosswalks are short, except those at Ocean Avenue, which are 58-feet (across 8th Avenue) and 48-feet (across Ocean Avenue) long.

"No Parking" stencils have been painted near the intersections, however the paint is faded and easy to miss. Most curbs within the no parking areas are also painted yellow.

The curb ramps along the corridor do not appear to meet current ADA standards (Figure 20). In addition, an exposed drain pipe at B Street could present a hazard to pedestrians, bicyclists, and drivers. However, the Borough plans on addressing that situation during a planned roadway reconstruction in 2025. Evidence of ponding was observed at one corner, making the ramp difficult to use after rain. The prevalence of gravel along the sidewalks also indicates that drainage concerns are ongoing (Figure 21).



Figure 17. 8th Street and A Street.



Figure 18. Looking toward the traffic oval.



Figure 19. Looking north from S. Lake Dr., there is a stop control to enter the oval and again to continue straight or left.

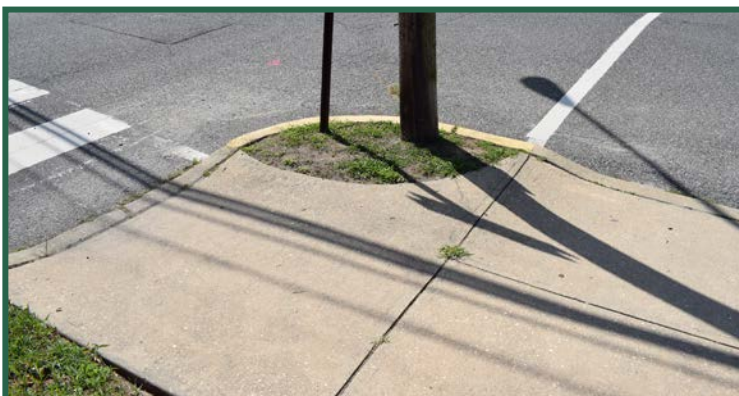


Figure 20. Non-compliant curb ramps.

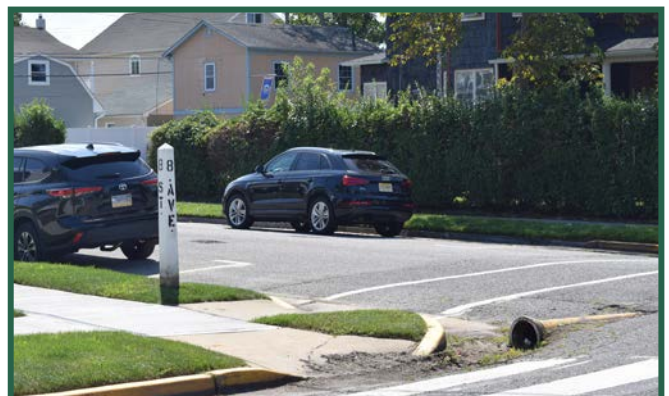


Figure 21. Exposed drain and gravel.

Safety

Safety considerations that can be observed through a walking audit include insufficient lighting, vehicle speeding, unsafe driver, pedestrian, or bicyclist behavior, and general level of comfort influenced by the road environment and surrounding land uses.

Although the audit occurred during the day, the placement of light poles suggests that the corridor may lack sufficient lighting for pedestrians, especially at intersections. The distance between the existing overhead cobra lighting fixtures indicates that they are too far apart to provide uniform lighting without excess shadows. Each block appears to have just one light at the mid-point and one near an intersection (Figure 22). The intersection with Ocean Avenue has lighting along the boardwalk but no lighting over the crosswalks (Figure 23).

The safety needs of pedestrians include lighting along sidewalks and at crosswalks for visibility to vehicle traffic. The lighting needs of both the sidewalks and the crosswalks should be assessed. As the corridor is residential, care must be taken when adding lighting to ensure proper shielding is used so that lighting illuminates the roadway and not the homes.

Lighting fixtures are also present along the perimeter of Silver Lake Park, including along the sidewalk between 8th Avenue and Jane Magovern's Playground (Figure 24). As the audit was conducted during the day, the team was unable to see how much light these provided. However, residents stated that some of the lights did not work or provided too little illumination to be useful.

The Belmar Police Department provided the project team with speed data along the corridor. The data found that speeding is not an issue, with an 85th percentile speed of 22 mph, compared with the posted speed limit of 25 mph. However, a few individual vehicles were observed going over 40 mph. During the audit, residents stated that they were concerned about minor collisions involving the placement of parked cars along the corridor, as vehicles parked too close to driveways impede access and obstruct sight lines of the roadway when exiting.

There is no bicycle infrastructure along this corridor, aside from bicycle parking at the playground and boardwalk. It is common for residents and visitors to travel by bicycle to the beach and around town, and both drivers and bicyclists must share the road (Figure 25). Four bicycle collisions were recorded over the last six years at the intersection with Ocean Avenue.



Figure 22. Overhead lighting, located mid-block.



Figure 23. Looking at 8th Avenue from Ocean Avenue.



Figure 24. Lighting fixture in Silver Lake Park.



Figure 25. Bicyclist on 8th Avenue.

Comfort and Appeal

The area was observed to be free of litter, graffiti, and other quality-of-life concerns that could discourage walking or bicycling. Most residential properties are well maintained (Figure 26). While some segments have attractive, mature trees, other segments lack trees close to the roadway (Figure 27). Trees can create a buffer between pedestrians and moving vehicles, increasing comfort. Trees are also essential in providing shade, helping to lower sidewalk temperatures during the summer. Residents noted that previous storms (such as Hurricane Sandy) and the sandy soil makes it difficult for large trees to survive along the blocks closest to the ocean.

There are some pedestrian amenities, including benches and trash cans, by the intersection with Ocean Avenue (Figure 28). Additional pedestrian amenities are located at Silver Lake Park (Figure 29).

Residents spoke about disruptions caused by trucks servicing the 7-Eleven located at the corner of Ocean Avenue (Figure 30). Trucks either reverse into the parking lot or load from 8th Avenue. Residents stated that this causes safety issues, traffic delays, and disruption due to the reverse warning noise. Residents also stated that the area around 7-Eleven could use more trash cans due to litter.



Figure 26. Well maintained properties along 8th Avenue.



Figure 27. Lack of street trees near Ocean Avenue.



Figure 28. Benches near Ocean Avenue.



Figure 29. Bicycle parking and shaded seating.



Figure 30. Truck unloading from roadway.

Detailed Conditions and Recommendations

This section looks at detailed conditions in each section of the corridor, with recommendations. Many of the recommendations can be implemented in the short term by changing line striping. These changes can later be formalized with permanent infrastructure.

8th Avenue and Ocean Avenue

Ocean Avenue (Monmouth County Route 18) runs parallel to the beach and boardwalk, connecting Spring Lake, Belmar, and Bradley Beach. At the intersection with 8th Avenue, Ocean Avenue is 48 feet wide, although it just has two lanes of traffic (Figure 31). Between intersections, the roadway widens to 64 feet to accommodate angled parking. 8th Avenue also widens at the intersection to 60 feet. Residents noted that the width results in frequent U-turns. Eleven angled pull-in parking spots are located on the north side of 8th Avenue. The southern side has one parking spot and two bidirectional driveways into the 7-Eleven (Figure 32). 8th Avenue has a stop control at Ocean Avenue.

There are crosswalks in all directions at the intersection. The crosswalks across Ocean Avenue are marked in a high-visibility pattern. A "stop for pedestrians" sign is located in the center of the roadway. However, there is no additional pedestrian crosswalk signage. The crosswalk across 8th Avenue is long and is not marked with high visibility striping.

In the northbound direction of Ocean Avenue, adjacent to the boardwalk, there is a section marked as "no parking" with a painted yellow curb. Use of this area as a loading zone appears to be neither prohibited nor expressly permitted. In the southbound direction, in front of 7-Eleven, three spaces are designated as 15-minute parking spaces.

There are no bicycle facilities on 8th Avenue or Ocean Avenue (Figure 33). However, there is ample bicycle parking located on the boardwalk (Figure 34). As noted in the "Comfort and Appeal" section, residents complained about truck traffic related to the 7-Eleven (Figure 35).



Figure 31. Pedestrians crossing Ocean Avenue.



Figure 32. Looking across 8th Avenue to the 7-Eleven.



Figure 33. Bicyclists on Ocean Avenue.



Figure 34. Bicycle parking on the boardwalk.

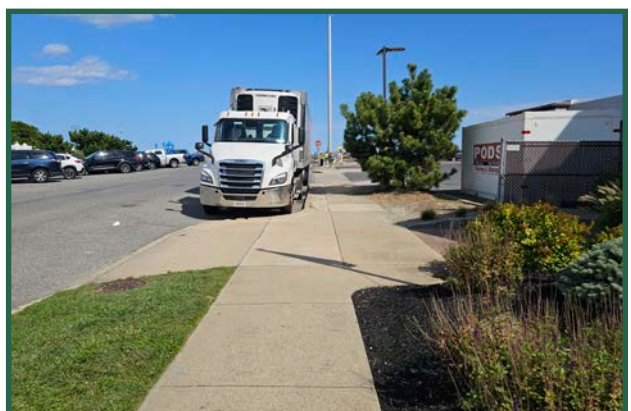


Figure 35. Truck loading from roadway.

Figure 36 shows an overhead view of the existing conditions. Figure 37 shows potential improvements. As Ocean Avenue is a county route, changes require the support and approval of county officials. Implementation may require an engineering study. A temporary version of the recommendations could be tested with a demonstration project as part of an additional study.

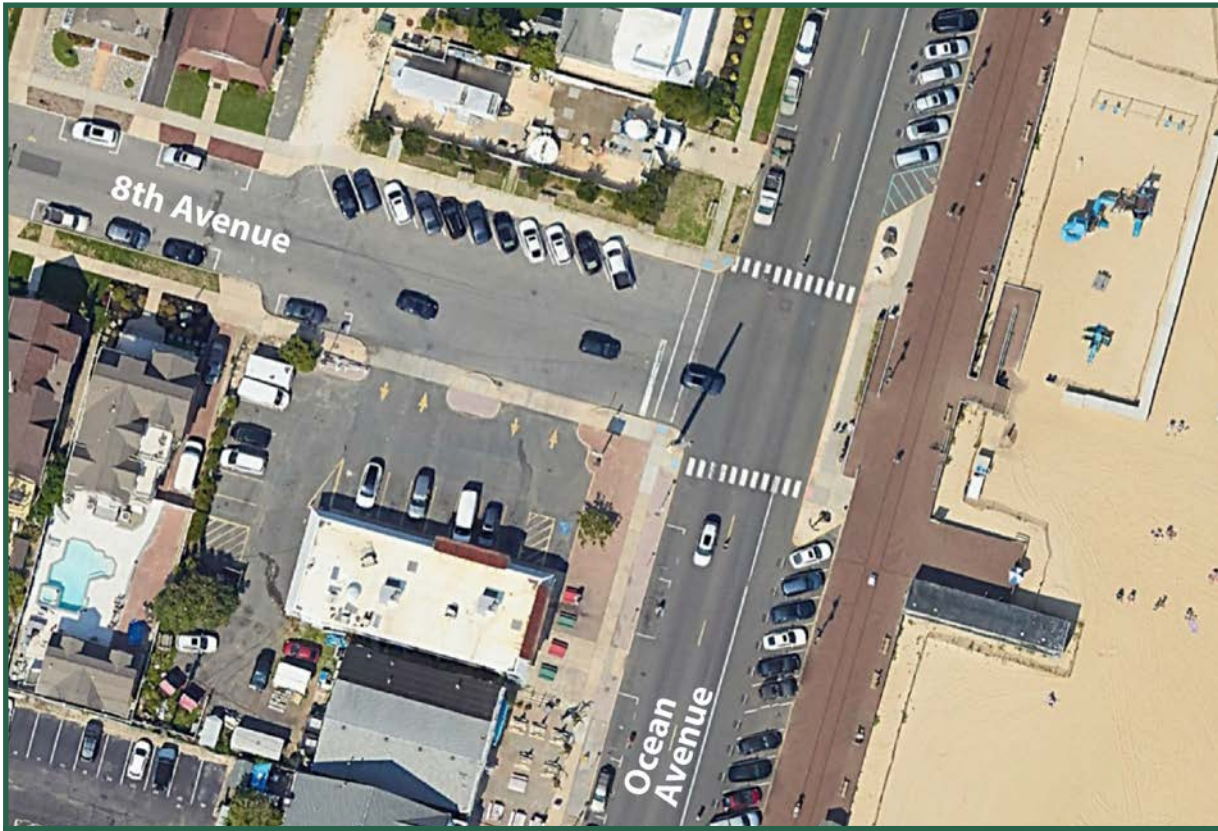


Figure 36. Aerial view of eastern end of corridor.



Figure 37. Potential improvements to eastern end of corridor.

Recommendations shown in Figure 37 include:

1. Pedestrian refuge islands in the center of Ocean Avenue, creating two 11-foot travel lanes (Figure 38).
 - a. Reduces pedestrian exposure from 48 feet to 22 feet.
 - b. Consideration of green infrastructure or art in reclaimed roadway space (Figures 40-42).
2. Large curb extensions on 8th Avenue, creating two 11-foot travel lanes.
 - a. Reduces pedestrian exposure from 60 feet to 22 feet.
 - b. Consideration of green infrastructure or art in reclaimed roadway space.
3. Signage and striping to prohibit stopping within the intersection.
4. Consideration of additional 15-minute parking spots to facilitate loading and unloading by beachgoers.
5. High visibility crosswalk striping and enhanced signage.
6. Bicycle shared lane striping and signage.
7. Switch angled parking to "reverse in" parking. This design has been shown to be safer as drivers reverse into an empty space instead of reversing into the roadway. The design also allows vehicle trunks to be accessed from the sidewalk.
 - a. Parking stops should be used to prevent larger vehicles from overhanging onto the sidewalk.
8. Clarify the driveway access to the rear of 98 Ocean Avenue (Figure 39). If the driveway is legal, extending the sidewalk can help prevent illegal parking.
9. Codify 85' truck loading area. Work with 7-Eleven to establish loading times that are less bothersome to neighboring residents.
10. Extend the sidewalk to create a buffer between the residential driveway and the truck loading zone.
11. Investigate closure of a driveway by working with 7-Eleven to see which trucks, if any, enter the parking lot to access the rear of the store.



Figure 38. Example of a road with a median and pedestrian refuge islands in the City of Charlotte, NC. Source: FHWA.



Figure 39. Driveway at rear of 98 Ocean Avenue.

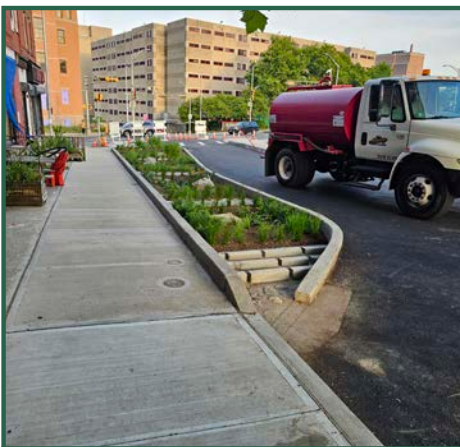


Figure 40. Curb extension in Newark designed to capture rainwater runoff.



Figure 41. Curb extension in Newark.

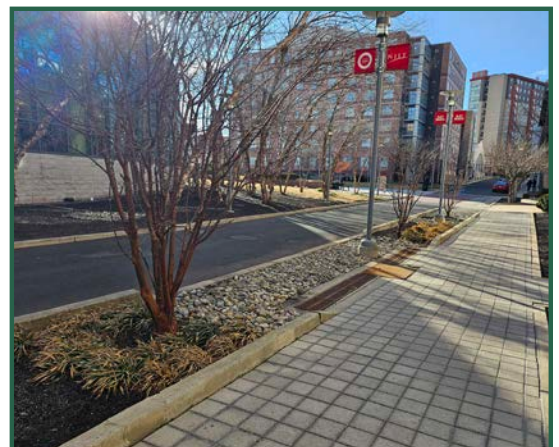


Figure 42. Green infrastructure in Newark.

8th Avenue and A Street

A Street is a 30-foot-wide one-way roadway running north (Figure 43). It has a stop control at the intersection, while 8th Avenue has the right of way. "STOP" has been stenciled into the roadway on A Street, while 8th Avenue has "SLOW" stencils.

High visibility crosswalks extend across 8th Avenue, while standard crosswalks are painted across A Street. All corners have curb ramps, but they are not ADA-compliant (Figure 44).

Residents stated that this intersection sometimes has flooding issues. Additionally, illegal parking near the corners can restrict visibility, especially for drivers on A Street who must look for a gap in traffic.

Recommendations:

- Install curb extensions on all four corners to prevent illegal parking and increase visibility (Figure 45).
 - Consider green infrastructure to address local flooding.
- Upgrade curb ramps to be ADA-compliant.
- Conduct a traffic study to determine feasibility of four-way stop control.

8th Avenue and B Street

The intersection of 8th Avenue and B Street is very similar to the previous one. B Street is a 30-foot-wide one-way roadway running south. However, this intersection is an all-way stop (Figure 46). High visibility crosswalks extend across 8th Avenue, while standard crosswalks are painted across B Street. All corners have curb ramps, but they are not ADA-compliant. Large exposed drains present a hazard at this intersection (Figure 47). Belmar is looking to address this problem in a street reconstruction project.

Recommendations:

- Install curb extensions on all four corners to prevent illegal parking and increase visibility.
 - Consider green infrastructure.
- Upgrade curb ramps to be ADA-compliant.



Figure 43. Looking south to A Street.



Figure 44. Non-compliant curb ramps.

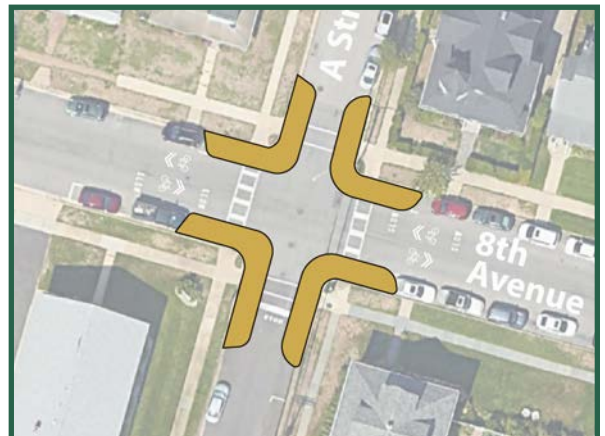


Figure 45. Potential curb extension.



Figure 46. Looking north to B Street.



Figure 47. Exposed drain pipe at B Street.

8th Avenue, South Lake Drive and C Street

Both South Lake Drive and C Street terminate at 8th Avenue with a stop control. South Lake Drive is a bidirectional roadway that runs north from 8th Avenue and connects to 7th Avenue. C Street is a one-way road that runs north. Silver Lake Park and Jane Magovern's Playground are located north of the intersection with C Street.

There is a marked crosswalk across South Lake Drive but not across 8th Avenue at that intersection. The placement of driveways on the south side of 8th Avenue makes it challenging to add a crosswalk with compliant curb ramps at that location (Figure 48).

The intersection with C Street has high-visibility crosswalks in all directions. There are curb ramps, but they are not ADA-compliant (Figure 49). Google Streetview shows that an in-road "stop for pedestrians" sign has been placed in this intersection in the past, but it was not there during the audit.

Additional street lighting starts at South Lake Drive and continues to North Lake Drive and around the park (Figure 50). Residents reported that many of these lights are not working, but the audit team was unable to verify this.

Residents noted that drivers appear to be going fastest in this section. That may be because 8th Avenue does not have stop control between D Street and B Street, a distance of 1,100 feet. Additionally, the wide-open space created by the park can make drivers feel like they are going slower than their actual speed. Speeding in this location is especially hazardous due to the proximity to the playground.

Recommendations (see Figure 52):

- Upgrade curb ramps to be ADA-compliant.
- Stripe high visibility crosswalk across S Lake Dr.
- Install curb extension on the northeast corner of the S Lake Drive intersection.
- Install curb extensions at the C Street intersection.
 - Consider green infrastructure.
- Add advance warning signage for crosswalks at C Street.
- Add Rectangular Rapid Flashing Beacons (RRFB) at crosswalks at C Street (Figure 51).
- Upgrade visibility of C Street intersection by using art mural or textured pavement.
 - Investigate converting to a raised intersection to address speeding on this section.
- Repair lighting or replace with shielded LED lighting.
- Considering widening the sidewalk on the perimeter of the park to function as a shared-use path to the playground.

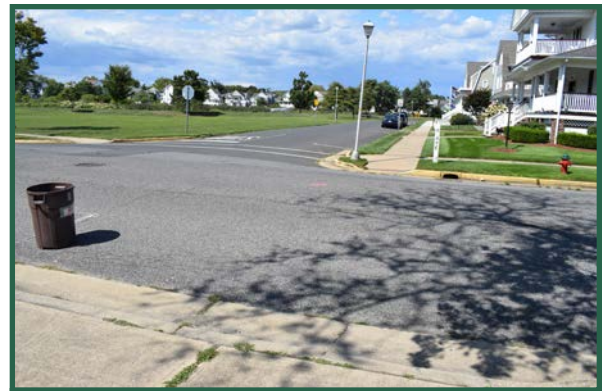


Figure 48. Looking north across 8th Avenue to S Lake Dr.



Figure 49. Mid-block opening in the frontage road.



Figure 50. Additional lighting around park.

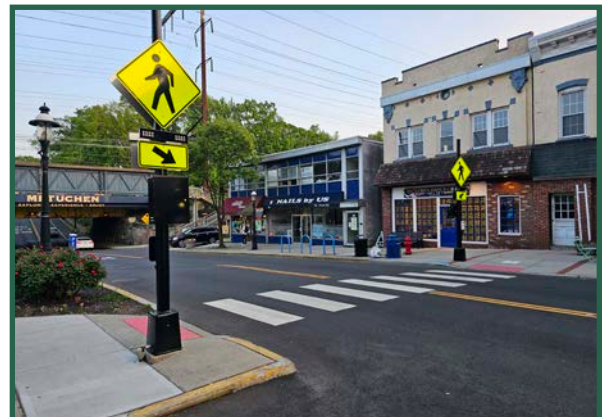


Figure 51. RRFB at Crosswalk.

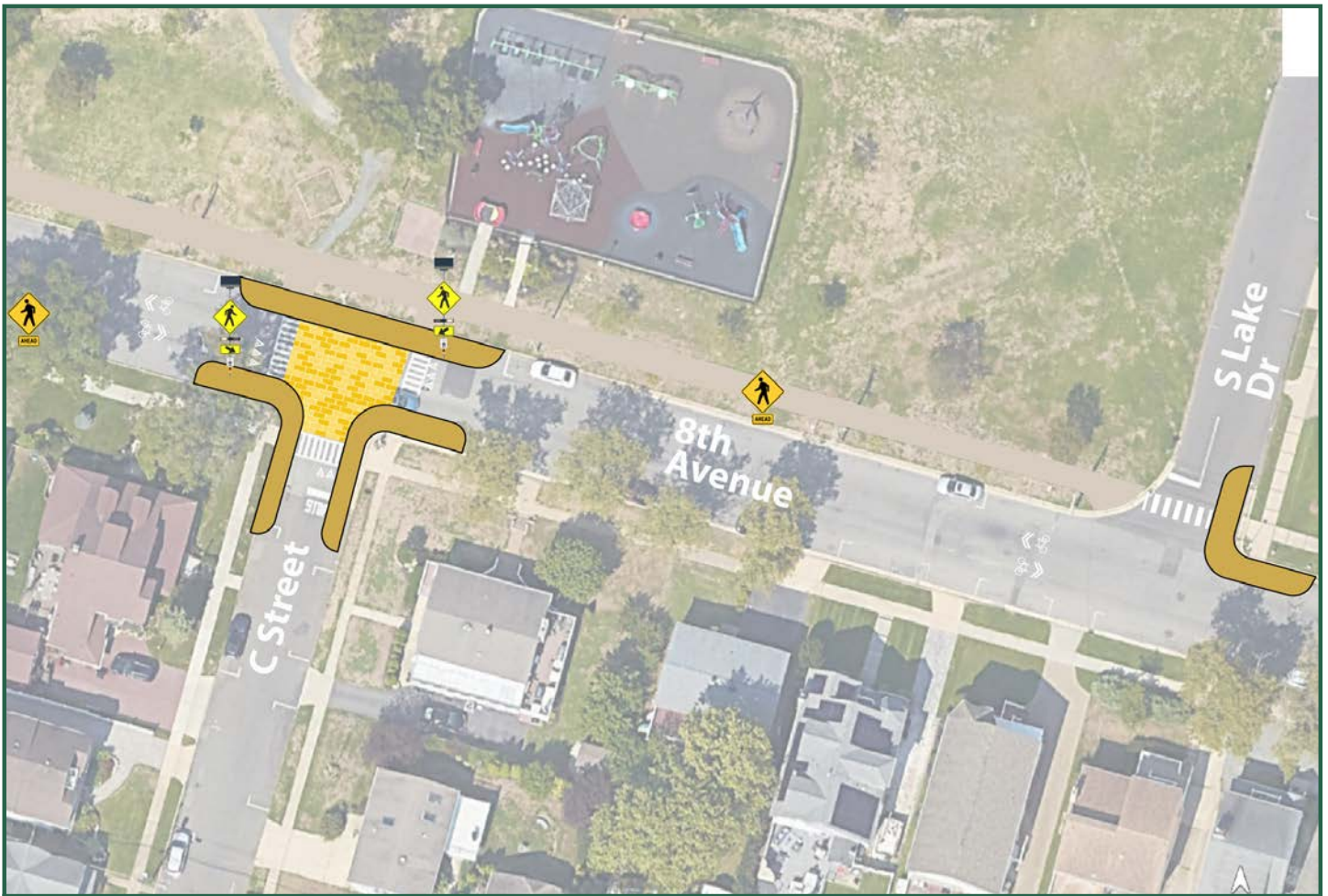


Figure 52. Potential improvements to eastern end of corridor.

8th Avenue, North Lake Drive and D Street

The western end of the corridor is located at a complex intersection made up of 8th Avenue, North Lake Drive, D Street, and a connector called South Lake Drive. These roadways meet at an oval, which has characteristics of a roundabout but is mostly stop-controlled. That is, all roadways have a stop sign to enter the oval except for the westbound direction of 8th Avenue (Figure 53). Within the oval, one leg has a stop control (Figure 54). Stop signs are supplemented with pavement stencils.

Although the oval creates a horizontal deflection to help lower traffic speeds and there are multiple stop signs, there have been a number of collisions at this intersection, possibly due to confusion about who has the right of way.

High-visibility crosswalks are marked at all legs of the intersection, although none are marked to access the center of the oval (Figure 55). As with the rest of the corridor, curb ramps exist at all crosswalks but no longer meet ADA standards. The oval occupies 5,000 square feet of space but only contains grass. Residents noted that the expanse of grass attracts geese.

Lighting appears to be especially poor at this intersection, with just one overhead light observed at the northwestern corner.

Recommendations:

- Investigate adding a stop sign where westbound 8th Avenue traffic enters the oval to add consistency to the traffic control at the intersection.
- Add supplemental plaques to stop signs noting that "traffic from the left does not stop" (W4-4aP) or "all way" (R1-3P) where appropriate.
- Consider activating the center of the oval for community use, such as through art, a gazebo, or seating. Crosswalks, signage, and other traffic calming treatments would be required to provide safe pedestrian access through this complex intersection.
 - Alternatively, consider adding trees and green infrastructure.
- Add lighting to the intersection. Four existing utility poles can support overhead lighting. However, dedicated light installations can be better focused to maximize visibility at conflict points while reducing unneeded light on neighboring properties.



Figure 53. Looking westbound on 8th Avenue.



Figure 54. Looking south from N Lake Drive.

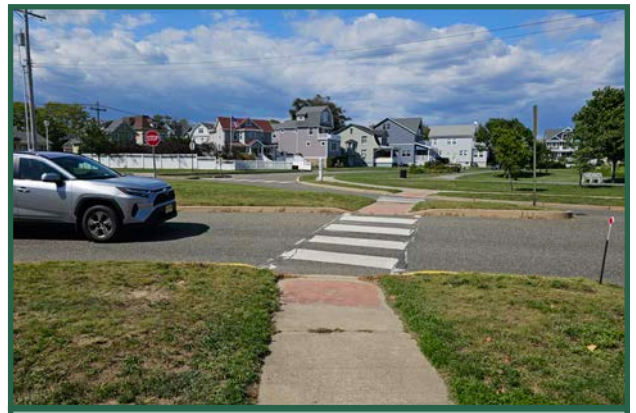


Figure 55. Looking north.



Figure 56. Looking east on 8th Avenue.

Additional Recommendations

I. Adopt a Complete Streets Policy or Ordinance

Adopting a Complete Streets policy or ordinance is an important first step toward implementing Complete Streets, as it defines the meaning of Complete Streets, establishes goals, and lays out the ways in which the municipality will accomplish the goals. Adopting a Complete Streets policy represents a commitment by a municipality to apply Complete Streets principles and goals to all transportation decisions.

Having a Complete Streets policy earns a municipality extra consideration on certain state grant applications. Municipalities that are seeking Sustainable Jersey certification earn points for adopting and instituting a policy. NJDOT offers a guide to policy development and a separate guide on how to create an implementation plan. These resources are among those available at <http://njbikeped.org/complete-streets-resources/>. NJDOT also offers a model policy guide, which should be used as a template for a new municipal policy (https://njbikeped.org/wp-content/uploads/2022/08/CS_Model_Policy_2020-R.pdf). A policy can be strengthened by enacting it as a municipal ordinance. The guide also provides example text for doing so.

2. Provide and Maintain High-Quality Pedestrian Infrastructure

The neighborhood surrounding the study corridor is well suited for walking, thanks to the interconnected nature of its streets and proximity to the beach, downtown commercial district, and nearby train station. However, unmaintained or narrow sidewalks can make walking a challenge. While most sidewalks were observed to be in good condition, the Borough should work with property owners to ensure that sidewalks in poor condition are rebuilt to provide a continuous pedestrian route (Figure 57). Belmar should consider updating site improvement standards to require 6-foot sidewalks during development or reconstruction to better allow pedestrians the ability to walk side-by-side.



Figure 57. Cracked sidewalk.

3. Add and Maintain Street Trees

Street trees improve pedestrian comfort by providing shade and creating a buffer between moving vehicles and the sidewalk. In addition, they provide aesthetic and air quality benefits and help to absorb stormwater.

The Borough, working through the Shade Tree Commission and in partnership with property owners, should proactively seek to maintain existing street trees, add new street trees where they are lengthy gaps, and replace street trees that are removed due to disease or storm damage (Figure 58). Care must be taken when selecting tree species appropriate for the soil and climate, which may include periodic inundation with salt water during flood events. Additionally, reducing impervious surfaces and adding green infrastructure, such as the use of stormwater tree pits or rain gardens, can help mitigate localized flooding.



Figure 58. Section without trees, approaching boardwalk.

4. Quick-build implementation

Curb extensions were recommended throughout the corridor. In the short term, this can be done as a demonstration project by using low-cost materials (Figure 59). As funding allows, the Borough can upgrade the project to a permanent installation, which can include the addition of green infrastructure.

5 Lighting

A lighting study was not conducted as part of this project, and the study area was not visited at night. However, the project team did notice that streetlights are placed far apart, and many intersections lack well-positioned overhead lights. Crashes occurring at night are significantly more likely to result in fatalities than those in daylight conditions. Lighting increases the visibility of all roadway users and is a way to systematically improve safety. As such, lighting is an FHWA Proven Safety Countermeasure². In addition, lighting of pedestrian spaces can encourage nighttime use by alleviating personal safety concerns.

Lighting can also have negative environmental and community impacts, such as glare, light pollution, disturbance of adjacent properties, undesirable aesthetic impacts, and disruption of wildlife. Therefore, the amount, type, and placement of any additional lighting should be carefully considered to provide a safety benefit while also minimizing these impacts (Figure 60). The Borough should consider providing additional lighting in strategic locations, especially at intersections. Between Ocean Avenue and B Street, the utility poles are spread out, which means any new lighting will require new supports. Between B Street and D Street, utility poles are more frequent. Existing utility poles by the playground provide an opportunity to add lighting to enable evening use of the playground if desired.

6. Add Bicycle Facilities

Eighth Avenue is not wide enough to accommodate bicycle lanes without removing parking, which is well used in this area (Figure 61). While this should be considered, another option is to implement shared-lane markings (sharrows) and Bicycles May Use Full Lane (R4-11) signs to the length of 8th Avenue. While these additions do not convey additional rights to bicyclists, they serve to remind motorists to expect bicyclists and to share the roadway. This can be especially helpful in municipalities like Belmar, which experience high tourist traffic, including drivers who are not used to sharing the road with many bicyclists.

7. Parking

Residents stated that in some locations, cars parked on the street extended past the parking lines and blocked or limited access into driveways. Belmar could restripe some of the parking limits to help prevent this from happening by clarifying locations that can only fit one car. For example, the parking area in front of 111 8th Avenue is 34.5 feet long, and just 33.6 feet long in front of 110 8th Avenue. While these spaces appear long enough to fit two cars, the average car is 18 feet long, requiring 36 feet for two cars.



Figure 59. Quick-build curb extension.



Figure 60. Lighting illustration by DarkSky.



Figure 61. Bicyclists sharing the roadway.

² https://safety.fhwa.dot.gov/roadway_dept/night_visib/docs/Pedestrian_Lighting_Primer_Final.pdf

Conclusion

Eighth Avenue is an attractive residential roadway that also serves as an important connection between the beach and the downtown district. Local officials interested in improving their streets applied to the CSTA Program to audit current conditions and develop recommendations for potential improvements. As part of this assistance, local stakeholders received an educational workshop on Complete Streets and participated in a walkable community workshop.

This report identifies several recommendations that could improve pedestrian and bicycle access to destinations and discourage unsafe driving behaviors using a range of designs consistent with the New Jersey Complete Streets Design Guide. High-visibility crosswalks, curb extensions, green infrastructure, lighting, and modifications to striping could improve the walkability and bikeability of the area while encouraging more people to walk and bike for transportation.

Some of the recommendations relate to policies and maintenance, such as adopting a Complete Streets policy and improving the no-parking road markings and signage. Others can be implemented during periodic maintenance, such as by upgrading crosswalk striping and ADA curb ramps during routine roadway resurfacing. More intensive and costly roadway changes, such as curb extensions, stormwater tree pits, and green infrastructure, may be best suited for competitive funding grants. A list of funding sources that can be used by municipalities to implement pedestrian and bicycle improvements is included as Appendix C.

Demonstration projects can be deployed to test the suitability of various recommendations for changes along the corridor. By making the changes quickly and with low-cost materials, the Borough can receive meaningful feedback from residents based on their real-world experience. If the improvements are ineffective or have unintended consequences, they can be easily removed.

While the recommendations in this plan were limited to 8th Avenue, Belmar should identify parallel roadways that can receive similar treatments to improve safety throughout the entire borough.



Figure 62. Belmar Boardwalk.



Appendix

A. Workshop Flyers

B. Workshop Agenda and Field Audit Form

C. Potential Funding Resources

D. Design Resources

A. Workshop Flyers

WALKABLE COMMUNITY WORKSHOP

Thursday, August 22, 2024, 1:00 pm to 4:00 pm
Taylor Pavilion, 500 Ocean Ave N, Belmar, NJ 07719



Join us to address walkability and bikeability on 8th Avenue, between Ocean Avenue and D Street!

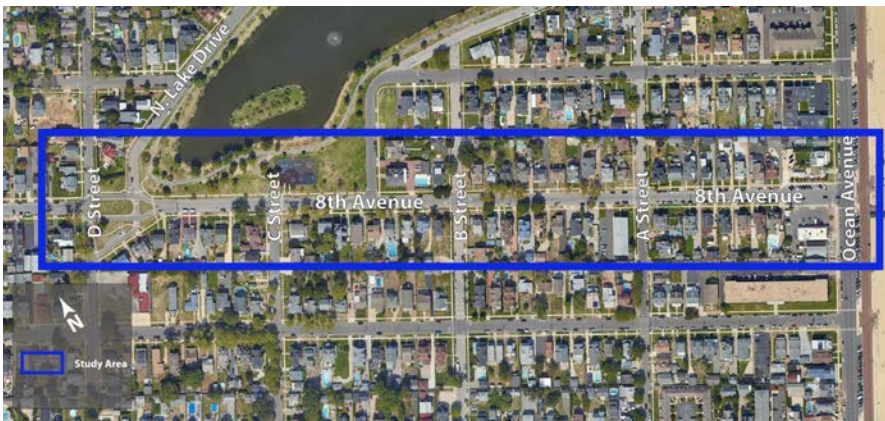
To register for this workshop, visit:

<https://go.rutgers.edu/belmar>

Belmar wants your input on how to improve 8th Avenue!

A Walkability Workshop engages Borough employees, residents, and businesses in a discussion about walking and biking. After learning about what to look for, workshop participants will walk a half-mile corridor, assessing existing streets and sidewalks and identifying issues to overcome to ensure safer and more welcoming conditions for pedestrians and bicyclists. After the workshop, a report will be prepared with recommendations on improvements to address key locations and issues identified in the workshop.

This effort is part of the Complete Streets Technical Assistance Program, a collaboration between Sustainable Jersey, the Voorhees Transportation Center at Rutgers University, and the North Jersey Transportation Planning Authority (NJTPA). Funded by the NJTPA, the program is designed to support municipal government efforts to advance Complete Streets initiatives.



WORKSHOP AGENDA

1:00 - 2:00 pm
Classroom Training

2:00- 3:00 pm
Walking Audit

3:30- 4:00 pm
Report Back and Next Steps



TALLER PRÁCTICO COMUNIDADES TRANSITABLES

Jueves, agosto 22, 2024, 1:00 pm to 4:00 pm
Taylor Pavilion, 500 Ocean Ave N, Belmar, NJ 07719



Únase a nosotros para abordar la accesibilidad
para peatones y ciclistas en la 8va Avenida,
entre Ocean Avenue y D Street

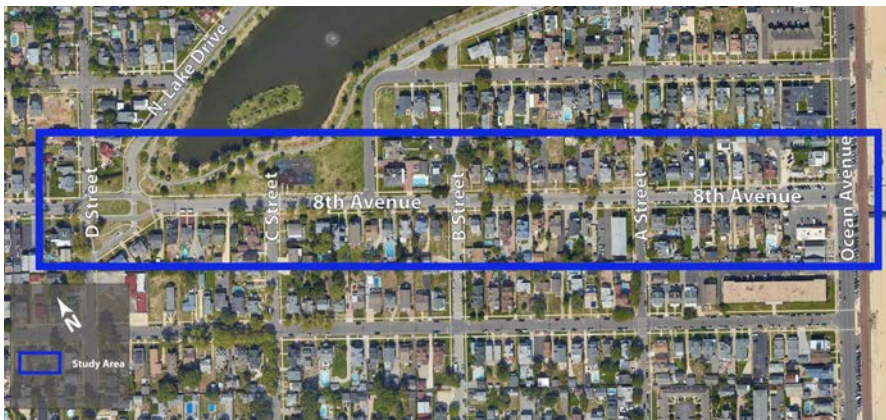
Para registrarse a este taller, visite:

<https://go.rutgers.edu/belmar>

¡Belmar quiere tu opinión sobre cómo mejorar la 8va Avenida!

Este taller práctico involucra a empleados, residentes y empresas del municipio en temas relacionados con caminar y andar en bicicleta. Después de aprender qué buscar, los participantes del taller caminarán por un corredor de media milla, evaluando las calles y aceras existentes e identificando problemas a superar para garantizar condiciones más seguras y acogedoras para peatones y ciclistas. Después del taller, se preparará un informe con las mejoras recomendadas para abordar los problemas identificados en el taller.

Este esfuerzo es parte del Programa de Asistencia Técnica de Calles Completas, una colaboración entre Sustainable Jersey, el Centro de Transporte Voorhees en la Universidad de Rutgers, y la Autoridad de Planificación del Transporte del Norte de Jersey (NJTPA). Financiado por NJTPA, el programa está diseñado para apoyar los esfuerzos del gobierno municipal para promover iniciativas de calles completas..



AGENDA DEL TALLER

1:00 - 2:00 pm

Presentación

2:00- 3:00 pm

Auditoría a pie

3:30- 4:00 pm

Informe y próximos pasos



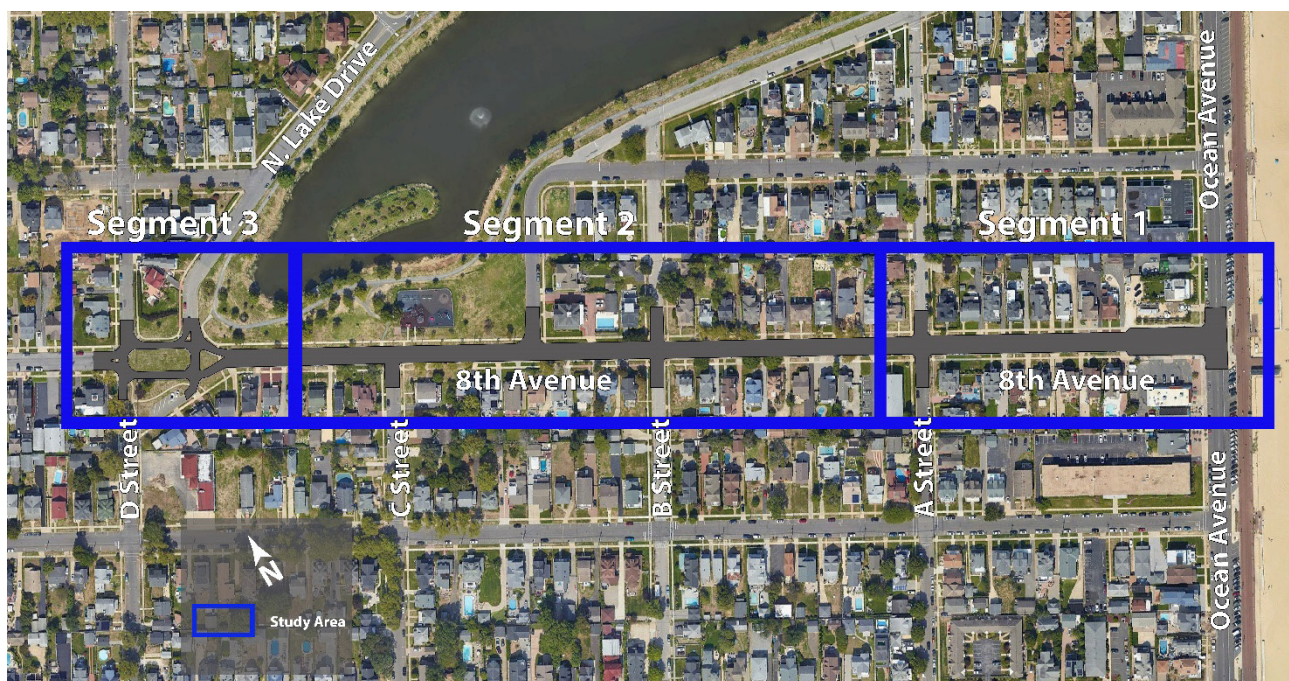
B. Workshop Agenda and Field Audit Form



8th Avenue Walking Audit

Belmar, NJ

August 2024



This effort is part of the Complete Streets Technical Assistance Program, a collaboration between Sustainable Jersey, the Voorhees Transportation Center at Rutgers University, and the North Jersey Transportation Planning Authority (NJTPA). Funded by the NJTPA, the program is designed to support municipal government efforts to advance Complete Streets initiatives

WALKING EXPERIENCE

Street Segment: 8th Avenue between Ocean Avenue and A Street

Please indicate how you feel about the following questions:

1 = Disagree

2 = Somewhat Disagree

3 = Somewhat Agree

4 = Agree

	1	2	3	4
1. Now and historically, motorists are respectful of my presence (yield to me at intersections, drive at a safe speed, look before turning or exiting a driveway, etc.). Notes:				
2. I feel visible and safe from crime while walking along this segment. Notes:				
3. The street is friendly and inclusive to people walking of all ages and physical abilities; sidewalks are well-maintained, smooth, and wide enough to walk comfortably alongside another person. Notes:				
4. Intersection design elements (ADA accessible curb ramps, pedestrian signals, well-marked crosswalks, curb extensions, etc.) are all present and make me feel safe while approaching and crossing the intersection. Notes:				
5. The street includes consistent tree coverage, attractive landscaping, interesting/important destinations, and a consistent and interesting mix of buildings fronts (porches, windows, stoops, etc.) to invite walking. Notes:				
6. Amenities for a wide number of street users are available (bike racks, public seating, etc.) and are comfortable to use. Notes:				

WALKING EXPERIENCE

Street Segment: 8th Avenue between A Street and C Street

Please indicate how you feel about the following questions:

1 = Disagree

2 = Somewhat Disagree

3 = Somewhat Agree

4 = Agree

	1	2	3	4
1. Now and historically, motorists are respectful of my presence (yield to me at intersections, drive at a safe speed, look before turning or exiting a driveway, etc.). Notes:				
2. I feel visible and safe from crime while walking along this segment. Notes:				
3. The street is friendly and inclusive to people walking of all ages and physical abilities; sidewalks are well-maintained, smooth, and wide enough to walk comfortably alongside another person. Notes:				
4. Intersection design elements (ADA accessible curb ramps, pedestrian signals, well-marked crosswalks, curb extensions, etc.) are all present and make me feel safe while approaching and crossing the intersection. Notes:				
5. The street includes consistent tree coverage, attractive landscaping, interesting/important destinations, and a consistent and interesting mix of buildings fronts (porches, windows, stoops, etc.) to invite walking. Notes:				
6. Amenities for a wide number of street users are available (bike racks, public seating, etc.) and are comfortable to use. Notes:				

WALKING EXPERIENCE

Street Segment: 8th Avenue between C Street and D Street

Please indicate how you feel about the following questions:

1 = Disagree

2 = Somewhat Disagree

3 = Somewhat Agree

4 = Agree

	1	2	3	4
1. Now and historically, motorists are respectful of my presence (yield to me at intersections, drive at a safe speed, look before turning or exiting a driveway, etc.). Notes:				
2. I feel visible and safe from crime while walking along this segment. Notes:				
3. The street is friendly and inclusive to people walking of all ages and physical abilities; sidewalks are well-maintained, smooth, and wide enough to walk comfortably alongside another person. Notes:				
4. Intersection design elements (ADA accessible curb ramps, pedestrian signals, well-marked crosswalks, curb extensions, etc.) are all present and make me feel safe while approaching and crossing the intersection. Notes:				
5. The street includes consistent tree coverage, attractive landscaping, interesting/important destinations, and a consistent and interesting mix of buildings fronts (porches, windows, stoops, etc.) to invite walking. Notes:				
6. Amenities for a wide number of street users are available (bike racks, public seating, etc.) and are comfortable to use. Notes:				

C. Potential Funding Resources

This appendix provides a list of funding resources available to New Jersey communities for the advancement of Complete Streets initiatives, including both construction grants and non-infrastructure programs to increase walking and bicycling. Many of the grants and programs are highly competitive; potential applicants should review the grant application requirements carefully before applying. The most successful applications tell the story of the populations most in need of the proposed improvements, especially traditionally underserved or vulnerable populations. Applicants should use compelling pictures, data, and prior plans and proposals that indicate how and why the project was selected.

Grant programs can involve a significant administrative burden and overhead costs. Before pursuing a competitive grant, counties and municipalities should consider whether a Complete Streets project can be implemented partially or wholly through the jurisdiction's capital budget. In addition, some Complete Streets improvements can be integrated into routine maintenance projects or can be constructed by private property owners as part of development and redevelopment.

New Jersey Department of Transportation

The Division of Local Aid and Economic Development at the New Jersey Department of Transportation (NJDOT) administers funds to local public agencies such as county and municipal governments for construction projects to improve the state's transportation system. Grant support and technical assistance is provided through the Local Aid Resource Center's Help Desk (<https://njdotlocalaidrc.com/>). Below are some NJDOT construction grant and planning support programs that be used for Complete Streets.

State Aid Grant Programs

Municipal Aid: This program assists municipalities in funding local transportation projects, and all New Jersey municipalities are eligible to apply. NJDOT encourages applications for pedestrian safety improvements, bikeways, and streetscapes. Additionally, a common strategy to implement on-street bike lanes is to include bike lane striping within repaving projects that are funded through this program. Learn more here: <https://njdotlocalaidrc.com/state-funded-programs/municipal-aid>

County Aid: County Aid funds are available for the improvement of public roads and bridges under county jurisdiction. Public transportation and other transportation projects are also included. Learn more here: <https://njdotlocalaidrc.com/state-funded-programs/county-aid>

Bikeways: This program provides funds to counties and municipalities for bikeway construction to promote bicycling as an alternate mode of transportation in New Jersey. Learn more here: <https://njdotlocalaidrc.com/state-funded-programs/bikeways>

Safe Streets to Transit: This program encourages counties and municipalities to construct safe and accessible pedestrian linkages to all types of transit facilities and stations, to promote increased usage of transit by all segments of the population and decrease private vehicle use. Learn more here: <https://njdotlocalaidrc.com/state-funded-programs/safe-streets-to-transit>

Transit Village: This program awards grants for transportation projects that enhance walking, biking, and/or transit ridership within a ½ mile of the transit facility. Municipalities must already be designated as a Transit Village by the NJDOT Commissioner and the inter-agency Transit Village Task Force to be eligible to apply. Learn more here: <https://njdotlocalaidrc.com/state-funded-programs/transit-village>

Bicycle and Pedestrian Planning Assistance (BPPA): NJDOT offers local planning assistance through the Bureau of Safety, Bicycle, and Pedestrian Programs. Under the BPPA program, on-call consultants are paired with communities to complete a variety of projects, including bicycle and pedestrian plans, safety assessments, trail feasibility studies, and improvement plans for traffic calming projects. Priority is given to traditionally underserved communities and those with a documented safety concern. For more information, please contact the NJDOT Bicycle and Pedestrian Coordinator at bikeped@dot.nj.gov.

Federal Aid Grant Programs

Transportation Alternatives Set-Aside: This program provides federal Surface Transportation Block Grant federal funds for community-based “non-traditional” transportation projects designed to strengthen the cultural, aesthetic, and environmental aspects of the nation’s intermodal system, including design and construction of on-road and off-road trail facilities for pedestrians, bicyclists, and other non-motorized forms of transportation. Municipalities can receive bonus points on their application if they have an adopted Complete Street Policy, are a Targeted Urban Municipality, or are a designated Transit Village. Learn more here: <https://njdotlocalaidrc.com/federally-funded-programs/transportation-alternatives>

Safe Routes to School: The Safe Routes to School Program is administered by the NJDOT, and New Jersey’s three metropolitan planning organizations. The program provides federal funds for infrastructure projects that enable and encourage children in grades K-12, including those with disabilities, to safely walk and bicycle to school. Municipalities, in partnership with school districts, can receive bonus points on the grant if they have School Travel Plans, a Complete Streets Policy, or a Transit Village designation. Learn more here: <https://njdotlocalaidrc.com/federally-funded-programs/safe-routes-to-school>

Recreational Trails Program: The Recreational Trails Grant Program administered by the NJDEP Green Acres Program provides federal funds for developing new trails and maintaining and restoring existing trails and trail facilities including trails for non-motorized, multi-use (including land and water) and motorized purposes. As of spring 2025, the program is currently on hold as it undergoes program updates. Learn more and get notified of future grant opportunities here: <https://dep.nj.gov/greenacres/trails-program-home/nj-trails-program-grants/>

USDOT-Administered Federal Aid Grant Programs

While NJDOT and New Jersey’s three metropolitan planning organizations administer many federal aid programs, including Transportation Alternatives Set-Aside and Safe Routes to School, the USDOT administers some grant programs directly. The Infrastructure Investment and Jobs Act of 2021, and the Inflation Reduction Act of 2022 established funding programs that can be helpful for county and municipal governments looking to fund Complete Streets and other safety and active transportation projects. Federal programs generally require a 20 percent local match on a cost-reimbursement basis, however, some programs have reduced the local match requirements for some or all applicants. Eligible entities apply for grants directly to the United States Department of Transportation through the <http://grants.gov> online portal.

USDOT Discretionary Grants Dashboard: The USDOT Discretionary Grants Dashboard provides communities with an overview of discretionary grant opportunities that can help meet their transportation infrastructure needs. Designed with all communities in mind, the Dashboard identifies grant programs with rural and Tribal set-asides or match waivers available. The Dashboard also includes Federal grant programs outside of USDOT that may be of particular interest to rural communities. Access the Dashboard here: <https://www.transportation.gov/grants/dashboard/>

Safe Streets and Roads for All Program (SS4A): This program funds planning and implementation of projects and strategies which share a goal of eliminating roadway deaths and serious injuries. Many Complete Streets-related measures are eligible. Funding can be used to produce a comprehensive safety action plan, create demonstration projects, and implement permanent safety improvements. Applicants must have an eligible comprehensive safety action plan (referred to as an “Action Plan”) to apply for an implementation grant, however, as of spring 2025 all counties in the NJTPA region have created or are in the process of creating these plans. Congress has appropriated \$5 billion to the program through fiscal year 2026, and all grants require a 20 percent local match. The SS4A program supports the National Roadway Safety Strategy and the USDOT’s goal of zero deaths and serious injuries on our nation’s roadways. Counties, municipalities, and other non-State government entities are eligible to apply. Applications for the 2023 fiscal year are due on July 10, 2023. More information is available here: <https://www.transportation.gov/grants/SS4A>

Thriving Communities Program (TCP): The Thriving Communities Program provides technical assistance to governments and transit agencies. The program focuses on communities that have suffered historic disinvestment and lack the resources and capacity to successfully engage, develop, design, and deliver infrastructure projects. The program provides planning, technical assistance, and capacity building to better navigate federal requirements, identify financing and funding opportunities, and grow long-term capacity to leverage transportation investments to achieve broader economic and community development goals. More information is available here: <https://www.transportation.gov/grants/thriving-communities>

Health and Environment Funding

Sustainable Jersey: The Sustainable Jersey Small Grants program provides capacity building awards to municipalities to support local green teams and their programs and is not project specific. Learn more about grant opportunities here: <https://www.sustainablejersey.com/grants/>

Sustainable Jersey for Schools: Sustainable Jersey for Schools grants are intended to help school districts and schools make progress toward Sustainable Jersey for Schools certification. Learn more here: <http://www.sustainablejerseyschools.com/>

Funding from Other Sources

New Jersey Transportation Infrastructure Bank (NJTIB): The NJTIB is an independent State Financing Authority responsible for providing and administering low-interest loans to qualified municipalities, counties, and regional authorities in New Jersey. The unique partnership with NJDOT was established with the mission of reducing the cost of financing transportation projects in the state. Learn more here: <https://www.njib.gov/njtib>

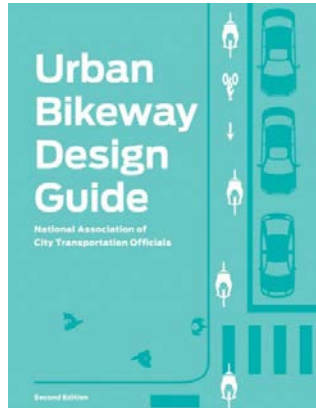
County and Municipal Open Space Trust Funds: All New Jersey counties and many New Jersey municipalities have an Open Space Trust Fund, which is a dedicated program supporting open space land acquisition. The trust funds are established by ballot measure. Depending on the fund parameters, other development projects can be eligible including trails, historical preservation, and farmland protection. For a database of ballot measures descriptions with amount of Open Space Trust Funds, visit the Trust for Public Lands LandVote Database: <https://tpl.quickbase.com/db/bbqna2qct?a=dbpage&pageID=8>

D. Design Resources

NACTO Guides



[Urban Street Design Guide](#)



[Urban Bikeway Design Guide](#)



[Transit Street Design Guide](#)



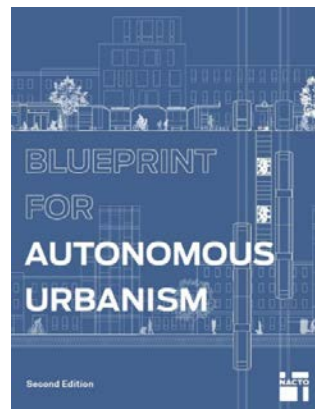
[Urban Street Stormwater Guide](#)



[Global Street Design Guide](#)



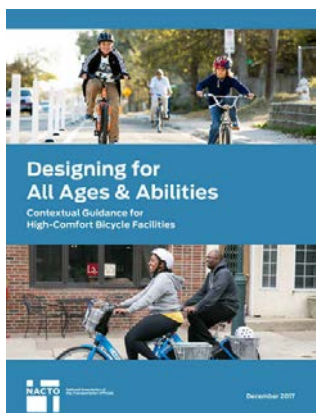
[Designing Streets for Kids](#)



[Blueprint for Autonomous Urbanism](#)



[Bike Share Station Siting Guide](#)



[Designing for All Ages & Abilities](#)



[Don't Give Up at the Intersection](#)

NJDOT Guides



[Complete & Green Streets for All: Model Policy & Guide](#)



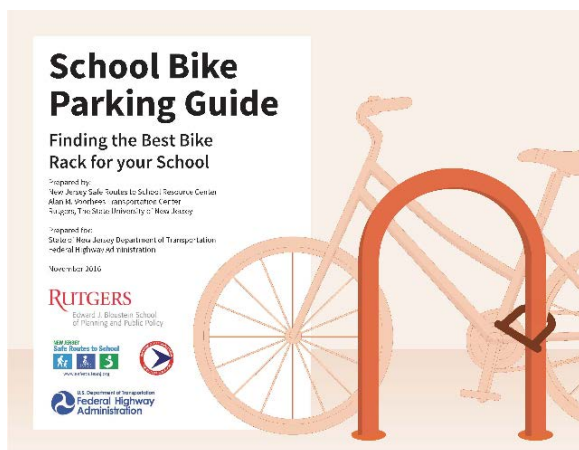
[2017 State of New Jersey Complete Streets Design Guide](#)



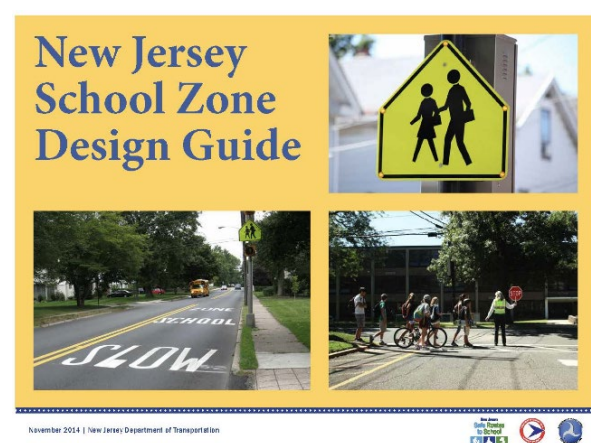
[A Guide to Creating a Complete Streets Implementation Plan](#)



[A Guide to Policy Development](#)

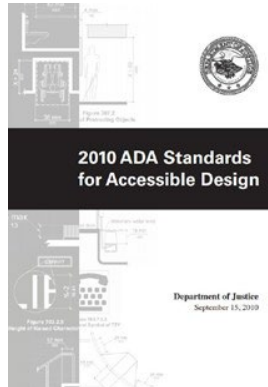


[School Bicycle Parking Guide](#)



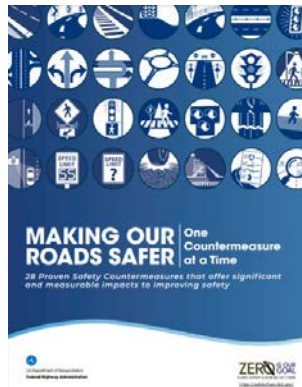
[New Jersey School Zone Design Guide](#)

ADA Guidelines



[ADA Standards for Accessible Design](#)

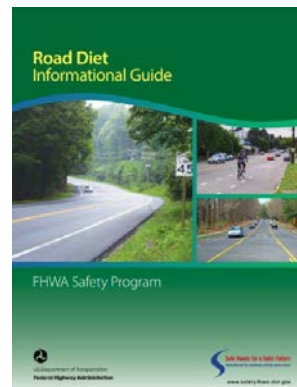
FHWA Guides



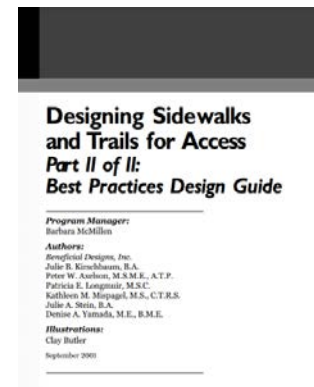
[Making Our Roads Safer: One Countermeasure at a Time](#)



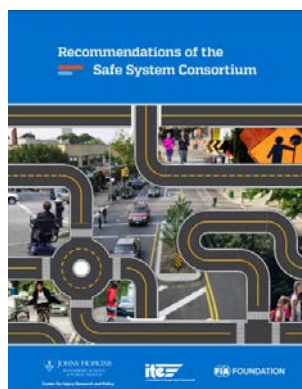
[Separated Bike Lane Planning and Design Guide](#)



[Road Diet Informational Guide](#)



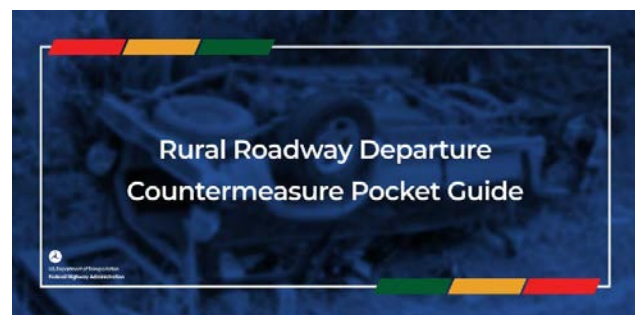
[Designing Sidewalks and Trails for Access Part II of II: Best Practices Design Guide](#)



[Recommendations of the Safe System Consortium](#)



[A Safe System-Based Framework and Analytical Methodology for Assessing Intersections](#)



[Rural Roadway Departure Countermeasure Pocket Guide](#)

Tactical Urbanism 1

Tactical Urbanism 2

Tactical Urbanism 3

Tactical Urbanism 4

