Central Avenue Walkable Community Workshop

Seaside Heights Borough, Ocean County, NJ

2023

NJTPA
NORTH JERSEY TRANSPORTATION PLANNING AUTHORITY

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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.

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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**

Seaside Heights Borough, New Jersey, participated in the 2022-2023 North Jersey Transportation Planning Authority (NJTPA) Complete Streets Technical Assistance (CSTA) Program (Figure 1). This report identifies several recommendations to promote walking as a means of travel and improve the pedestrian experience along a section of Central Avenue in Seaside Heights. This report calls for: adopting a Complete Streets policy or ordinance; implementing a road diet; providing and maintaining high-quality pedestrian infrastructure; adding lighting; and addressing deficiencies in signage and striping. The plan also highlights the possibility of completely reimagining the corridor by constructing a new central green. Implementing the recommendations will require detailed engineering study, funding, and the support of local, county, and state officials.

The recommendations in this report were developed through a Walkable Community Workshop (WCW) that was held on August 23, 2022, which is a collaborative effort with municipal employees and Borough stakeholders. The Central Avenue corridor under consideration is a county-managed roadway, which bisects Seaside Heights from north to south. The corridor continues north into Toms River and south into Seaside Park. While the center of activity in Seaside Heights is the boardwalk, Central Avenue is fronted by a mixture of small businesses and residential properties. During the course of this project, the Borough used preliminary study recommendations to apply for a Transportation Alternatives Set-Aside grant.

The lessons learned by all participants during the workshop can be applied to other roadways in Seaside Heights. 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 1. Sign welcoming visitors to Seaside Heights, on Central Avenue.

Background

The North Jersey Transportation Planning Authority created the CSTA Program in 2018 to assist municipalities in advancing or implementing Complete Streets, a need identified by the Together North Jersey consortium. This report is part of the third round of the CSTA Program, in which seven 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.

Seaside Heights requested a Walkable Community Workshop on Central Avenue, a county roadway, which is a main vehicular thoroughfare that runs north-south through Seaside Heights and connects towns along the barrier island. Seaside Heights is a walkable community with 0.62 square miles of land full of recreational attractions, bars and restaurants, residences, and lodging. The Borough attracts large crowds during the summer months thanks to a popular boardwalk and beach. However, Central Avenue has been designed primarily to accommodate vehicles. The roadway is wide, with two travel lanes in each direction, parallel parking, and frontage roads with more on-street parking. Borough officials also stated in their application that the route does not have bicycle lanes, the pedestrian accommodations are lacking, and many of the aesthetic features are in need of replacement. Prior to conducting the workshop, the CSTA project team met with Seaside Heights officials to discuss the study area and gain a better understanding of the corridor and the need for a walking audit.

Municipal employees and stakeholders, including area residents, participated in a WCW on August 23, 2022. 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 project team then walked the length of the study corridor with the participants, making note of existing conditions, observing driver and pedestrian behavior, and talking about future needs. As shown in Figure 2, the study corridor extended along Central Avenue, between Porter Avenue and Sheridan Avenue.

Figure 2. Study corridor map.

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 3). 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 new 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." This section of the BIL requires that states and MPOs use 2.5 percent of their planning and research funds for Complete Streets activities that will increase safe and accessible transportation options.

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 incorporate the needs of commuters by installing benches, shelters, lighting, and signs (Figure 3).

Figure 3. This Complete Street in New Brunswick, NJ, features a bicycle path, bus lane, and enhanced pedestrian crossing.

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 seniors, 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.

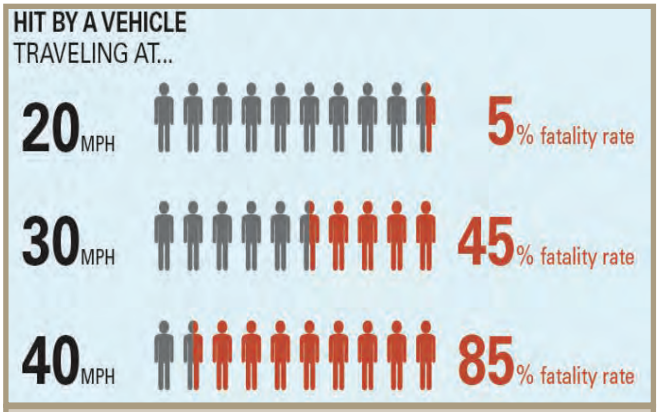


Figure 4. Graphic showing increased fatality rate as vehicle speeds increase. (USDOT)

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.

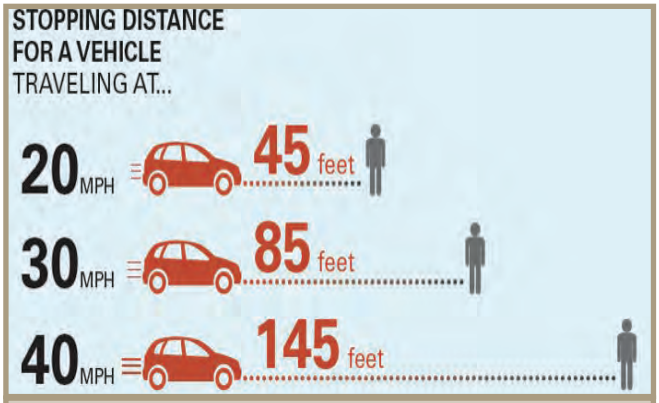


Figure 5. Graphic showing increased stopping distance as vehicle speeds increase. (USDOT)

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 6). 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 6. 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 7). 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 7. 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, ethnicity, ability, or other differences. 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 New Jersey and Seaside Heights

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 six 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 new 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, 174 municipalities have implemented their own policies (Figure 8).

Currently, neither Ocean County nor Seaside Heights have a Complete Streets policy.

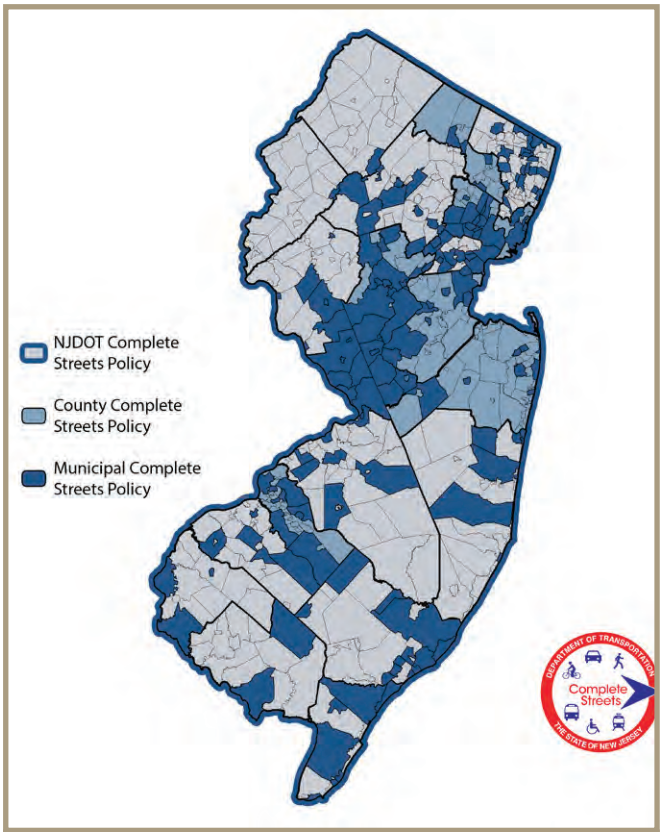


Figure 8. Complete Streets Policies in New Jersey, as of June 15, 2023. Visit https://njbikeped.org/nj-complete-streets-policy-compilation/ for a constantly updated list of policies.

Walking Audit Location and Assessment of Need

According to the 2020 US Census, Seaside Heights is home to approximately 2,917 residents within an area of 0.74 square miles. The median age is 39.5, and the estimated median household income is $57,083. The median home value is $286,700, which is less than the state median. The number of bicycle commuters in Seaside Heights has decreased from 4.8 percent in 2015 to zero percent in 2020, although that data is affected by the COVID-19 pandemic and does not include non-commute trips. Seventy-six percent of residents drive alone to work, while 3.5 percent walk to work. The population in Seaside Heights is majority white (74 percent). About 18 percent of the population aged five years and over speak Spanish at home, which is higher than the state average. Seaside Heights 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.

Central Avenue is a north-south corridor that runs through the center of the Borough (Figure 9). It has a mixture of residential and commercial properties but is not a typical downtown street. This is because most business activity is located along the boardwalk. Train service used to exist at Central Avenue and Webster Street, but today the Borough only sees limited year-round transit, with summer bus service to Newark and New York City. Seaside Heights has a community center located on the northwestern corner of the town. However, there is no central park or plaza. While the boardwalk provides an excellent environment to walk and gather, it is generally quiet outside of the summer months.

The Borough selected Central Avenue for a Walkable Community Workshop and walking audit because the current design is oriented almost entirely toward accommodating peak vehicle traffic volume, which is limited to only a few weekends of the year. While safety improvements can benefit summer visitors, there is an opportunity to re-orient the corridor as a safe and attractive space for year-round residents. Improving the pedestrian realm and creating a more attractive environment for pedestrians and bicyclists will help generate foot traffic for local businesses. Addressing safety concerns for bicyclists will help residents navigate their community.

Figure 9. Central Avenue Corridor Map. The number of crashes is shown to the left of the corridor but they represent crashes at the intersection.

Borough staff noted that the corridor contains basic pedestrian infrastructure elements such as sidewalks and painted crosswalks; however, the pedestrian and bicyclist experience along the corridor is inconsistent and somewhat unwelcoming due to many unmarked crosswalks and wide intersections. Uneven pavement, non-ADA-compliant intersection ramps, and driveway slopes create a safety hazard and accessibility issue for pedestrians along sidewalks. Additionally, the wide roadway can enable high speeds, and older streetscaping amenities, such as planters and poles for banners, have deteriorated.

Traffic Volumes, Speed, and Crash History

NJDOT has recorded traffic counts twice for the corridor. In late October 2018, NJDOT observed an annual average daily traffic (AADT) volume of just 1,632 on Central Avenue just north of Franklin Avenue. This reflects typical off-season traffic. On Wednesday, August 12, 2015, NJDOT recorded 2,769 vehicles. While this data comes from the peak visitor month, traffic volumes are higher on weekends. In both cases, these volumes are significantly lower than the 20,000 daily vehicles a four-lane roadway can accommodate. Parallel parking is available along the main roadway, with additional angled parking on the frontage roads.

The speed limit is 25 mph throughout the study corridor, but recent data on recorded traffic speed is not available. The New Jersey Complete Streets Design Guide states that any bicycle facility type can be installed on a 25-mph roadway with traffic volumes under 2,500. However, if summer volumes exceed 2,500, then shared-lane markings (sharrows) should not be used.

According to NJDOT crash data, over the five years from 2017-2021, there have been eight crashes involving a pedestrian and three involving a bicyclist in all of Seaside Heights. Of those crashes, three of the pedestrian collisions and one bicycle crash occurred on Central Avenue (Table 1). Figure 9 shows all crashes, including those only involving vehicles.

Table 1. Pedestrian and bicycle crashes in study area, 2017-2021. *Source - Safety Voyager*

Location	Date	Time	Crash Type	Ped./Cyclist Age	Ped./Cyclist Gender	Injury Severity	At Intersection	Lighting Condition
Central & Hamilton	6/20/2021	Unknown	Bicyclist	20	Male	Moderate Injury	Yes	Daylight
Central & Sheridan	7/20/2020	9:00 pm	Pedestrian	21	Male	Injury	No	Dark (street lights on)
Central & Grant	2/23/2019	11:40 am	Pedestrian	65	Male	Moderate Injury	Yes	Daylight
Central & Grant	8/29/2018	6:29 pm	Pedestrian	55	Male	Moderate Injury	Yes	Daylight

Workshop Methodology

Prior to conducting the workshop, the CSTA project team met virtually with Seaside Heights 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 23, 2022, included residents, Borough staff, representatives from the Seaside Heights Business Improvement District, the school district superintendent, Greater Mercer TMA, Ocean County Planning and Engineering staff, and the NJTPA.

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. 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 (Figure 9).

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 and each group walked the entire length of the corridor. The audit walk consisted of discussing issues, writing observations, and identifying the existing conditions observed by participants familiar with the area. 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.

Workshop Findings

This section highlights corridor-wide commonalities of the study area, including sidewalks, intersections, safety, and comfort. This is followed by a detailed description of conditions along the route.

Corridor Summary

Sidewalks

Sidewalks are present on both sides of the Avenue but are not in good condition, especially on the west side. Quality issues include uneven pavement, cracks, loose gravel, and objects obstructing the pedestrian path, such as utility poles and parked vehicles (Figure 10). Many of these issues create a tripping hazard for pedestrians and negatively impact accessibility, particularly for seniors and people with disabilities (Figure 11). The audit participants observed a person using a motorized wheelchair in the travel lane instead of the sidewalk (Figure 12). There is no bicycle infrastructure (lanes or paths) along the corridor, which may lead bicyclists to choose to ride on the sidewalk (Figure 13).

The sidewalks vary in width from four to six feet, which is narrow for an area that receives many pedestrians during the summer. The New Jersey Complete Streets Design Guide states that a 5-foot minimum sidewalk width is required to meet walkability standards, but sidewalks should be constructed as wide as possible to accommodate pedestrian demand. Some sidewalks along the corridor do not meet this standard, and those that are approximately 6 feet wide are likely to experience enough seasonal demand to warrant widening.

During the walkability audit, participants who reside and work in Seaside Heights explained that typical bicycle and pedestrian trips along Central Avenue can be divided into two categories: trips that originate or terminate at the boardwalk and trips which travel along Central Avenue. The latter characterizes the behavior of full-time residents and some seasonal residents who patronize stores on Central Avenue to fulfill their household needs. Participants explained that these pedestrians and cyclists tend to be lower-income and less likely to own a car. Additionally, in the off-peak season, Seaside Heights' many hotels and motels are home to low-income residents.

Figure 10. Sidewalk blocked by parked vehicle.

Figure 11. Narrow and cracked sidewalk with obstructions.

Figure 12. Man in wheelchair using roadway to travel.

Figure 13. Woman bicycling on sidewalk.

Intersections and Crosswalks

Central Avenue has 11 intersections along the study corridor, three of which are signalized (Figure 14). Some, but not all the intersections have painted crosswalks across Central Avenue (Figure 15). The marked crosswalks are of a high-visibility design. The traffic signals have pedestrian signal heads that activate automatically; however, some signal heads appeared too dim for easy visibility on the day of the audit.

The parallel service roadways interact with the intersections differently on each block. This inconsistency could lead to confusion for both drivers and pedestrians. For example, the team observed some drivers turning the wrong way onto the one-way service roads, which lacked signage. At other locations, vehicles stopped at cross streets blocked the entrance to the service roads, and the legal pedestrian crossing location is unclear (Figure 16).

The pedestrian crossing distances for Central Avenue are long, made even longer by the need to cross the service roads. Small medians between the service roads and Central Avenue provide a pedestrian waiting area, but there is no median dividing Central Avenue itself. As a result, pedestrian crossings are particularly challenging at unmarked crosswalks.

Most, but not all the curb ramps appear to be ADA-compliant (Figure 17). However, drainage issues were observed at one corner, making the ramp difficult to use. The prevalence of gravel along the sidewalks also indicates that drainage concerns are ongoing (Figure 18).

Figure 14. Pedestrians crossing at the intersection of Central Ave and Grant Avenue.

Figure 15. Pedestrians crossing at unmarked crosswalk.

Figure 16. Confusing intersection with service road.

Figure 17. ADA compliant curb ramps.

Figure 18. Poor drainage near intersection.

Safety

Safety considerations that can be observed through a walking audit include 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. In some areas, light posts are located behind the service roads, far from the main roadway and away from unmarked crosswalks. At other locations, they are adjacent to the main roadway but likely leave the sidewalk dark. The distance between the existing overhead cobra lighting fixtures suggests that they are too far apart to provide uniform lighting without excess shadows (Figure 19).

The safety needs of pedestrians include lighting along sidewalks and at crosswalks for visibility to vehicle traffic. Lighting needs of both the sidewalks and the crosswalks should be assessed.

A speed study was not conducted; however, the research team noted that cars appeared to be traveling over 25 mph and observed drivers failing to yield to pedestrians in crosswalks. Low traffic volumes and a wide roadway make drivers feel comfortable traveling at higher speeds. Especially in the off-peak season, the lower traffic volume may lead to more speed-related safety hazards for all road users.

A few sections of the study area were noted by the study team as being particularly uncomfortable for pedestrians. In these areas, there was no shoulder and no on-street parking, placing the pedestrian immediately adjacent to the travel lane. Some cars were observed to be blocking the crosswalks, which provides a hurdle for the pedestrians trying to cross the intersections, especially where service road intersections are very close to intersections with the main travel lanes. The service roads produce multiple additional conflict points between pedestrians and vehicles.

There is no bicycle infrastructure along this corridor. Some bicyclists were observed riding in the vacant parking lane on the main roadway (Figure 20). Other cyclists used the frontage road, and a couple rode on the sidewalk.

Absent or faded signs were noted, especially where one-way segments of roadway are not properly marked with directional signage. The audit team observed both drivers and bicyclists going the wrong way down service lanes (Figure 21 and Figure 22).

Figure 19. Streetlight located far from crosswalk.

Figure 20. A bicyclist using the parking spaces as a travel lane.

Figure 21. Missing signage makes traffic direction on service roads unclear.

Figure 22. Missing "Do Not Enter" sign on service road.

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. However, the area would benefit from pedestrian-oriented lighting and streetscaping efforts, especially those that create a buffer between pedestrians and moving vehicles. Most of the street trees appear to be dead or dying, and they offer little shade (Figure 23).

A welcome sign is located in the median at the southern end of the study area, and most of the traffic signal control boxes have been decorated with art (Figure 24 and Figure 25). Banner poles are present, but they are in poor condition.

The corridor lacks amenities such as benches, trash cans, bus shelters, or bicycle racks. There is a bus stop at Central Avenue between Webster Avenue and Hamilton Avenue, where there is a concrete pad for a shelter but no shelter or bench. The bus stop area also includes a sizeable grassy area, which could support trees for shade (Figure 26).

Figure 23. Empty tree wells and dying trees.

Figure 24. Art installation in the median/

Figure 25. Traffic signal control boxes wrapped with art.

Figure 26. Bus stop without seating or shelter.

Detailed Conditions and Recommendations

Central Avenue is unique on a block-by-block basis. This section looks at detailed conditions in each section, with recommendations. Most of the recommendations can be installed in the short term by changing striping. These changes can later be formalized with permanent infrastructure.

Porter Avenue to Dupont Avenue

South of the corridor, State Route 35 is a three-lane roadway along Central Avenue. As it reaches Seaside Heights, the highway turns west to bypass the Borough along the western edge. One lane continues north into the study area and then quickly transitions back to two lanes within a 45' roadway before reaching Dupont Avenue (Figure 29). An existing bicycle lane ends at the municipal boundary (Figure 27).

In the southbound direction, striping is used to narrow the 54' of asphalt to one lane. Adjacent to that, a frontage road provides access to homes. In the center of the roadway, a 24' grass median separates the directions of traffic.

Figure 27. Bicycle lane ends at municipal border.

The intersection with Route 35 lacks crosswalks for pedestrians, who are faced with a four-lane highway. Bicyclists progressing south must cross the four lanes quickly to continue into Seaside Park (Figure 28).

While this is where the "Welcome to Seaside Heights" art is located in the median, the roadway is still extremely wide and designed for high speeds. As such, a gateway treatment may be needed to clarify to drivers that they are exiting State Route 35 and entering a local roadway. The chicane treatment shown in Figure 30 is an example of what a design that lowers vehicle speeds could look like. Implementation will require an engineering study and the support of local, county, and state officials. A temporary version could be tested with a demonstration project as part of an additional study.

Recommendations shown in Figure 30 include:

- (Not shown) Encourage NJDOT to redesign Route 35 to provide continuous bicycle and pedestrian access between Seaside Heights and Seaside Park.
- Northbound:
  - Stencil 25 mph speed limit onto the roadway.
  - Use excess roadway width to create a chicane slowing vehicles using a visual gateway while maintaining one 11' lane and new 7' bicycle lane.
  - Create dedicated 11' left turn lane, separated by 8' median from single through lane.
  - Add 8' curb extension at corner.
- Southbound:
  - Remove excess pavement and replace it with green infrastructure, leaving one lane.
  - Sharpen turn into frontage road, slowing vehicles.
  - Transition bicycle lane into frontage road.
  - With NJDOT, investigate shifting the roadway and reconfiguring the intersection with Rt. 35 to ensure all lots have roadway frontage.
- Dupont Avenue Intersection:
  - Stripe high-visibility crosswalks.
  - Add pedestrian-activated Rectangular Rapid-Flashing Beacons (RRFB).
  - Expand the center median to decrease crosswalk distance.

Figure 28. Looking south across Route 35. There is no crosswalk for pedestrians or bicyclists.

Figure 29. Aerial view of southern end of corridor. Red line indicates municipal boundary. Route 35 creates a barrier to mobility.

Figure 30. Example of a chicane treatment (yellow), bicycle lanes (green) and high-visibility crosswalks to slow drivers.

Dupont Avenue to Lincoln Avenue

The northbound side of the roadway shifts west, creating a triangular parcel, currently filled with grass (Figure 31). This space presents an opportunity for green infrastructure, such as a rain garden or other stormwater retention area.

The southbound side transitions from two lanes to one, although there is no advance warning to drivers (Figure 32). There is no signage stating if parallel parking is allowed or prohibited.

The frontage road on the western side of the roadway is missing a "Do Not Enter" sign. Parking signage does not reflect current regulations, which allow free parking for residents.

The intersection with Lincoln Avenue has updated ADA-compliant curb-ramps. A high-visibility crosswalk is marked on the northern leg. The other crosswalks are unmarked. There is no signage providing advance warning of the crosswalk to drivers.

Recommendations:

- Continue the bicycle lane and one-lane configuration from the previous section.
- Add high-visibility crosswalk markings on all legs with advance warning-signage and RRFB.
- Update parking signage to reflect current regulations and add or replace missing signs.
- Add "Do Not Enter" for frontage road.
- Investigate green-infrastructure opportunities.

Lincoln Avenue to Hamilton Avenue

The main portion of the roadway transitions to four lanes with parallel parking on both sides and no center median in a 64-foot space. Additionally, both sides of the roadway have frontage roads with angled parking. A narrow, paved median separates the main roadway from the frontage roads.

The intersection of Franklin Avenue does not have any marked crosswalks (Figure 33). Franklin Avenue is one-way westbound and the stop bar is located past the frontage road. This creates a confusing situation for all roadway users, as cars stopped on Franklin Avenue waiting for a chance to cross Central Avenue block both the unmarked crosswalks and the frontage road (Figure 34). Additionally, it is unclear if northbound vehicles on the main roadway can enter the frontage road.

Figure 31. Existing grass area.

Figure 32. Looking north at lane merge.

Figure 33. Pedestrians using unmarked crosswalk.

Figure 34. Stop bar beyond the frontage road.

Recommendations (Figure 35):

- Install a road diet to reconfigure the main roadway with one traffic lane in each direction and protected bicycle lanes. Parking on both sides can be maintained with this configuration. Alternatively, parking on one side could be removed to allow for larger planted medians.
- Transition the frontage roads into the main roadway before the intersection, to create a narrower, better-defined intersection for all users.
- Add marked crosswalks on all legs.

Figure 36. Looking north to Hamilton Avenue.

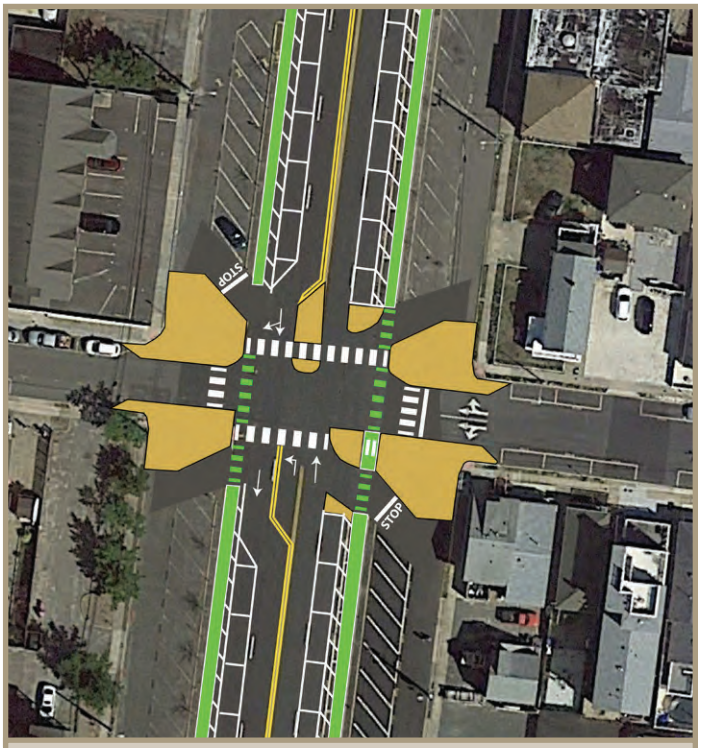


Figure 35. Potential road diet, increased pedestrian space, and simplified intersection at Franklin Avenue.

Hamilton Avenue to Summer Avenue

The intersection of Central and Hamilton Avenues is signalized, with high visibility crosswalks and updated ADA-compliant curb ramps. North of the intersection, the roadway widens to 180-feet. As a comparison, this is the same width as the Garden State Parkway. The added width is on the east side of the roadway, where the frontage road has 90-degree parking on both sides. Between Hamilton and Webster Avenues, there is a second 15-foot-wide frontage roadway used by buses to layover (Figure 37). According to residents, this area was the site of a train station.

The intersection with Webster Avenue is not signalized, and there are no marked crosswalks. Between Webster Avenue and Sumer Avenue, instead of a bus stop, there is a much wider frontage road. Although there is a lot of room, the sidewalk is very narrow and has obstructions. Due to the wide width of the travel lane (24-feet), and a lack of signage, it is unclear if vehicles can travel in both directions along this section of the frontage road.

Southbound, the frontage road directs drivers into the main roadway before reaching the intersection (Figure 38). This is the treatment this report recommends for all intersections, as shown in Figure 35.

Figure 37. A New Jersey Transit bus using the eastern-most frontage road, while an Ocean Ride shuttle stops in a parking bay.

Figure 38. Southbound on Central Avenue, the frontage road does not create an additional intersection.

Between Webster Avenue and Summer Avenue, the overall roadway is slightly narrower than the previous segment, with a width of 175-feet. The main carriageway continues with two lanes in each direction and parallel parking. On the east side, there is one frontage road with a very wide travel lane (34-feet). As with the previous section, it is unclear if two-way traffic is allowed (Figure 39). On the west side, the frontage road transitions into Central before the intersection. The frontage road also has a secondary access point mid-block.

Figure 39. The frontage road is wide enough for two-way traffic, and there is no signage indicating otherwise.

Recommendations:

- Continue the road diet, including one lane in each direction, protected bicycle lanes, and parallel parking.
- Add signage and striping on frontage roads clarifying direction of travel.
- In the short-term, on the eastern frontage road between Summer and Webster Avenue, shift the parking and add an on-road sidewalk to create an accessible path of travel.
- Add benches and/or shelters at the bus stop, along with wayfinding information for transit passengers.
- Consider taking advantage of the large amount of space available to completely redesign this segment as described in the next section (Central Green Concept).

Figure 40. Mid-block opening in the frontage road.

Summer Avenue to Grant Avenue

The intersection of Central and Summer Avenues is signalized, with high visibility crosswalks and updated ADA-compliant curb ramps. North of the intersection, the roadway narrows again to 134-feet. While the main carriageway remains the same width as the previous segments, the eastern frontage road consists of a single 12-foot travel lane and one row of angled parking up to Blaine Avenue, and then one travel lane and two rows of parallel parking to Grant Avenue.

Figure 41. Looking south from Grant Avenue, a curb extension creates a mandatory right turn.

As with the previous sections, the frontage road creates a confusing intersection with Blaine Avenue, which is not signalized. Additionally, there is a mid-block access to the frontage road (Figure 40). At the intersection with Grant Avenue, a sharply angled curb extension forces drivers exiting the frontage road to turn east, away from Central Avenue (Figure 41).

While this segment is narrower than the previous one, the short-term recommendations remain the same:

- Continue the road diet, including one lane in each direction, protected bicycle lanes, and parallel parking.
- Add signage and striping on frontage roads clarifying direction of travel.
- Transition the frontage roads into the main roadway before the intersections.

Grant Avenue to Sheridan Avenue

The roadway continued to narrow as the western frontage road is replaced with houses. At the beginning of this section, the eastern frontage road has two entrances (Figure 42). As recommended in previous segments, closing one of them simplifies the intersection and creates a safer path of travel for pedestrians.

The intersection of Central Avenue and Sherman Avenue is not signalized, but there are high visibility crosswalks across most of Central—the crosswalks are not marked across the frontage road (Figure 43). The next segment of roadway, north of Sherman Avenue, narrows to one lane in each direction. However, there is no signage indicating that one of the lanes ends and must merge. This transition happens in the middle of the intersection, which may potentially lead to sideswipe collisions.

Recommendations:

- Extend the high-visibility crosswalk striping across the frontage road.
- Continue the road diet from previous segments.
- In the short-term, or if the road diet is not installed, add signage noting the end of one travel lane.
- Close the southern entrance to the frontage road at Grant Avenue.

Figure 42. Looking north from Grant Avenue. The frontage road has two access points, the first of which can be closed to create a continuous sidewalk.

Figure 43. Incomplete crosswalk seen at Sherman Avenue in background. In foreground, missing trees.

Summary of Detailed Recommendations

The following table includes a summary of the recommendations discussed in the previous section. The conceptual recommendations presented here are a starting point for the Borough and the County to consider opportunities to improve Central Avenue. Most changes to the roadway would require a detailed traffic study that would examine factors such as motor vehicle traffic volume and speed, drainage, crash data, traffic signal phasing, motor vehicle turning requirements, and driver sight lines.

Recommendation	Location
Implement road diet with bicycle lanes	Entire corridor
Stripe high-visibility crosswalks at all intersections	Entire corridor
Install pedestrian-activated Rectangular Rapid-Flashing Beacons (RRFB)	Entire corridor (unsignalized intersections)
Update parking signage to reflect current regulations	Entire corridor
Investigate green infrastructure opportunities	Entire corridor
Transition frontage roads into main roadway before the intersection	Frontage Roads
Add missing "Do Not Enter" signs to frontage roads	Frontage Roads
Stripe direction of travel arrows	Frontage Roads
Establish corridor gateway with chicanes and 25mph speed stencils	Porter Avenue to Dupont Avenue
Add signage noting the end of one travel lane	Porter Avenue to Dupont Avenue
Shift the parking and add an on-road sidewalk	Hamilton Avenue to Summer Avenue
Add benches and/or shelters at the bus stop, along with wayfinding	Hamilton Avenue to Summer Avenue
Add signage noting the end of one travel lane	Grant Avenue to Sheridan Avenue

Additional Recommendations

During the workshop, participants expressed the desire to improve pedestrian infrastructure, add bicycling facilities, and enhance the aesthetics of the corridor. As Central Avenue is a county route, Seaside Heights must work closely with Ocean County in advancing these improvements along Central Avenue.

1. 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 who 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://www.state.nj.us/transportation/eng/completestreets/pdf/CS_Model_Policy_2019.pdf). A policy can be strengthened by enacting it as a municipal ordinance. The guide also provides example text for doing so.

2. Implement a Road Diet

The neighborhood surrounding the study area is well suited for walking and bicycling, thanks to the tight network of streets and availability of destinations within a short distance. However, pedestrian activity is hindered by unmarked crosswalks, concerns about traffic, and a lack of pedestrian amenities. Currently, most of the roadway is devoted to moving vehicles, at the expense of other modes. While a traffic study has not been undertaken, low traffic volume was observed during the audit. The municipal team confirmed that this is the case for most of the year, except for certain summer weekends, because traffic going past Seaside Heights is more likely to use NJ-35, a bypass highway. Parking utilization along the roadway also appears to be extremely low on most days.

In the short term, Seaside Heights and Ocean County should explore a road diet, in which two traffic lanes are removed and are replaced with protected bicycle lanes. Such a project can be done by restriping the roadway within the existing curb-to-curb space. The addition of bicycle lanes would provide connectivity with the towns north and south of Seaside Heights, which already have bicycle lanes on Central Avenue. They would also provide a clearly delineated space for bicyclists to ride, which in turn may decrease sidewalk riding. Removing a lane may also reduce vehicular collisions, especially those caused by speeding and changing lanes. Figure 44 shows how the main carriageway can be reconfigured. If the road diet is successful, the separation of motor vehicle and bicycle lanes can be reinforced by the addition of hard curbs, bollards, or barriers to provide additional protection and to encourage usage by less-confident cyclists. The Borough should coordinate a road diet with an update to parking regulations and signage, including wayfindng to advise visitors of the Bayfront parking lot or other alternatives nearby, and dedicating curb spaces for deliveries or ride-hail pickups where needed.

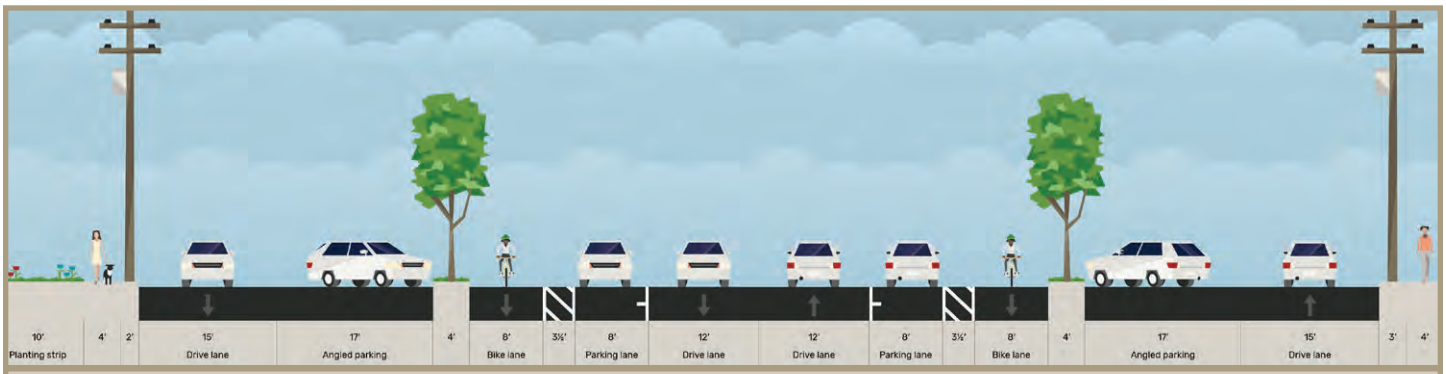


Figure 44. A cross section of Central Avenue, between Lincoln Avenue and Franklin Avenue, with a proposed road diet.

3. Provide and Maintain High Quality Pedestrian Infrastructure

The previous recommendation can be implemented quickly, but it does not address all the corridor deficiencies. In the long term, Seaside Heights should consider a larger project that also rebuilds the service roads and medians, allowing for wider sidewalks, more greenery, narrower intersections, and simpler traffic patterns.

The audit found that sidewalks are narrow and in poor condition. A streetscape project could provide an opportunity to widen sidewalks, ensure a continuous smooth surface, and beautify the corridor with the selection of accent materials such as brick (Figure 45). Although Seaside Heights is a tourist destination, most activity is located on the boardwalk. A streetscape project that enhances the appeal of Central Avenue can help support existing businesses located along the corridor and encourages new investment. Wider sidewalks could allow for outdoor seating at existing businesses. The addition of pedestrian-focused wayfinding signage can help to direct visitors to and from the boardwalk. Adding trash/recycle bins may help reduce litter.

Most, if not all, trees along the roadway need to be replaced. To ensure a beautiful corridor, larger tree wells should be provided to allow the trees to develop a complete root structure. Care must be taken in selecting tree species appropriate for the barrier island soil and climate, which may 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. Green infrastructure could also help Seaside Heights increase resiliency against climate change and an increased occurrence of tropical storms or hurricanes. Further, introduction of more plantings can reduce the amount of impervious cover and can reduce the urban heat island effect often found in areas with extensive pavement.

Figure 45. Patterned sidewalk, and trees with railings add visual appeal to a sidewalk in Somerville, NJ.

Figure 46. A well-lit midblock crossing with green infrastructure in Union, NJ. (Photo: Arterial LLC)

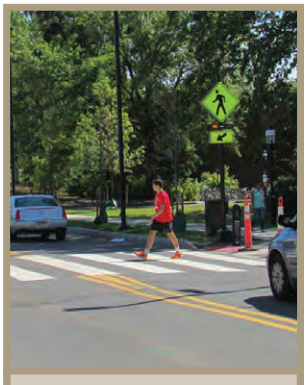


Figure 47. RRFB located in Princeton, NJ.

Green infrastructure can be combined with traffic safety, such as by building curb extensions that also act as rain gardens (Figure 46). Curb extensions shorten crossing distance for pedestrians, increase pedestrian visibility, reduce illegal parking near intersections, and discourage speeding. For additional impervious surface coverage, the frontage road parking lots provide additional opportunities for rain gardens.

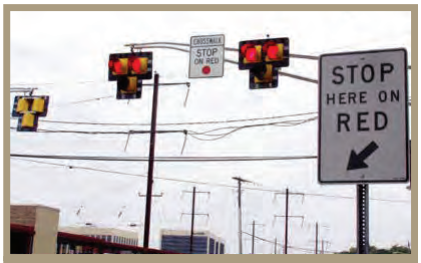


Figure 48. Pedestrian Hybrid Beacon near Metropark Train Station, NJ.

Currently, marked crosswalks do not exist at all intersections. High visibility marked crosswalks should be painted at intersections where they do not currently exist. At unsignalized intersections, Seaside Heights should explore enhanced signage for pedestrians, which may include "stop for pedestrians" signage, Rectangular Rapid Flashing Beacons (RRFB), or Pedestrian Hybrid Beacons (PHB) (Figure 47 and Figure 48).

4. Lighting

While attractive lighting should be incorporated into a streetscape project, it is important that safety be a prime consideration. Seaside Heights should ensure that both the main roadway and service roads are well lit, especially at intersections. In addition, pedestrian-scale lighting along the sidewalks can help with personal safety concerns. Lighting is now an FHWA Proven Safety Countermeasure, and in 2022 they released a Lighting Primer (https://safety.fhwa.dot.gov/roadway_dept/night_visib/docs/Pedestrian_Lighting_Primer_Final.pdf).

5. Traffic Signals, Signage, and Striping

All traffic signals along the study corridor should be upgraded to include auditory pedestrian cues with pedestrian countdowns at all four crossings. Pedestrian phases should provide pedestrians sufficient time to cross the intersection regardless of their abilities. Seaside Heights and Ocean County should investigate modifying signal timing to allow for longer crossing time in the summer, when tourists may be walking slower as they carry beach chairs and push strollers.

Many signs along the corridor are faded or missing. This includes a lack of "Do Not Enter" signs along the service road, to warn motorists of one-way traffic. Parking regulation signs are also missing in some segments, and curbs should be painted yellow where parking is prohibited near intersections. The Borough and County should work to install or replace signage and upgrade signals as funding becomes available.

6. Create a Central Green

The generous width of Central Avenue divides Seaside Heights and presents an imposing challenge for bicycle and pedestrian travel. While the recommended road diet can help to increase safety and make the corridor appealing for all users, there is an opportunity to re-imagine how the space is used to maximize its value for residents.

While Seaside Heights has a beautiful beach and boardwalk, there is a lack of park space and limited land area available to build new public spaces for residents. By reconfiguring the space between Hamilton Avenue and Summer Avenue, the municipality can create more than 50,000 square feet of public open space. Many towns in New Jersey are anchored by such a common space, such as Morristown, with their historic Green (107,000 ft²), or Princeton, with Palmer Square (20,000 ft²) (Figure 49). Other examples across the country include Market Square in Pittsburgh, Pennsylvania (35,000 ft²), and the various lush squares in Savannah, Georgia (40,000-60,000 ft²) (Figure 50).

Undertaking such a project would give the town a blank slate to add in amenities that residents desire. Options could include seating, a gazebo, playground, dog park, art, or fountains. A central stage could provide a new venue for local performances. An open plaza could host a farmers market or other seasonal vendors. Green infrastructure could provide resiliency for future storm events. The conceptual diagram in Figure 51 shows that there is enough space to accommodate vehicle traffic, parking, protected bicycle lanes, and a new community focal. Implementing a project of this scale would involve significant community outreach, funding, a multi-step design process, and support from local and County elected leaders and staff.

Figure 49. Yoga in the Morristown Green.

Figure 50. Telfair Square, Savannah.

Figure 51. Vision for a new Central Green that accommodates existing traffic patterns.

Conclusion

Central Avenue is an important corridor that crosses Seaside Heights, but the current design prioritizes peak summer vehicle traffic above all other users. With appropriate infrastructural improvements, the corridor could become a safer, more comfortable, and more attractive destination for walking and bicycling. Local officials interested in improving the corridor 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 presentation on Complete Streets and participated in a walkability audit.

A road diet, sidewalk improvements, bicycle infrastructure, and high-quality pedestrian amenities could greatly improve the walkability and bikeability of the area while encouraging more people to walk and bicycle along the corridor. A grand redesign of the roadway could create a new park and central gathering point for the community. Nearly all of these changes will require coordination with Ocean County officials. Findings and recommendations from this report can be used to help develop Seaside Heights' future Complete Streets plans.

Figure 52. Seaside Heights 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

Tuesday, August 23, 2022, 1:30 pm to 4:30 pm
Community Center, 1000 Bay Blvd., Seaside Heights

WORKSHOP AGENDA

1:30 pm
Welcome and Walkable Community Presentation

2:30 pm
Walking Audit

4:00 pm
Debrief and Next Steps

4:30 pm
Adjourn

Join us to address walkability on Central Avenue, between Porter Ave. and Sheridan Ave.!

To register for this workshop, visit:
https://go.rutgers.edu/seaside

Seaside Heights wants to make Central Avenue safer!

A Walkability Workshop engages borough employees, residents, and businesses on issues regarding walking and biking. After learning about what to look for, workshop participants will walk a half-mile corridor assessing their 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.

NJTPA NORTH JERSEY TRANSPORTATION PLANNING AUTHORITY

SUSTAINABLE JERSEY • REGISTERED •

RUTGERS

Taller Práctico: Comunidades Transitables

Martes, agosto 23, 2022, 1:30 pm a 4:30 pm
Community Center, 1000 Bay Blvd., Seaside Heights

Únase a nosotros para abordar la accesibilidad para peatones en Central Ave., entre Porter Ave. y Sheridan Ave.!

Para registrarse en este taller, visite:
https://go.rutgers.edu/seaside

AGENDA DEL TALLER

1:30 pm
Bienvenida y presentación

2:30 pm
Auditoría a pie

4:00 pm
Informe y próximos pasos

4:30 pm
Finalizar sesión

¡Seaside Heights quiere que Central Avenue sea más segura!

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 un corredor de media milla evaluando sus calles y aceras existentes e identificar los problemas a superar para garantizar condiciones más seguras 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 gobiemo municipal para promover iniciativas de calles completas..

NJTPA NORTH JERSEY TRANSPORTATION PLANNING AUTHORITY

SUSTAINABLE JERSEY REGISTERED

RUTGERS

B. Workshop Agenda and Field Audit Form

CENTRAL AVENUE

WALKABLE COMMUNITY WORKSHOP

Tuesday, August 23, 2022 | 1:30 pm to 4:30 pm

WORKSHOP AGENDA

1:30 pm **Welcome and Walkable Community Presentation**
Complete Streets Technical Assistance (CSTA) project team will lead a presentation to train town employees, residents, business owners and workers on what to look for when auditing walking and biking infrastructure.

2:30 pm **Walking Audit**
Participants will walk a half-mile corridor assessing their existing streets and sidewalks and identifying issues to overcome to ensure safer conditions for pedestrians and bicyclists.

4:00 pm **Debrief and Next Steps**
Participants will generate planning level recommendations to improve the safety, convenience, and comfort of the walking environment of what they observed on the walking audit to be incorporated as recommendations into the final report.

4:30 pm **Adjourn**

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.

Contact

Person Completing: _____

Email: _____

Phone: _____

Central Avenue from Sheridan Avenue to Grant Avenue

Design

How many lanes are there?

What is the speed limit?

Are there crosswalks?

Is there a median?

Driver Behavior

Circle all that apply:

a. Speeding

b. Blocking crosswalk

c. Not stopping for pedestrians

d. Double parking

e. Loud music

f. Loud engine

g. Not stopping for traffic control

Sidewalk Condition

Are sidewalks present? One Side (Which?) Both Sides No

Any problems observed, (e.g., missing, broken, sloped, blocked, narrow):

Curb Cuts/Ramps

Any problems observed, (e.g., missing, too steep, not aligned with crosswalk, blocked, missing truncated domes):

Signage

Pedestrian oriented signs: Excellent Average Poor None

Car oriented signs: Excellent Average Poor None

Comments:

Amenities	**Check all that apply:** ☐ Bench ☐ Trash Can Overflowing? Yes/No ☐ Other _____ ☐ Bus shelter ☐ Bicycle Racks ☐ Other _____
Lighting	☐ Overhead cobra ☐ Historic ☐ Pedestrian oriented Is there lighting over the crosswalk? ☐ Yes ☐ No
Trees	☐ Frequent, good shape ☐ Frequent, poor shape ☐ Mostly empty tree wells ☐ Infrequent, good shape ☐ Infrequent, poor shape ☐ No tree wells
	Additional Notes:

Central Avenue from Grant Avenue to Summer Avenue	
Design	How many lanes are there? What is the speed limit? Are there crosswalks? Is there a median?
Driver Behavior	**Circle all that apply:** a. Speeding b. Blocking crosswalk c. Not stopping for pedestrians d. Double parking e. Loud music f. Loud engine g. Not stopping for traffic control
Sidewalk Condition	**Are sidewalks present?** One Side (Which?) Both Sides No **Any problems observed, (e.g., missing, broken, sloped, blocked, narrow):**

Curb Cuts/Ramps	**Any problems observed, (e.g., missing, too steep, not aligned with crosswalk, blocked, missing truncated domes):**
Signage	**Pedestrian oriented signs**: Excellent Average Poor None **Car oriented signs**: Excellent Average Poor None **Comments:**
Amenities	**Check all that apply:** ☐ Bench ☐ Trash Can Overflowing? Yes/No ☐ Other _____ ☐ Bus shelter ☐ Bicycle Racks ☐ Other _____
Lighting	☐ Overhead cobra ☐ Historic ☐ Pedestrian oriented Is there lighting over the crosswalk? ☐ Yes ☐ No
Trees	☐ Frequent, good shape ☐ Frequent, poor shape ☐ Mostly empty tree wells ☐ Infrequent, good shape ☐ Infrequent, poor shape ☐ No tree wells
	Additional Notes:

Central Avenue from Summer Avenue to Lincoln Avenue	
Design	How many lanes are there? Are there crosswalks? What is the speed limit? Is there a median?
Driver Behavior	**Circle all that apply:** a. Speeding b. Blocking crosswalk c. Not stopping for pedestrians d. Double parking e. Loud music f. Loud engine g. Not stopping for traffic control
Sidewalk Condition	**Are sidewalks present?** One Side (Which?) Both Sides No **Any problems observed, (e.g., missing, broken, sloped, blocked, narrow):**
Curb Cuts/Ramps	**Any problems observed, (e.g., missing, too steep, not aligned with crosswalk, blocked, missing truncated domes):**
Signage	**Pedestrian oriented signs**: Excellent Average Poor None **Car oriented signs**: Excellent Average Poor None **Comments:**
Amenities	**Check all that apply:** ☐ Bench ☐ Bus shelter ☐ Trash Can Overflowing? Yes/No ☐ Bicycle Racks ☐ Other _____ ☐ Other _____

Lighting	☐ Overhead cobra ☐ Historic ☐ Pedestrian oriented	Is there lighting over the crosswalk? ☐ Yes ☐ No
Trees	☐ Frequent, good shape ☐ Frequent, poor shape ☐ Mostly empty tree wells	☐ Infrequent, good shape ☐ Infrequent, poor shape ☐ No tree wells
	Additional Notes:	

Central Avenue from Lincoln Avenue to Porter Avenue		
Design	How many lanes are there? What is the speed limit?	Are there crosswalks? Is there a median?
Driver Behavior	**Circle all that apply:** a. Speeding b. Blocking crosswalk c. Not stopping for pedestrians d. Double parking	e. Loud music f. Loud engine g. Not stopping for traffic control
Sidewalk Condition	**Are sidewalks present?** One Side (Which?) Both Sides No **Any problems observed, (e.g., missing, broken, sloped, blocked, narrow):**	

Curb Cuts/Ramps	**Any problems observed, (e.g., missing, too steep, not aligned with crosswalk, blocked, missing truncated domes):**
Signage	**Pedestrian oriented signs**: Excellent Average Poor None **Car oriented signs**: Excellent Average Poor None **Comments:**
Amenities	**Check all that apply:** ☐ Bench ☐ Trash Can Overflowing? Yes/No ☐ Other _____ ☐ Bus shelter ☐ Bicycle Racks ☐ Other _____
Lighting	☐ Overhead cobra ☐ Historic ☐ Pedestrian oriented Is there lighting over the crosswalk? ☐ Yes ☐ No
Trees	☐ Frequent, good shape ☐ Frequent, poor shape ☐ Mostly empty tree wells ☐ Infrequent, good shape ☐ Infrequent, poor shape ☐ No tree wells
	Additional Notes:

C. Potential Funding Resources

This appendix provides a list of grant programs available to New Jersey communities for the advancement of Complete Streets initiatives, including both infrastructure and non-infrastructure projects, and programs to increase walking and bicycling. A table has been included that lists the most common grant sources for Complete Street related projects. This appendix also includes links to two online databases with additional funding sources. The grants listed are highly competitive; grant application requirements should be carefully reviewed before deciding to apply. Incomplete grant applications may be automatically rejected. The most successful applications tell the story of the populations most in need of the proposed improvements, especially traditionally underserved or vulnerable populations. Applications should use compelling pictures, data, and other documentation, and indicate how and why the project was selected.

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/). The New Jersey Transportation Trust Fund and the 2021 Bipartisan Infrastructure Law provide the opportunity for funding assistance to local governments for road, bridge, and other transportation projects. While NJDOT and the three metropolitan planning organizations that cover the state administer many federal aid programs, including Transportation Alternatives and Safe Routes to School, the USDOT administers some grant programs directly. NJDOT administers state aid programs. Below are some options for funding infrastructure projects through NJDOT.

State Aid Infrastructure 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 to promote bicycling as an alternate mode of transportation in New Jersey. A primary objective of the Bikeway Grant Program is to support the State's goal of constructing 1,000 new miles of dedicated bike paths that are physically separated from vehicle traffic. 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

Other NJDOT Assistance

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.

State-Administered Federal Aid Infrastructure Grant Programs

Transportation Alternatives Program: The Transportation Alternatives Program is a set-aside of the Surface Transportation Block Grant Program, and it is sometimes referred to as TA Set-Aside. It provides federal funds for community-based "non-traditional" transportation projects designed to strengthen the cultural, aesthetic, and environmental aspects of the nation's intermodal system. Municipalities can receive bonus points on the grant 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 funded through the Federal Highway Administration's (FHWA) Federal Aid Program and is being administered by the NJDOT, in partnership with the North Jersey Transportation Planning Authority (NJTPA), the Delaware Valley Regional Planning Commission (DVRPC), and the South Jersey Transportation Planning Organization (SJTPO). 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. Applicants can receive bonus points on the grant if they have School Travel Plans, a Complete Streets Policy, and 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. The program is currently on hold as it undergoes revisions. Learn more and get notified of future grant opportunities here: https://dep.nj.gov/greenacres/trails-program-home/

Federal Highway Administration-Administered Federal Aid Infrastructure Grant Programs

The Bipartisan Infrastructure Law (BIL), also known as the Infrastructure Investment and Jobs Act of 2021 (IIJA), and the Inflation Reduction Act of 2022 (IRA) established new funding programs that can be helpful for county and municipal governments looking to fund Complete Streets and other safety and active transportation projects. The new funding generally requires a 20 percent local match on a cost-reimbursement basis. In other words, for every dollar spent within the grant's budget, up to 80 cents will be eligible for reimbursement by the federal government. Eligible entities apply for grants directly to the United States Department of Transportation through the grants.gov online portal.

Safe Streets and Roads for All Program (SS4A): This program was established out of the Infrastructure Investment and Jobs Act of 2021 (IIJA). It 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, undergo demonstration projects, and implement permanent measures. 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 United States Department of Transportation'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

Reconnecting Communities Pilot Program (RCP): The Reconnecting Communities Pilot Program was established by the Infrastructure Investment and Jobs Act of 2021 (IIJA). The program aims to correct wrongs of past transportation projects that have isolated or otherwise cut off communities from jobs and other amenities. Ideal projects improve access in one or more ways, increasing opportunities for residents of impacted communities. Congress has appropriated $1 billion for this program through fiscal year 2026. States, counties, and local units of government are eligible to apply for funding to plan and implement projects on facilities of which the applicant is the owner. Non-owners may apply for planning grants, as well as capital construction grants, provided that the facility owner has appropriately endorsed the application. All grants require a 20 percent local match. More information is available here: https://www.transportation.gov/grants/reconnecting-communities

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

Neighborhood Access and Equity Grant Program: This program was created by the Inflation Reduction Act of 2022 (IRA). Much of the eligibility and criteria are similar to the Reconnecting Communities Pilot (RCP, see above). It appropriates an additional $1.8 billion to reconnecting 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 districts and schools make progress toward Sustainable Jersey for Schools certification. Learn more here: http://www.sustainablejerseyschools.com/

Funding from Other Sources

Various other funding sources exist that may help municipalities further cComplete Streets projects. Both Sustainable Jersey and Together North Jersey have developed comprehensive online databases that catalog the many funding sources available. They can be found at the following locations:

Together North Jersey Funding and Resources Database: https://togethernorthjersey.com/funding-tools-database/

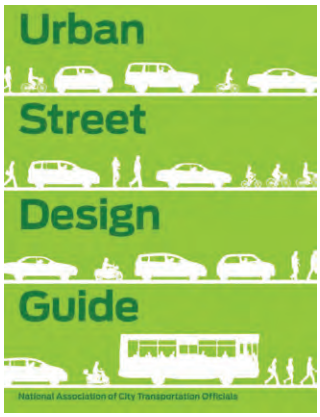
New Jersey Transportation Infrastructure Bank (NJTIB): The NJTIB is an independent State Financing Authority responsible for providing and administering low interest rate loans to qualified municipalities, counties, and regional authorities in New Jersey. The unique partnership with NJDOT was established 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 Capital Programs: In the case where alternative funds are not available but there is community consensus and political will to move forward with a project, county and municipal capital programs should be considered. Local budgets may have the ability to support some projects, especially if other state and federal programs provide budget relief in other areas.

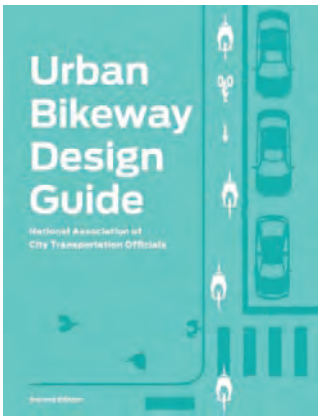
County and Municipal Open Space Trust Funds: All New Jersey counties and many New Jersey municipalities have an Open Space Trust Fund, which is a dedicated program supporting open space land acquisition. The trust funds are established by ballot measure. Depending on the fund parameters, other development 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



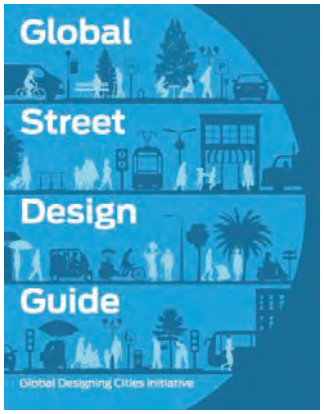
[Urban Street Design Guide]



[Urban Bikeway Design Guide]

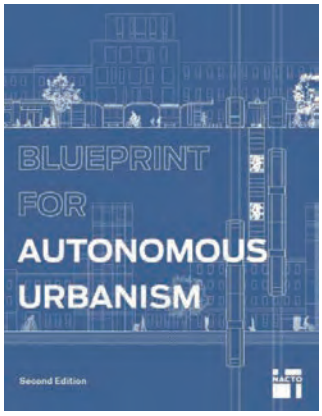
[Transit Street Design Guide]

[Urban Street Stormwater Guide]



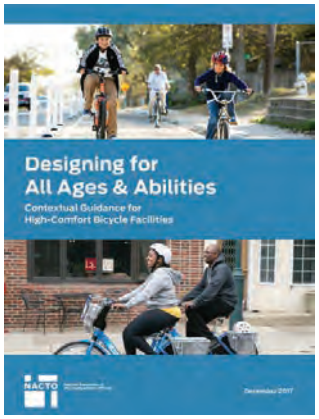
[Global Street Design Guide]

[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]

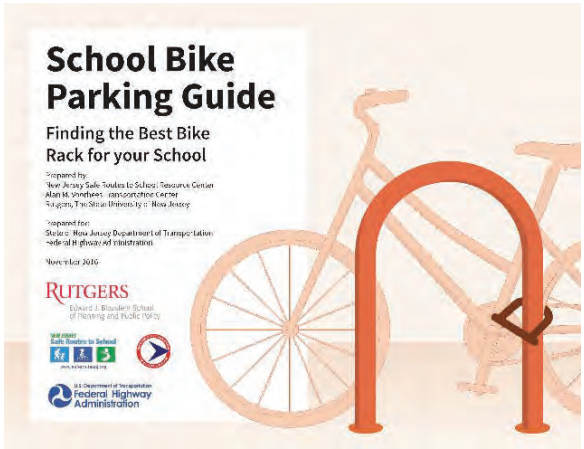
NJDOT Guides

[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]



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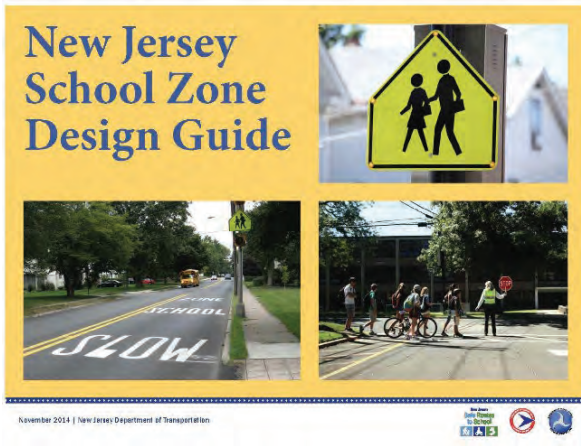
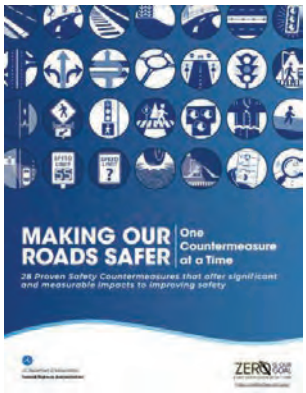


[New Jersey School Zone Design Guide]

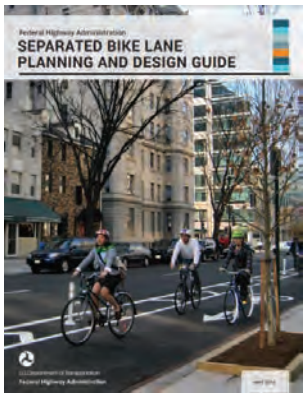
ADA Guidelines

[ADA Standards for Accessible Design]

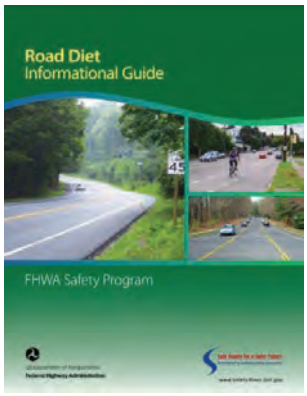
FHWA Guides



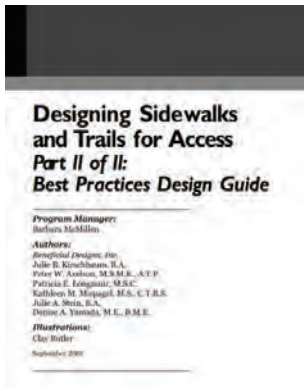
[Making Our Roads Safer: One Counter-measure at a Time]



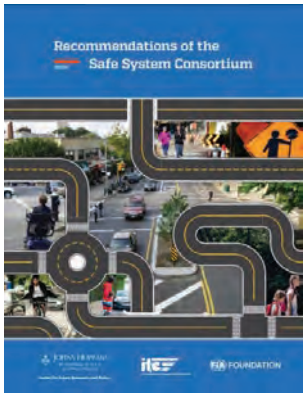
[Separated Bike Lane Planning and Design Guide]



[Road Diet Informational Guide]

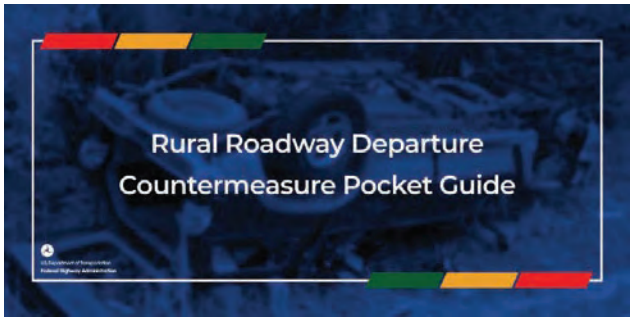


[Designing Sidewalks and Trails for Access Part II of II: Best Practices Design Guide]



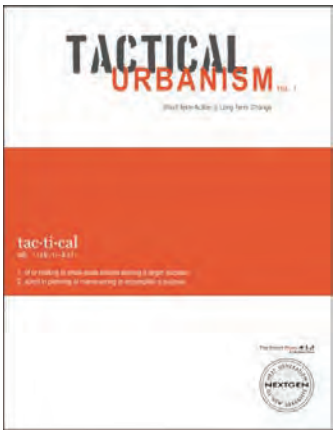
[Recommendations of the Safe System Consortium]

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

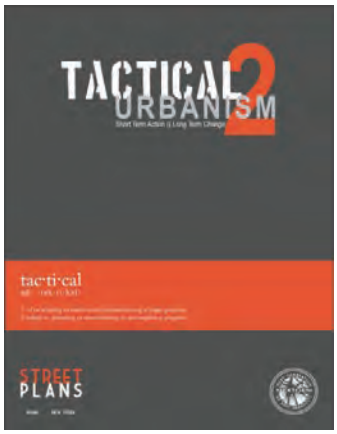


[Rural Roadway Departure Countermeasure Pocket Guide]

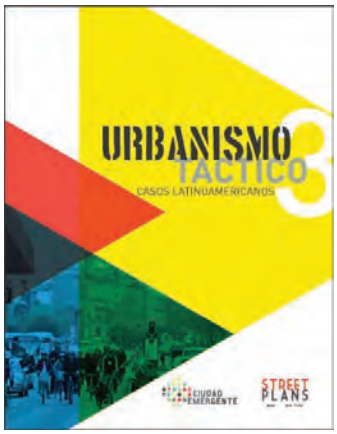
Tactical Urbanism Guides



Tactical Urbanism 1



Tactical Urbanism 2



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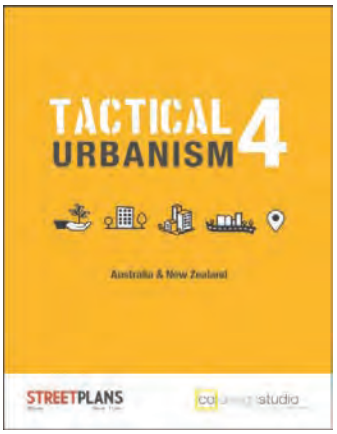

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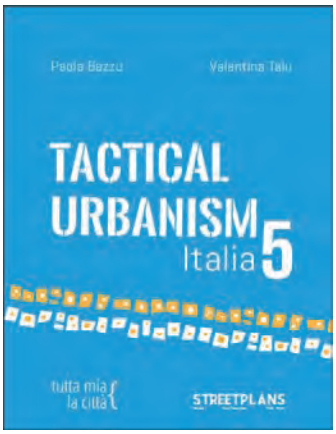

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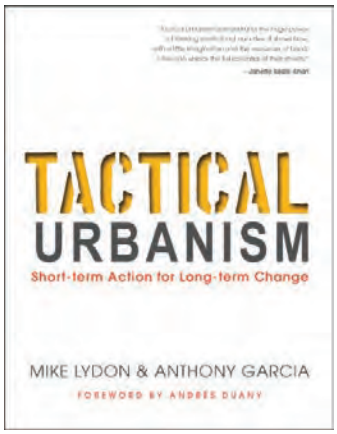
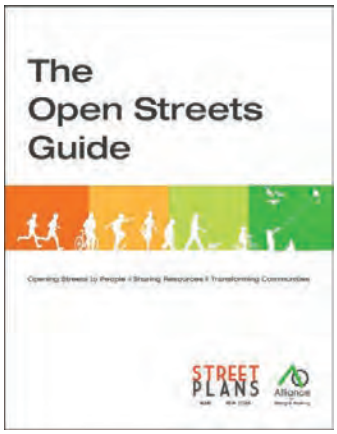
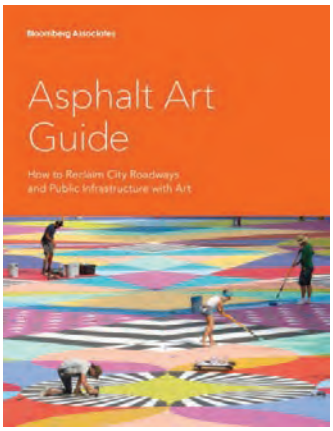


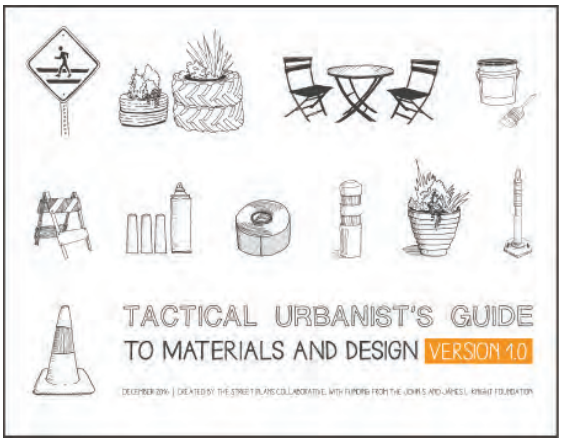
Tactical Urbanism: The Book



The Open Streets Guide



Asphalt Art Guide



Tactical Urbanist's Guide to Materials and Design

Fast-Tracked: A Tactical Transit Study