



Complete & Green Streets Policy

Borough of Dunellen, Middlesex County, NJ

2023



About the Report

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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

The Borough of Dunellen, New Jersey, participated in the 2022-2023 North Jersey Transportation Planning Authority (NJTPA) Complete Streets Technical Assistance (CSTA) Program. The NJTPA worked with the Alan M. Voorhees Transportation Center (VTC) at Rutgers, the State University of New Jersey, and Sustainable Jersey (SJ) to provide technical assistance to the Borough.

Dunellen received assistance in developing a Complete & Green Street Policy. This report provides insights into the policy planning process and provides several recommendations for promoting Complete Streets in Dunellen. The project team gathered stakeholder and public input as part of its analysis of pedestrian safety concerns in the Borough. Following that analysis, the team recommended several options for a resolution or ordinance and additional steps to advance Complete Streets within the Borough.

Recommendations included adopting a model policy provided by the CSTA team, strengthening partnerships within the health and transportation sectors within the county for support of policy implementation, and encouraging continued training. The team also provided guidance on exploring funding opportunities for implementation of Complete Streets throughout the Borough.

This report's recommendations and draft policy will help the Borough of Dunellen implement Complete Streets on Borough roads, make them more competitive for grant funding, and communicate their roadway safety priorities to the state and county agencies that manage roads within Dunellen. Adopting Complete Streets and implementing transportation infrastructure designed for all users improves safety throughout the transportation network, providing benefits to the entire region.



Figure 1. Downtown Dunellen, NJ.

Study Overview

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 year 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.

The CSTA team worked closely with the Borough of Dunellen to develop a Complete & Green Streets policy, which will help the Borough implement Complete Streets on their roads, make them more competitive for grant funding, and communicate their roadway safety priorities to the state and county agencies that manage roads that pass through Dunellen. The Borough assembled a local Complete Streets team consisting of elected officials, municipal staff, municipal planning and engineering consultants, a resident, and a Planning Board representative to work with the study team. The study team and the municipal team kicked off the effort at a meeting in April 2022, where they discussed the objectives of the project and the safety issues within the Borough.

Methodology

Following the steps outlined in the NJDOT *Complete & Green Streets Model Policy and Guide*, the study included documentation of vulnerable populations in Dunellen, community outreach, a municipal code review, and recommendations for a Complete Streets policy, checklist, and ordinance.

All users of the transportation system are intended to benefit from Complete Streets implementation regardless of income, ethnicity, ability, or other differences. To identify underrepresented or underserved populations that should be prioritized for community engagement and Complete Streets improvements, Rutgers-VTC developed a profile that explores the prevalence and locations of vulnerable populations using a variety of equity indices and mapping tools, including the NJTPA Equity Analysis, NJDEP Environmental Justice Overburdened Communities, United Way ALICE populations, and CDC's Social Vulnerability Index. In addition, a Disability Profile report was created using the "Disability Snapshots" web application of NJFloodMapper. The Vulnerability Profile can be found in [Appendix A](#).

Learning from residents about their traffic safety concerns and the role that streets play in their vision for their community was an important part of the study process. Because Dunellen was in the process of completing a Master Plan Reexamination, a Climate Vulnerability Assessment, and a NJ TRANSIT Transit Friendly Planning technical assistance project, public outreach for this study was combined with these other efforts. Dunellen and the respective consultant teams and project sponsors met frequently during the summer of 2022 to plan a single community survey and public open house meeting that would cover all study topics. An online survey was promoted to residents during the months of August and September 2022, resulting in more than 140 responses. At the open house, held on the evening of September 14, 2022 at Lincoln Middle School, community feedback was collected using poster boards where community members used sticker dots to identify issues and areas of concern within the Borough.

Implementing Complete Streets requires more than just a policy—municipal codes and procedures should be consistent with the policy in order for it to be effective. Rutgers-VTC conducted a review of the current municipal code to identify opportunities where the Borough can better address bicycle and pedestrian safety by revising existing language or adding new language. Recommendations include model language from other municipalities. The review was not exhaustive; recommendations should be evaluated with consideration for Dunellen's community context and needs.

The project team met with Dunellen officials November 9, 2022 to review the results of the community outreach, code review, and vulnerability profile and discuss recommendations for adopting a Complete & Green Streets Policy. A Draft Complete & Green Streets for All Policy, annotated to highlight the approach that is unique to Dunellen, is included as [Appendix B](#).

Prior Studies

In 2020, Dunellen worked with the CSTA Program to conduct a Walkable Community Workshop from High Street to Madison Avenue near Faber Elementary School¹. The Dunellen school district does not provide busing, so students are either driven to school or arrive on foot or bicycle. The workshop found that the walking route from North Avenue to the elementary school lacks appropriate pedestrian infrastructure, including sidewalks and crosswalks, to support students walking to and from school. Dunellen officials expressed interest in improving walkability along the route to encourage active transportation (such as walking and biking) to school and alleviate traffic congestion in the area. Improving pedestrian infrastructure would also help students in zero-car households arrive at school safely.

In 2019, Dunellen participated in the Together North Jersey Transit Hub Guide pilot program. Strategies developed from community feedback collected through the pilot include improving bicycle and pedestrian facilities in the area surrounding Dunellen's NJ TRANSIT train station, improving bicycle and pedestrian connections, and increasing opportunities for safe mid-block crossings throughout the Borough. In 2012, Dunellen was designated a Transit Village through the Transit Village Initiative, a partnership between NJDOT and NJ TRANSIT, which supports municipal efforts to redevelop and revitalize areas around transit stations. As part of this program, the Borough redeveloped a vacant printing facility on South Washington Avenue across from the train station into a mixed-use site with rental properties, townhomes, and shopping.

Concurrent Studies

During the development of the Complete & Green Streets Policy, Dunellen officials were also engaged in a Master Plan Reexamination and were developing an active transportation plan for the Borough supported by the NJ TRANSIT Transit Friendly Planning Program. Dunellen's 2022 Master Plan Re-examination is addressing topics relevant to the Complete & Green Streets Policy, including bicycle and pedestrian infrastructure, sustainable actions, transportation preferences, and the general needs of the community. The new plan was adopted on June 13, 2023.

The Transit Friendly Planning Program's Dunellen Active Transportation Planning Study provides the community design guidance and a conceptual bike facility plan that can be used to spur the development of an active transportation network. The Borough and their partners on all three planning efforts developed a community survey, which identified, among other findings, bicycle and pedestrian safety and flooding concerns. A community open house was held in September 2022 during which residents participated in visual preference survey exercises and gave feedback on all three planning efforts.

1. The report can be found at <https://www.njtpa.org/completestreets.aspx>

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 2). 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 2).

Regardless of the context, Complete 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 3 and Figure 4). 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 2. This Complete Street in New Brunswick, NJ, features a bicycle path, bus lane, and enhanced pedestrian crossing.

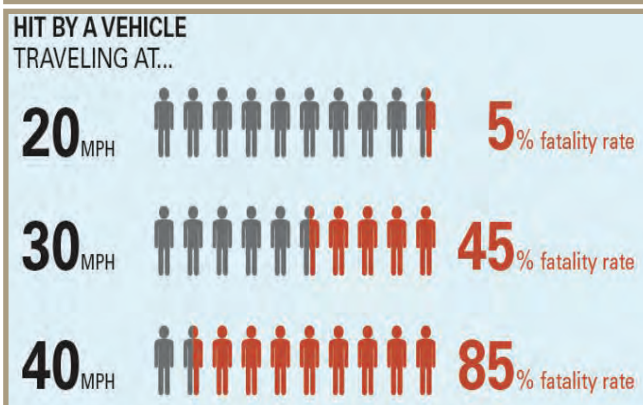


Figure 3. Graphic showing increased fatality rate as vehicle speeds increase. (USDOT)

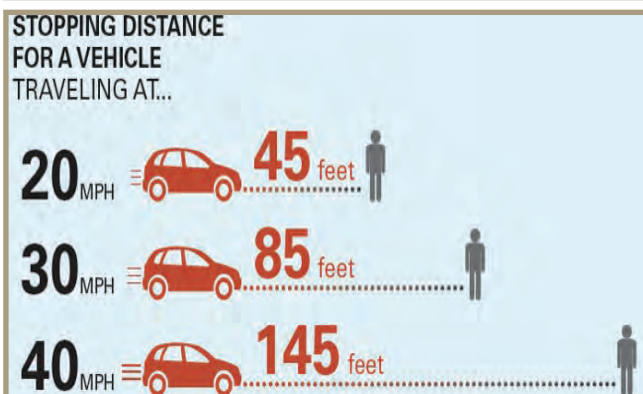


Figure 4. Graphic showing increased stopping distance as vehicle speeds increase. (USDOT)

Benefits of Complete & Green Streets

While the primary benefit of Complete 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 5). 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 5. 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 6). 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 6. 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 & Green 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.

New Jersey Complete & Green Streets for All: Model Policy and Guide

Since its adoption in 2009, NJDOT's Complete Streets policy has been recognized by the National Complete Streets Coalition as one of the strongest in the nation; in 2010 it ranked first among 210 state, regional, county, and municipal policies nationwide.

More recently, NJDOT collaborated with multiple government and nonprofit partners, including AARP-NJ, American Heart Association, Tri-State Transportation Campaign, Sustainable Jersey, Transportation Management Associations, the Bloustein School of Planning and Public Policy at Rutgers University, and many other organizations, to create a model policy and guide that counties and municipalities can adopt to address future transportation projects and advance their sustainability, equity, health, and safety goals (Figure 7).

The *Complete & Green Streets Model Policy and Guide* is a one-stop resource for New Jersey municipalities, counties, agencies, organizations, and advocates with an interest in implementing Complete Streets in their communities. The Guide is designed to assist anyone involved in developing or updating a policy. It features a state-of-the-art Model Complete & Green Streets Resolution and Policy that can either be adopted in full or tailored to meet the needs of municipalities, counties, agencies, and other organizations involved with transportation decision-making and implementation. NJDOT recognizes municipalities that have adopted Complete & Green Streets policies by giving them additional consideration when evaluating federal and most state grant funding applications.

Differences between a Resolution and an Ordinance

There are several ways a governing body can adopt a Complete & Green Streets policy. Typically, policies are adopted through a municipal resolution. Resolutions are official statements of support using typical "WHEREAS" statements. One way to strengthen resolutions is to include policy language that describes how the process and actions designed to ensure that Complete & Green Streets are routinely considered in all transportation decisions, often including checklists. Adopting an ordinance is the strongest way to ensure Complete & Green Streets will become an enforceable law. A Complete & Green Streets ordinance is adopted as part of searchable records of municipal laws.

Both resolutions and ordinances are issued by a legislative body, such as a municipal council or Board of County Commissioners. Jurisdictions should consider the advantages of passing Complete Streets ordinances. Regardless, all the elements of NJDOT's Model Resolution and Policy should be included.

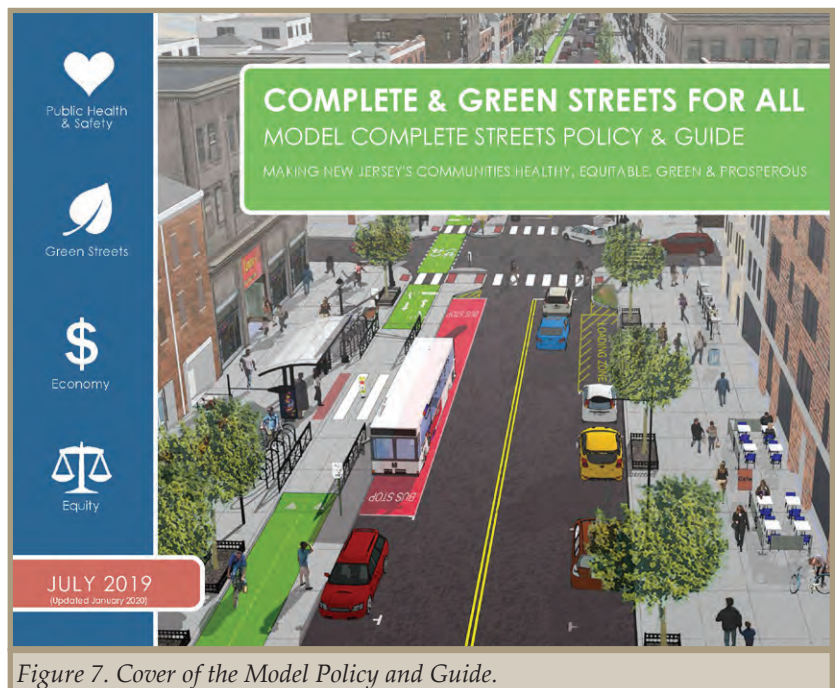


Figure 7. Cover of the Model Policy and Guide.

Reasons to Adopt an Ordinance

An ordinance is a law issued by a municipality that formalizes a policy by prescribing permanent and enforceable rules of process. With an ordinance, a municipality can examine how to better incorporate and revamp long-term, Complete & Green Streets into municipal decision-making. For example, an ordinance

can require community engagement processes, evaluation requirements, and conditions that developers and municipal planning and zoning boards need to follow to ensure opportunities for people walking, biking, and taking transit, and green stormwater infrastructure are considered as part of development applications and other road projects.

Complete & Green Streets and Sustainable Jersey

Sustainable Jersey is a nonprofit organization that offers a free and prestigious certification program to communities pursuing sustainable initiatives, including Complete & Green Streets. The Sustainable Jersey Complete & Green Streets Action is divided into three tiers. Municipalities can adopt a Complete & Green Streets policy in one of the three separate tiers. This distinction allows municipalities to adopt a policy tailored to their goals and capacities of commitment. Tier 1 includes the basic components of the NJDOT model policy. Tier 2 adds the adoption of checklists to review projects, the creation of an advisory committee, and the inclusion of public participation in the process. Tier 3 contains the elements of Tier 1 and 2, plus long-term provisions that help to ensure its success, like offsetting benchmarks and tracking progress through data collection. Table 1 describes the distinctions between Tiers 1, 2, and 3. Sustainable Jersey provides templates to assess their scope and evaluate with stakeholders which tier works best for the municipality, as found on their website.

EIGHT GOOD REASONS TO ADOPT A COMPLETE STREETS POLICY

1. Provide an equitable transportation system that serves all residents.
2. Reduce rates of injury and death from traffic crashes and improve road safety for all users.
3. Shift transportation investments to safer, better-functioning streets, gradually creating Complete Streets networks and saving money by reducing the need for costly retrofits.
4. Provide more transportation options and reduce traffic congestion, increasing transportation network capacity.
5. Improve air quality and reduce localized flooding by installing green stormwater infrastructure, street trees, and other vegetation.
6. Reduce rates of asthma and other respiratory issues by improving air quality through reduced traffic congestion and emissions.
7. Encourage walking and bicycling, healthy habits that reduce rates of chronic diseases such as diabetes, heart disease, cancer and stroke through increased physical activity.
8. Promote health equity by providing people who typically face significant barriers to better health with more opportunities to live healthier lives.

Table 1. Elements of the Tiers for the adoption of the Complete & Green Streets policy for Sustainable Jersey.

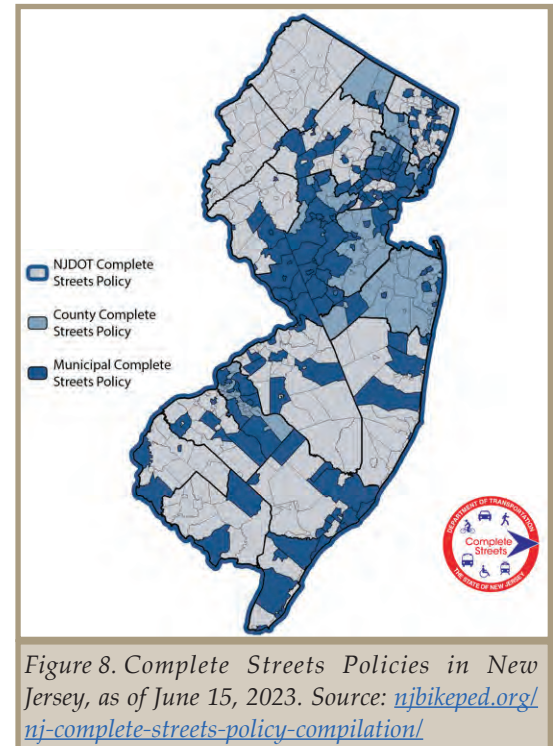
	Tier 1 (A Good policy)	Tier 2 (A Better policy)	Tier 3 (The Best policy)
C&G Streets Resolution	●	●	●
C&G Streets Policy			
Goals defined	●	●	●
Type of projects covered	●	●	●
Consistency with other Plans	●	●	●
Inventory and Audit within two years	●	●	●
State sustainable elements projects shall include	●	●	●
State pedestrian and bicycle elements projects shall include	●	●	●
State the use of the most current editions of guides, manuals, and best practices	●	●	●
State the municipality leadership implementing the policy	●	●	●
Define Exceptions	●	●	●
Effective Date	●	●	●
Statement of public participation		●	●
Adoption of Checklists for review of projects		●	●
Program Reporting and benchmarks			●

Adopting a Complete & Green Streets Policy

Why does Dunellen Need a Policy?

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 policy represents a commitment by a municipality to apply Complete Streets principles and goals to all transportation decisions. Instituting a Complete Streets policy means putting into place a process for routinely making transportation investments and decisions that address community context and the needs of users of all modes of transportation for ages and abilities.

The most successful policies state that Complete Streets practices and principles should be a standard part of regular roadway maintenance, planning, and design. Municipalities that adopt and institute comprehensive Complete & Green Streets policies or ordinances that include elements like public participation, checklists, an advisory committee, and program reporting will be well-prepared to ensure that Complete & Green Streets principles guide all transportation decisions both now and in the future. Having a Complete Streets policy earns a municipality extra consideration on certain state grant applications. Additionally, municipalities who are seeking Sustainable Jersey certification earn points for adopting and instituting a Complete Streets policy. A policy can be strengthened by enacting it as a municipal ordinance.



Vulnerable Populations Profile

An analysis of vulnerable populations is essential to the creation of Complete Streets that serve the entire community. As part of the development of a Complete & Green Streets policy, municipalities are encouraged to identify underserved or marginalized populations, also known as priority communities. A variety of tools may be used to assess factors such as lack of access to transportation, poverty, ethnicity, disabilities, age, language, and crowded housing, among other characteristics. All these tools combine widely available demographic data from sources like the U.S. Census into user-friendly maps and indices.

How to Use the Health and Equity Needs Assessment Analysis

Historically, transportation decision-making has prioritized the movement of cars, trucks, and other motorized vehicles. This has led to a transportation system that often lacks design features and facilities for all modes of transportation including walking and bicycling. Addressing inequity through fair and equitable distribution of transportation investments is a fundamental principle of Complete & Green Streets. Implementing Complete & Green Streets policies equitably can help communities achieve social equity objectives and mitigate disproportionate impacts of incomplete transportation networks on seniors, people with disabilities, households in poverty, and others who depend on walking and biking as their primary means of transportation.

The study team created a Vulnerable Populations Profile (Appendix A) with maps and data that identify geographic areas and/or populations with the greatest needs for Complete & Green Streets. The analysis can help communities, decision makers, and practitioners make choices that improve public health through community design. The goal is to use this assessment to consider how a proposed decision will affect the health of a population and whether vulnerable populations are more likely to be impacted, and then prioritize those locations for Complete & Green Streets infrastructure improvements.

In Dunellen:

- According to the NJDEP Environmental Justice Overburdened Communities map, 20 percent of Dunellen residents comprise the Low-Income population, 45 percent comprise the Minority population, and around 16 percent of Dunellen households are Limited English Proficiency. The Low-Income and Minority populations are concentrated in a southern section of the municipality.
- The ALICE mapping shows between 25 percent and 35 percent of the population is Asset Limited, Income Constrained, while Employed.
- Persons with disabilities comprise 9.6 percent of the population.

Below are some of the categories to consider when defining priority communities:

1. Minority Concentrations
2. Low-Income Concentrations
3. Other Indicators of Underserved and Adversely Impacted Populations:
 - Female Head of Household with Children
 - Persons with Limited English Proficiency
 - Carless Households
 - Elderly Populations/Children
 - Persons with Disabilities
 - Hispanic & Other Ethnic Minority Populations
 - Families in Poverty with Children
 - Other marginalized populations including LGBTQ+

Refer to [Appendix A: Vulnerable Populations Profile](#) for more.

Community Feedback and Interest in a Complete & Green Streets Policy

Visual Preference Survey-Board Findings: Public Engagement Dunellen

The Project Team attended a Dunellen public workshop on September 14, 2022 to engage with community members and discuss their concerns about pedestrian and bicycling safety and mobility in Dunellen, as well as the infrastructure improvements residents deem necessary to improve active transportation safety in areas close to parks and schools (Figure 9). More than fifty residents and stakeholders were present for the evening meeting, as well as three partner organizations, Rutgers-VTC, NJ TRANSIT, and DMR Architects. The engagement consisted of a presentation and seven poster boards that displayed the following questions:



Figure 9. Members of the public learning about Complete Streets.

- Where do you like to walk or bike in Dunellen?
- Where is it difficult or dangerous to walk or bike in Dunellen?
- Pedestrian Safety & Mobility: What are your biggest concerns?
- Pedestrian Facilities: What would you like to see more in Dunellen?
- Bicycle Safety & Mobility: What are your biggest concerns?
- Traffic Calming: What would you like to see more in Dunellen?
- Driver Behavior: What are your biggest concerns?

According to the joint online survey, approximately 3.9 percent of residents walk or rode their bike to work, while 23.8 percent chose walkability & bikeability as one of their top three priorities of the new master plan. Over 40 percent of residents chose walking or biking as their mode of travel around the borough.

Current Municipal Codes and Recommendations

As part of the effort to identify opportunity areas where the Borough of Dunellen can work to improve bicycle and pedestrian safety, the team scanned the municipal code for terms related to pedestrian and bicycle safety. The municipality can benefit from strengthening the current codes by updating or including language and specifications from other towns and best practices outlined by other agencies and organizations. This examination was not exhaustive and is not restrictive; it is just a sample of what can be addressed, and evaluations of the context and conditions specific to Dunellen should still be conducted. The team searched the following key words as part of the municipal code review:

- Complete & Green Streets
- Sidewalks
- Bicycle
- Vision Zero Action plan
- School Zones and Crossing Guards
- Curbs, Roads, and Parking
- Stormwater management
- Street lighting
- Bicycle and pedestrian education
- Snow removal
- Sidewalk cafés or Outdoor dining
- Micromobility
- Trails
- New developments
- Street furniture
- Committees, Task Forces, or Boards related to pedestrian and bicycle safety

Current Language and/or Issue(s)	Potential Action
<p>Ensure all streets are designed and operated with the safety, mobility, and accessibility needs of users of all ages and abilities. Provide a Complete & Green Streets checklist to developers to ensure compliance with policy.</p>	<p>Adopt a Complete & Green Streets policy that includes health, green streets, equity, implementation plans, accessibility, and a multi-modal network of streets, ensuring it meets requirements for Sustainable Jersey certification.</p>
<p>Sidewalks:</p> <ul style="list-style-type: none"> • (§ 115A-14) The municipal code establishes the developer’s responsibility to provide a walkway or sidewalk of four feet in width per standard Borough specifications. • (§ 2010-01) The owner or occupant is responsible for keeping the sidewalk and curb abutting free from obstructions or nuisances of every kind. • Obstacles or vehicles blocking the sidewalk needs to be addressed. • (§ 115A-19) Municipal ordinances for sidewalks do not meet ADA requirements. • (§ 115A-19) Vegetative or planted buffer between the sidewalk and the road are not addressed. This element is also part of stormwater management strategies. 	<p>Reference to the Americans with Disabilities Act (ADA) in the specifications. ADA standards require a minimum 5 ft clear path width to accommodate two wheelchairs passing each other. A planted buffer recommended of 2.5 feet. Review the Public Rights-of-Way Accessibility Guidelines (PROWAG) for new and existing sidewalks.</p> <p>The municipality could benefit from maintenance specifications to prevent sidewalk damage that can represent an obstacle for people with disabilities or micromobility devices. The ordinance could include safety and provisions when closing roads, bridges, and sidewalks during construction. See the Highland Park sidewalks and maintenance ordinances as an example.</p> <p>There are no specifications and sanctions for vehicles or objects blocking the sidewalks.</p> <p>Update ordinances to include Residential Site Improvement Standards (RSIS) sidewalk requirements for developments that meet certain conditions.</p>

Current Language and/or Issue(s)	Potential Action
<p>Bicycles:</p> <ul style="list-style-type: none"> Borough ordinances regarding lane dimensions, specifications, and safety measures do not mention bicycling facilities in the codes. Evaluate requirements and design standards for bicycle storage, including parking in multi-family developments, recreation or service areas. No mention of shower facilities in business complexes or retail areas. 	<p>Expand ordinances regarding bicycles. Include lane specifications, including minimum widths and safe practices.</p> <p>Encourage the implementation of bicycle lanes in new developments and resurfacing projects.</p> <p>Include in municipal code design standards for outdoor and indoor bicycle storage.</p> <p>Include requirements of changing/shower facilities in office parks and retail areas.</p> <p>See the Dunellen Downtown Redevelopment Plan bicycle for parking recommendations.</p>
<p>Pedestrian and bicyclist safety:</p> <ul style="list-style-type: none"> Pedestrian and bicyclist injuries involving motor vehicles. 	<p>Create and adopt a Vision Zero Action Plan, which outlines specific, data-driven steps to create a transportation system that prioritizes safety, efficiency, and accessibility to protect pedestrians and bicyclists on roads and intersections and reduce to zero traffic fatalities.</p>
<p>School Zones and Crossing Guards:</p> <ul style="list-style-type: none"> No mention of school zones with speed limits and safety countermeasures. No mention of crossing guards' duties, hiring process, training, and supervision. No mention of bicycle off-street parking on school properties. 	<p>Establish the need for crossing guards in school zones and encourage the use of safety countermeasures in these zones to improve the safety of school-age children, encourage walking, and use more sustainable transportation modes.</p> <p>Adopt a comprehensive Crossing Guard policy. See the model municipal school guard policy at https://www.njcrossingguards.org/model-municipal-crossing-guard-policy/.</p> <p>Evaluate off-street bicycle parking requirements and work with school districts to install bike racks at all schools.</p>
<p>Curbs (§ 115A-14):</p> <ul style="list-style-type: none"> Specifications according to the New Jersey State Highway Department Standard Specifications, 1962. 	<p>No mention of curb cutting and ramps to comply with ADA specifications. Review the Public Rights-of-Way Accessibility Guidelines (PROWAG) for new and existing curb ramps.</p> <p>Codes can include sanctions for vehicles blocking ramps.</p>
<p>Stormwater management (§ 253-4), updated June 2021:</p> <ul style="list-style-type: none"> Requires the use of green infrastructure in development project agreements. Part II General Legislation Chapter 253 Stormwater Management. Continue to install the NJDOT Bicycle Compatible proper grates as required by the Municipal Separate Storm Sewer System (MS4) permit which implements the NJDEP Municipal Stormwater Regulations. 	<p>Where possible, manage stormwater close to its source especially in redevelopment projects including the promotion of the use of road side planting strips and other green streets strategies such as stormwater tree pits.</p> <p>Apply for recently announced funding from NJDEP to better manage stormwater and meet the new Municipal Separate Storm Sewer System (MS4) permit requirements that became effective on January 1, 2023.</p>

Current Language and/or Issue(s)	Potential Action
<p>New Roads:</p> <ul style="list-style-type: none"> (§ 115A-14) Established to construct a paved roadway 30 feet wide or larger as required by the Board but did not mention allocating space for other transportation modes. (§ 115A-20) Implementation of a pedestrian crosswalk on any block longer than 1,000 ft. 	<p>Recommend allocating space for crosswalks or raised medians for new roads wider than three lanes.</p> <p>Implement safety countermeasures like pedestrian beacons, raised medians, and proper lighting at crosswalks.</p> <p>Allocated space for bicycle lanes can be included as part of any new project.</p>
<p>Parking (§ 269-7):</p> <ul style="list-style-type: none"> No mention of minimum parking distance from intersections or sanctions for vehicles blocking ramps, parking on corners, or crosswalks. No mention of improved design standards like curb extensions. Lack of information about pedestrian and bicyclist safety. 	<p>Recommend curb extensions to improve the visibility of pedestrians crossing the street.</p> <p>Specify sanctions for any parked vehicle at a certain distance from the street corner, blocking the curb cutting/ramps, or obstructing crosswalks.</p> <p>Include language about pedestrian and bicycle access and safety.</p> <p>Reducing the number of parking requirements to start encouraging developments that support more sustainable transportation modes. This can be achieved by adopting the Complete & Green Streets policy.</p>
<p>Street Lighting (§ 115A-14):</p> <ul style="list-style-type: none"> Required by the local ordinance or the Board, but there is no mention of proper lighting on crosswalks to increase pedestrian visibility. 	<p>Include streetlights in the local ordinances, especially those located at crosswalks. The municipality could benefit from updating the technology used for street lighting to be more sustainable, like LED.</p>
<p>Bicycle and pedestrian education:</p> <ul style="list-style-type: none"> Opportunities to enhance local knowledge. 	<p>Staff and municipal engineering consultants should attend training that covers Complete Streets, traffic calming, trails, bicycle & pedestrian infrastructure, ADA standards, green infrastructure, and FHWA Proven Safety Countermeasures.</p>
<p>Snow removal (§ 256-1):</p> <ul style="list-style-type: none"> Dunellen has a good snow removal policy, updated in 2021, which includes language about clearing space around fire hydrants and clearing curb ramps within 24 hours of snowfall. 	<p>The policy can prioritize municipal snow removal for school crossings, routes, and areas with higher pedestrian and bicycle traffic.</p>
<p>Sidewalk cafés or outdoor dining (§ 237-8):</p> <ul style="list-style-type: none"> Dunellen has a good sidewalk cafés policy where it prioritizes pedestrian traffic and establishes an unobstructed pedestrian passageway. 	<p>Facilitate outdoor dining to promote diversity of business and street dynamics.</p> <p>Follow NACTO guides for minimum distances and safety measures. Evaluate additional infrastructure to protect customers, like establishing “dining street” zones.</p>

Current Language and/or Issue(s)	Potential Action
<p>Micromobility (e-bikes/e-scooters):</p> <ul style="list-style-type: none"> No mention of local rules to operate e-bikes, e-scooters, or electric skateboards, like specific zones, riding on sidewalks, etc. No mention of local rules to establish parking zones, not obstructing sidewalks, and sanctions. No mention of local guidelines to establish shared devices. 	<p>Adopt an ordinance that includes language to guarantee rights and duties like following traffic control devices, speed limit, age restrictions, riding restricted zones, carrying articles or more than one person, and parking.</p> <p>Include in the ordinance the right to ride on sidewalks and roads with no bicycle lane available.</p> <p>Expand the ordinance on shared devices without limiting the ability to adapt to new trends and innovate.</p> <p>Review ordinance about electric scooter operation and parking in Hoboken: https://njbikeped.org/wp-content/uploads/2022/07/City-of-Hoboken-NJ-Ecode360-Electric-Scooters.pdf</p>
<p>Trails:</p> <ul style="list-style-type: none"> Municipal ordinances do not address trails specifically. The Borough does not address overall trail network connectivity. 	<p>Adopt an ordinance about trails that addresses connectivity between buildings and recreational facilities with open space in planned developments. Policy can also address maintenance and access.</p>
<p>New developments:</p> <ul style="list-style-type: none"> The Traffic Impact Assessment is not mentioned as part of the requirements in new proposed developments. 	<p>Among many other factors, the assessment should include representative traffic counts of vehicles, bicycles, and pedestrians (See example: Jersey City traffic impact assessment ordinance)</p>
<p>Street furniture</p> <ul style="list-style-type: none"> (§ 159-16) Municipal code addresses street obstructions as obstacles that block or obstruct vehicular traffic. Dunellen Downtown Redevelopment Plan (amended February 2022) has streetscape requirements, including benches, planters, and bicycle racks. 	<p>Ensure that the recommendations in the Redevelopment Plan are incorporated.</p>
<p>Mayor’s Traffic and Pedestrian Task Force.</p> <ul style="list-style-type: none"> The Mayor’s Traffic and Pedestrian Task Force seeks to educate the public on traffic and pedestrian safety and advises the Mayor and Council on the Complete Streets program. 	<p>Enact through an ordinance the Mayor’s Traffic and Pedestrian Task Force establishing their functions and duties, providing input and recommendations regarding pedestrian safety and extending it into bicycle safety in new projects.</p> <p>Work with the Technical Review Committee and the Shade Tree Commission to provide input into the general design of projects considering bicycle and pedestrian safety and preserving the quality of life of the residents of the Borough. Committee can aid in reviewing Complete & Green Streets checklists and benchmark tracking.</p>

Next Steps to Create a Complete Streets Policy

Option 1: Adopt a Resolution with Policy

Municipalities and counties are encouraged to adopt their Complete & Green Streets policy as a resolution or as an ordinance following the NJDOT Complete & Green Streets Model Policy and Guide. Municipal councils are encouraged to adopt the Model Complete & Green Street Resolution and the Model Policy with Checklists. The Model Resolution as written assumes that a policy document will be adopted that outlines the specific actions that will be taken to implement Complete & Green Streets. The Resolution includes “WHEREAS” statements that set expectations and outlines the steps to achieve compliance. The actual policy can be a separate document or included as an attachment to the Resolution. The Model Policy describes how adopting the Resolution will change the way transportation decisions are made to include consideration of all modes.

Option 2: Adopt an Ordinance

Adoption of a Complete & Green Streets Ordinance can further codify a policy. Although an ordinance may require a lengthier and more involved process than a resolution, municipalities and counties are encouraged to consider passing Complete & Green Streets ordinances. Not only are they enforceable by law, but ordinances also ensure that subsequent administrations will continue to follow the Complete & Green Streets procedures.

Municipalities that want to adopt an ordinance as a new section of their municipal code must address the following:

1. Title and Numbering: A distinguished title and numbering to be legally cited.
2. Ordination Clause: Where the document’s language is adopted as an ordinance.
3. Purpose: State why it is needed and adopted, addressing the five goals: safety, environment, economics, health, and equity.
 - Definitions: Define the key terms within the ordinance that are not already part of the land use code.
 - Standards:
 - Add specific details to implement and enforce the ordinance.
 - Describe the scope, reach, and person or committee responsible for implementation and exemptions.
 - Define public participation and stakeholders.
 - Identify benchmarks and program reporting.
4. Applicability: Describe precisely “who” and “what” the ordinance will govern and the process for granting exceptions.
5. Submittal: Sets out the information and plans required when proposing a project or development covered by the ordinance.
6. Fees and Penalties: State the fees required of applicants and penalties resulting from a violation of the ordinance.
 - Procedural Requirements: Follow the state requirements when adopting the ordinance, like open public meetings, first reading, public hearings, publishing, etc.

For a more detailed description of each section, please review the NJDOT [Complete & Green Streets for All Model Policy](#) and the Complete Streets Ordinance Structure Guidance document found in the [Sustainable Jersey Complete & Green Streets for All Policy Action](#) description (Figure 12).

In the case that municipalities revise an existing section of the municipal code or plan to modify an existing ordinance for Complete & Green Streets, they will need to make sure the modifications address the required components previously listed and comply with the details found in the guidance [Complete & Green Streets for All Model Policy](#). Additionally, it is recommended that municipalities state the amended code section clearly and remove any language found in other sections, resolutions, or guidance documents that conflict with the new section.

COMPLETE & GREEN STREETS FOR ALL ORDINANCE STRUCTURE

Why is an ordinance important?

An ordinance — the laws issued by a municipality — formalizes a policy by prescribing **permanent and enforceable** rules of process.

With an ordinance, a municipality can examine how to better incorporate and revamp, long-term, Complete and Green Streets into municipal decision-making. For example, an ordinance can require community engagement processes, evaluation requirements as well as conditions that developers, municipal planning and zoning boards all need to follow to ensure opportunities for people walking, biking, taking transit, and green stormwater infrastructure are considered as part of development applications and other road projects.



TITLE AND NUMBERING

Create a legal name by which the ordinance can be cited as well as a number.



DEFINITIONS

Define key terms used within the ordinance that are not already part of the land use code of the municipality.



PURPOSE

Provide a purpose which addresses the 5 goals: environment, safety, economic, health and equity.



ORDINATION CLAUSE

Develop the clause using "Be it ordained by the (municipal governing body) of the (municipality) that the (governing body) adopts the ..."



STANDARDS

Set clear standards, including how and when existing plans, policies and procedures will be updated as well as what guidance will be used in developing a Complete Streets approach.

(e.g. formation of an advisory committee and establishment of benchmarks)



APPLICABILITY

Describe precisely "who" and "what" the ordinance will govern and the process for granting exceptions.



SUBMITTAL

Set out the information and plans required when proposing a project or development covered by the ordinance. (e.g. use of checks)



CONGRATULATIONS!

You have a Complete and Green Streets ordinance!



PROCEDURAL REQUIREMENTS

The municipal governing body will need to follow specific requirements and timetables when adopting an ordinance.



FEES AND PENALTIES

Include as a general condition of Land Use Regulations, or each ordinance should specify: any Fees required of applicants as well as penalties that may result from the violation of an ordinance.

Figure 12. Complete Streets Ordinance Structure guide.

Recommendations and Next Steps

In January 2023, Dunellen was awarded a federal USDOT grant for Safe Streets and Roads for All (SS4A). This grant funds a new [Safety Action Plan](#) for Dunellen which includes a leadership commitment and goal setting for zero roadway fatalities and serious injuries. In addition, the funding requires a task force to oversee plan development, implementation, and monitoring.

The Dunellen Safety Action Plan will identify a comprehensive set of projects and strategies to address safety problems. Complete & Green Streets concepts and measures will be a critical component of this Plan. The following recommendations can tie directly into the new SS4A Action Plan.

1. Adopt a Complete & Green Streets resolution and/or ordinance: Work with Dunellen's Mayor, Council, and members of the Mayor's Traffic and Pedestrian Task Force to adopt the full NJDOT Complete & Green Streets model policy (presented as an appendix to this report). The policy includes areas customized to reflect Dunellen's needs and unique context and a zero roadway fatalities and serious injuries statement.
2. Adopt an ordinance to establish the Mayor's Traffic and Pedestrian Task Force more formally. A Task Force is a requirement of the SS4A Safety Action Plan. The following procedures can be established as duties of the Task Force:
 - Establish a process that requires developers to complete adopted Complete & Green Streets checklists as part of submitting applications for approval by the municipal planning board.
 - Provide policy checklists review and feedback.
 - Monitor implementation of projects and programs.
 - Provide review and input on any exceptions or exemptions to the policy.
 - Complete a policy, projects, and strategies audit that includes a review of all the municipal policies, plans, guidance documents, training programs, and performance measures that need to be updated to conform to the Complete & Green Streets policy. Once identified, prioritize the list of projects and strategies with time ranges for when the strategies and countermeasures will be deployed (e.g., short-, mid-, and long-term). This is also requirement of the SS4A Action plan.
 - Identify policy benchmarks and establish a process for tracking and progress reports.
 - Explore updating ordinances (see the Current Municipal Codes & Recommendations section of this report), subdivision, and site plan review policies and procedures to support implementation of Complete & Green Streets.
 - Review and update Dunellen's Vulnerable Populations Profile, as needed.
 - Pursue grant opportunities.
3. Attend Complete Streets and/or Green Streets/Green Infrastructure Trainings offered by NJDOT, Jersey Water Works, or other organizations. Offer committee members and on-call professionals to attend or share post-training follow-up lessons. Attend biennial NJDOT Complete Streets Summits.
4. Strengthen partnerships for policy implementation including:
 - Connect health and transportation sectors and decision-making within Dunellen.
 - Participate in the Middlesex County Vision Zero Task Force.
 - Work with Keep Middlesex Moving TMA on Complete & Green Streets implementation including related educational projects and initiatives.
 - Consult NJTPA on grant funding and other opportunities for implementation.
5. Apply for Sustainable Jersey points. Interested municipalities can use adopted resolutions or ordinances to qualify for up to 30 Sustainable Jersey points under the Complete & Green Streets for all action. The demographic, health, and equity profile analysis is the first part of the Sustainable Jersey – Community, Equity, and Diversity Profile Action.
6. Continue to explore funding opportunities through NJDOT, NJTPA, USDOT, and other agencies and foundations.



Appendix

- A. Vulnerable Populations Profile**
- B. Dunellen Complete & Green Streets Policy**
- C. Community Feedback Board Survey**
- D. Potential Funding Resources**
- E. Guidance Documents**

A. Vulnerable Populations Profile

An analysis of vulnerable populations is essential to the creation of Complete Streets that serve the entire community. As part of the development of a Complete & Green Streets policy, municipalities are encouraged to identify underserved or marginalized populations, also known as priority communities. A variety of tools may be used to assess factors such as lack of access to transportation, poverty, ethnicity, disabilities, age, language, and crowded housing, among other characteristics. All these tools combine widely available demographic data from sources like the U.S. Census into user-friendly maps and indices.

NJTPA Equity Analysis Tool

An equity analysis helps planners and partner stakeholders assess the adverse effects that plans, programs, or projects can have on underserved communities. The [Equity Analysis Tool](#) is an easy-access tool that helps to integrate equity in transportation planning, identifying where these populations are located within a region, county, or community.

The tool identifies and analyzes 11 factors: Minority, Low Income, Limited English Proficiency, Disability, Youth, Adolescents, Elderly population, Foreign-Born, Female Population, and optional factors like Zero-Vehicle Households and Educational Attainment.

The data shown in the map displays the composite score of the municipality (Figure 13). Each factor is evaluated and given a score depending on where they stand in the following five categories:

- Very Below Average – 0
- Below Average – 1
- Average – 2
- Above Average – 3
- Very Above Average – 4

The composite score is the sum of each factor score, with a maximum score of 44. A higher score reflects areas with more need. Using the Equity Analysis Tool, Dunellen’s composite score is between 19-22, which could be considered average. For the individual factors, Dunellen scored average in 7 of the 11 factors: Limited English Proficiency, Minority, Low Income, Adolescents, Elderly, Foreign Born, and Educational Attainment. Dunellen only scored above average in the youth population or population under 5 years.

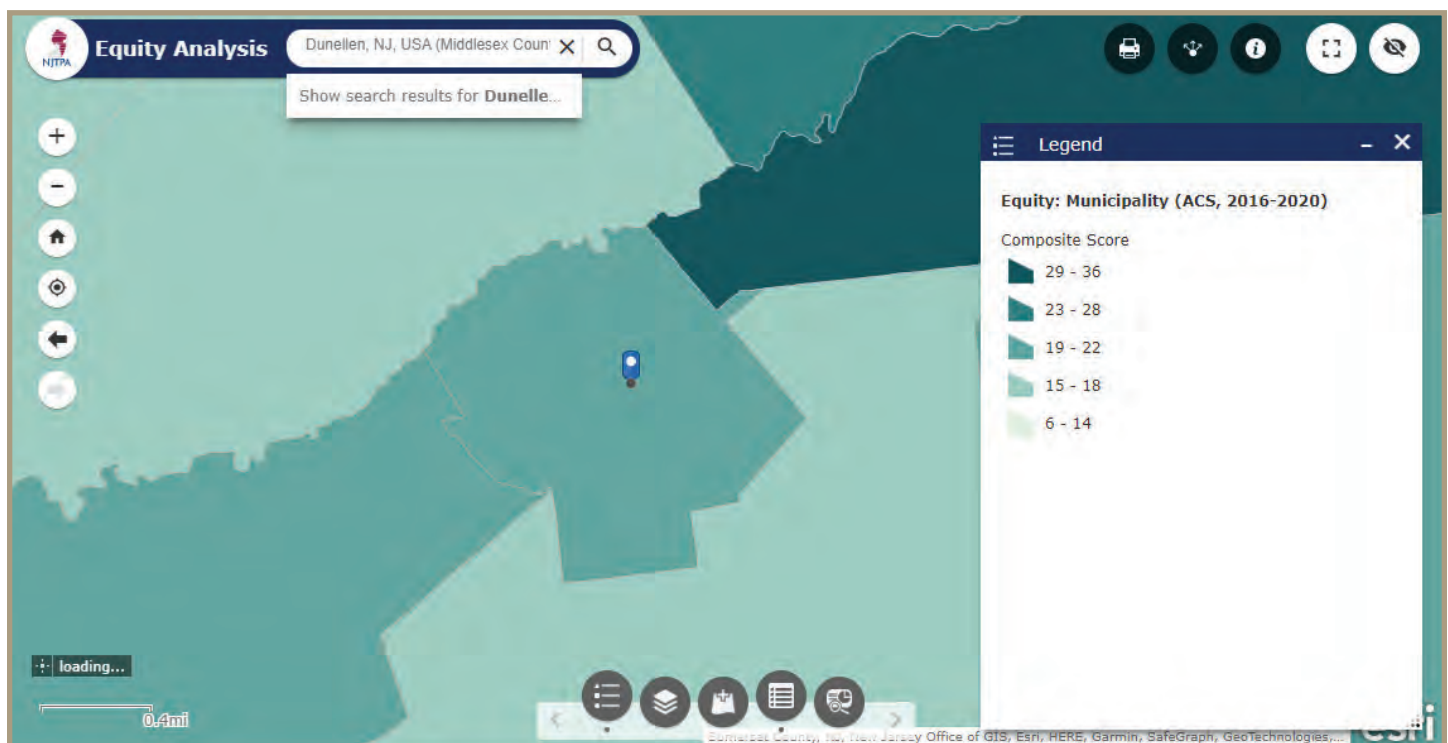


Figure 13. Dunellen Equity Analysis Map Using [NJTPA Equity Analysis Tool](#).

United Way ALICE populations

ALICE, which stands for Asset Limited, Income Constrained, Employed, identifies the population whose jobs allow them to earn above the Federal Poverty Level but are still unable to meet their basic housing, food, health care, childcare, and transportation necessities to support their families. According to the map, between 25 percent and 35 percent of the population in the Borough of Dunellen are ALICE (Figure 14).

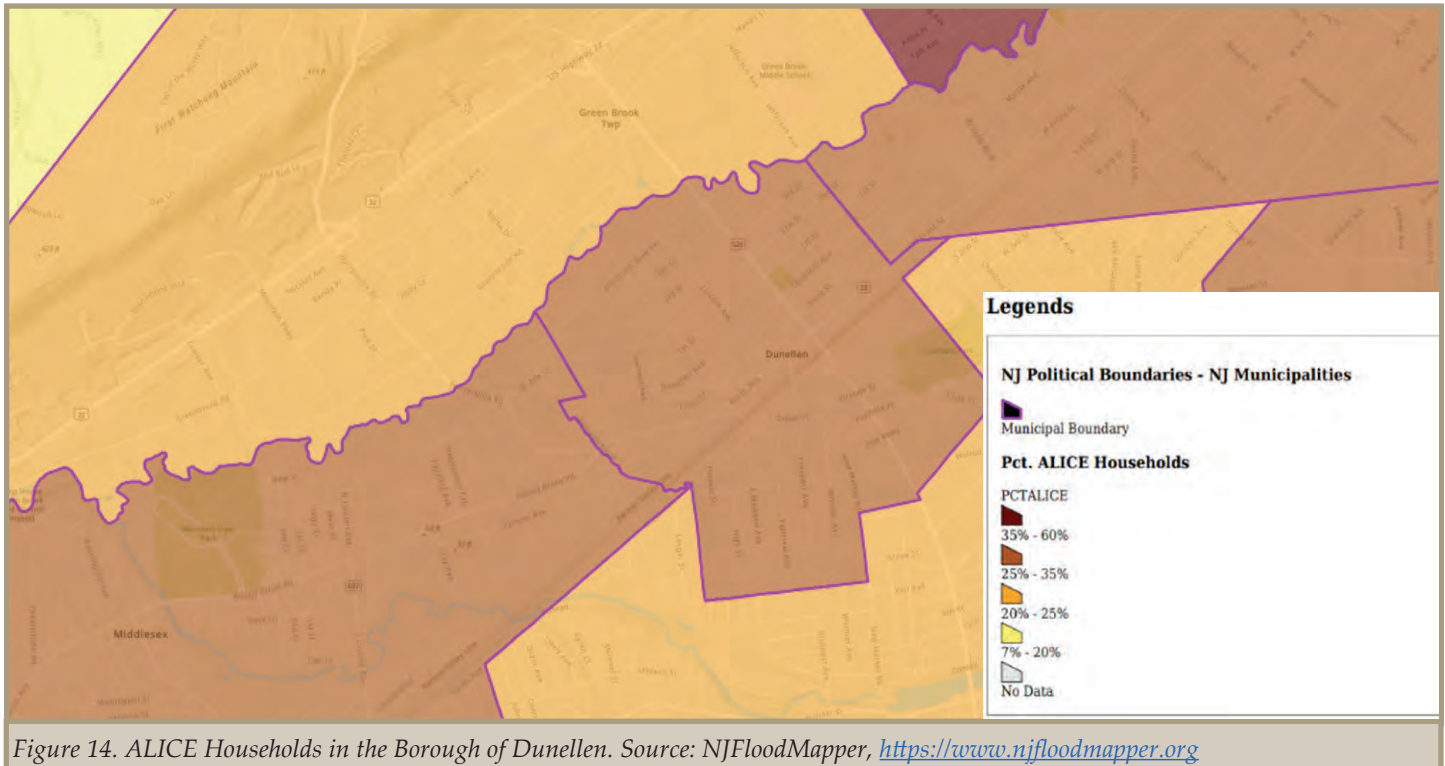


Figure 14. ALICE Households in the Borough of Dunellen. Source: NJFloodMapper, <https://www.njfloodmapper.org>

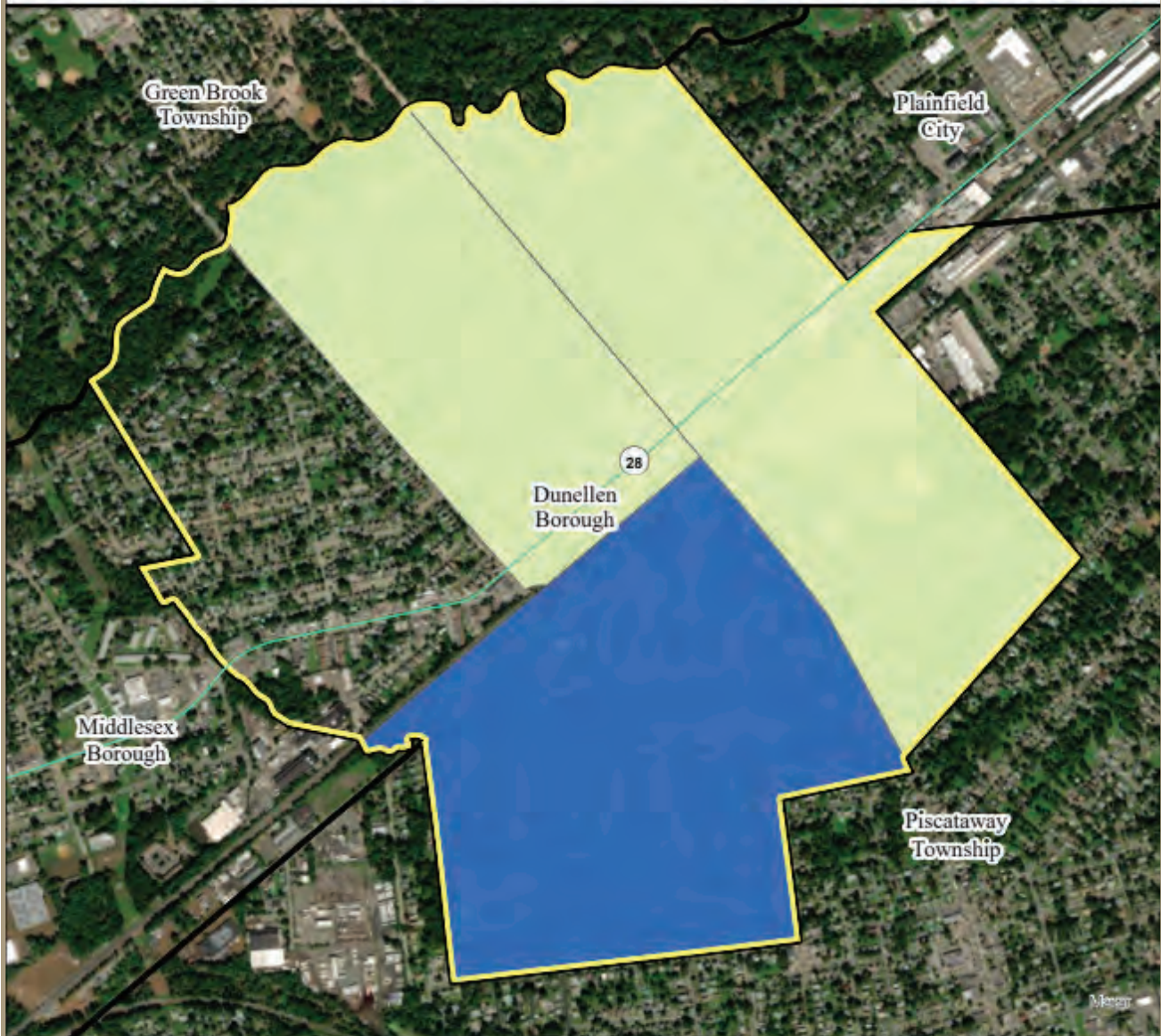
NJDEP Environmental Justice Overburdened Communities

The New Jersey Department of Environmental Protection (NJDEP) identifies an Overburdened Community as any population potentially in need of environmental justice. More specifically, as any census block group, as determined in accordance with the most recent United States Census, in which:

1. At least 35 percent of the households qualify as low-income households (at or below twice the poverty threshold as determined by the United States Census Bureau).
2. At least 40 percent of the residents identify as minority or as members of a State recognized tribal community; or
3. At least 40 percent of the households have limited English proficiency (without an adult that speaks English “very well” according to the United States Census Bureau).

According to the [NJDEP tool](#), in the Borough of Dunellen, Low-Income and Minority communities are the two main Overburdened Communities under the New Jersey Environmental Justice Law. Overall, 21 percent of Dunellen residents comprise the Low-Income population, 56 percent comprise the Minority population, and around 17 percent are households with Limited English Proficiency (Figure 15).

Overburdened Communities under the New Jersey Environmental Justice Law in Dunellen Borough, Middlesex County



An overburdened community is any census block group, as determined in accordance with the most recent United States Census, in which: (1) at least 35 percent of the households qualify as low-income households; (2) at least 40 percent of the residents identify as minority or as members of a State recognized tribal community; or (3) at least 40 percent of the households have limited English proficiency. Census block groups with zero population and located immediately adjacent to an OBC are labeled as "adjacent." Existing or proposed facilities located in adjacent block groups may be required to conduct further analysis in accordance with the Environmental Justice Rules (<https://www.nj.gov/dep/rules/proposals/proposal-20220606a.pdf>).

Disclaimer: The boundary information in the TIGER/Line Shapefiles used for the maps are for statistical data collection and tabulation purposes only; their depiction and designation does not constitute a determination of jurisdictional authority or rights of ownership or entitlement and they are not legal land descriptions.

Municipalities	Toll Road
Dunellen Borough	Interstate
Overburdened Community Criteria	
Adjacent	US Highway
Limited English	State Highway
Low Income	NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
Low Income and Limited English	
Low Income and Minority	Date: 6/1/2022
Low Income, Minority, and Limited English	
Minority	
Minority and Limited English	0 0.07 0.15 Miles

Figure 15. Overburdened Communities (2020) in the Borough of Dunellen. Source: NJDEP, <https://dep.nj.gov/ej/communities/>

CDC's Social Vulnerability Index (SVI)

CDC's Social Vulnerability Index (SVI) gathers data to identify the census tracts that will most likely need financial, shelter, emergency personnel, and evacuation support before, during, and after a disaster. The SVI considers 15 factors in its evaluation of vulnerable communities, including:

- Socio-Economic: population below poverty, unemployed, no high school diploma.
- Household Composition and disability: population aged 65 or older, 17 or younger, older than 5 with a disability, single-parent household.
- Race/Ethnicity/Language: minorities, persons with limited English proficiency.

The scale represented is divided into quartiles ranging from the least vulnerable to the most vulnerable. The Borough of Dunellen is considered in the top two quartiles of the Social Vulnerability Index, as shown in Figure 16. This means Dunellen is considered a municipality likely to need support before, during, and after a hazardous event.

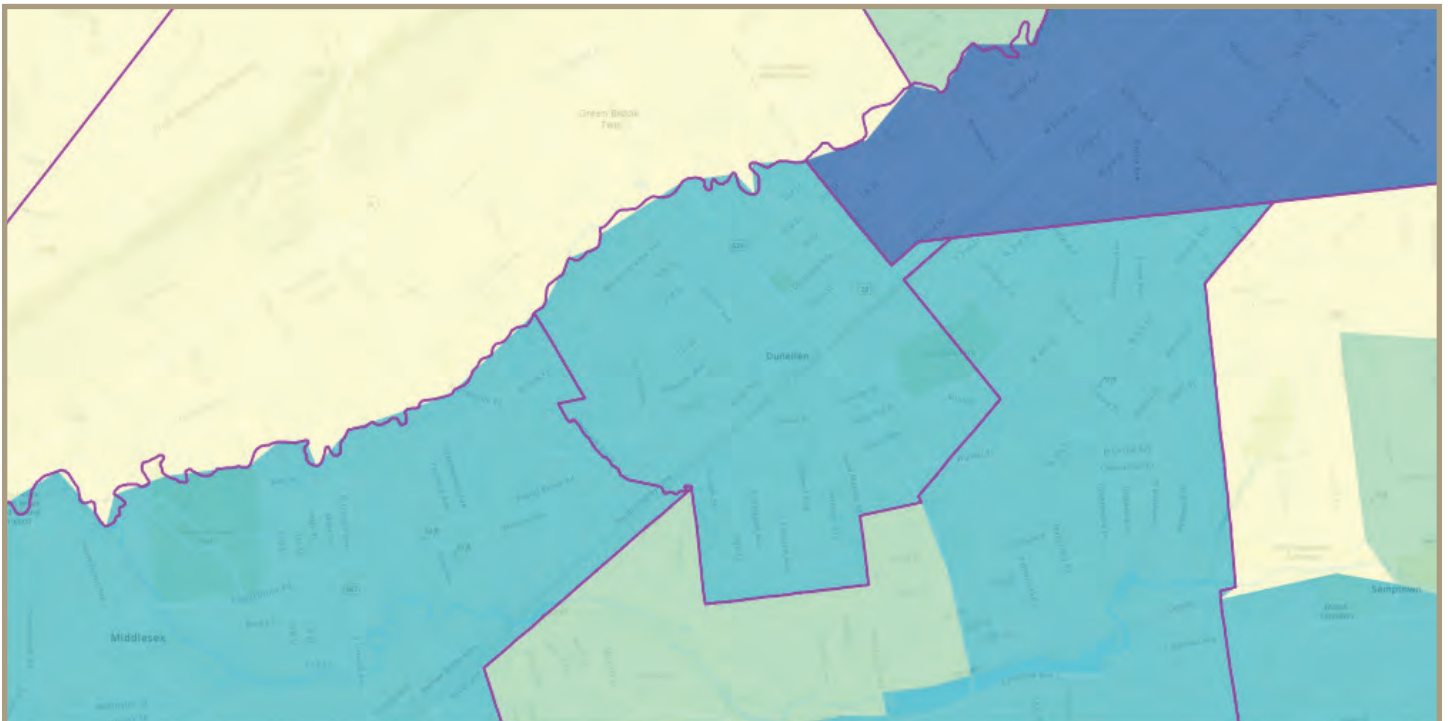


Figure 16. CDC Social Vulnerability Index in the Borough of Dunellen. Source: NJFloodMapperr

Demographic Profile Report from the NJ Adapt/NJ Flood Mapper

Dunellen has a total estimated population of 7,580 and a median income of \$40,170 in 2021. The working-age population is estimated at 4,728, with 1,892 minors and 960 seniors. There was an estimated population of 285 working-age Borough residents who were below the federal poverty level at some point in the 12 months prior to the calculation of the estimates. With a land area of just over one square mile (1.06 square miles), Dunellen has a population density of 7,150 persons per square mile.

Table 2. Total Population Comparison for the Borough of Dunellen.

	Borough of Dunellen*		Middlesex County*		New Jersey*	
Total Population	7,580		851,235		9,129,337	
Female Population	3,312	44%	430,593	51%	4,661,486	51%
Male Population	4,268	56%	420,642	49%	4,467,851	49%
Age Under 18 Population	1,892	25%	187,669	22%	2,035,928	22%
Age 18-64 Population	4,728	62%	536,420	63%	5,635,790	62%
Age Over 65 Population	960	13%	127,146	15%	1,457,619	16%
Population Below Poverty Level in Past 12 Months (20-64 Years Old)	285	4%	35,986	4%	459,031	5%
Median Earnings in Past 12 Months	\$40,170		\$50,504		\$47,499	

Source: NJFloodMapper. Data retrieved: 02-21-2023. Data last updated: 12-13-2022. *Percentage compared with total population

Disability Demographics

There is an estimated population of 728 Dunellen residents with a disability, of which 459 are of working age. There is an estimate of 42 children with disabilities and 227 seniors who self-identified as having a disability in the Borough. Persons with disabilities comprise 9.6 percent of the population of the Borough.

Table 3. Population with Disability Comparison for the Borough of Dunellen.

	Borough of Dunellen*		Middlesex County*		New Jersey*	
Total Population with Disability	728	9.6%	81,543	9.6%	946,687	10.4%
Female Population with Disability	438	5.8%	44,447	5.2%	505,891	5.5%
Male Population with Disability	290	3.8%	37,096	4.4%	440,796	4.8%
Age Under 18 Population	42	0.6%	7,146	0.8%	71,383	0.8%
Age 18-64 Population	459	6.1%	36,026	4.2%	438,435	4.8%
Age Over 65 Population	227	3.0%	38,371	4.5%	436,869	4.8%

Source: NJFloodMapper. Data retrieved: 02-21-2023. Data last updated: 12-13-2022. *Percentage when comparing with total population

Population with Disability Income-Related Demographics

Dunellen is estimated to house 74 residents who have a disability and are or have been below the federal poverty level in the last 12 months. However, the estimates show that there are no disabled residents who are unemployed.

Table 4. Population with Disability Income-related Demographic Comparison for the Borough of Dunellen.

	Borough of Dunellen*		Middlesex County*		New Jersey*	
Population Below Poverty Level in Past 12 Months (20-64 Years Old) with Disability	74	10.2%	5,787	7.1%	88,604	9.4%
Population Below Poverty Level in Past 12 Months and Unemployed with Disability	0	0.0%	341	0.4%	8,496	0.9%
Population At or Above Poverty Level in Past 12 Months and Unemployed with Disability	0	0.0%	1,521	1.9%	16,869	1.8%
Median Earnings in Past 12 Months for Population with Disability	\$41,585		\$35,347		\$31,267	

Source: NJFloodMapper. Data retrieved: 02-21-2023. Data last updated: 12-13-2022. *Percentage when comparing with population with Disability

Population with Disability by Type

Of the population of the Borough with a disability, 544 people reported having a mobility difficulty, and 314 residents reported having a disability that makes them unable to live independently. Additionally, there were an estimated 304 residents reported to have cognitive difficulty and 148 residents with vision disability. The types of disabilities represented in the Borough are important for the adoption of Complete Streets measures since residents with disabilities should be accommodated.

Table 5. Population with Disability by Type Comparison for the Borough of Dunellen.

	Borough of Dunellen*		Middlesex County*		New Jersey*	
Ambulatory Difficulty	544	74.7%	43,133	52.9%	490,836	51.8%
Hearing Difficulty	96	13.2%	17,844	21.9%	233,019	24.6%
Cognitive Difficulty	304	41.8%	30,565	37.5%	343,678	36.3%
Vision Difficulty	148	20.3%	13,325	16.3%	177,088	18.7%
Independent Living Disability	314	43.1%	33,254	40.8%	361,115	38.1%
Self-Care Difficulty	229	31.5%	19,353	23.7%	202,444	21.4%

Source: NJFloodMapper. Data retrieved: 02-21-2023. Data last updated: 12-13-2022. *Percentage when comparing with population with Disability

B. Dunellen Complete & Green Streets Policy

Complete & Green Streets for All:

A Resolution of the Borough of Dunellen

A RESOLUTION OF THE **BOROUGH OF DUNELLEN** ESTABLISHING AND ADOPTING A COMPLETE AND GREEN STREETS POLICY

Resolution No. _____

WHEREAS, safe, convenient, accessible, equitable, healthy, and environmentally and economically beneficial transportation for all users is a priority of **Borough of Dunellen**; and

WHEREAS, Complete and Green Streets is a means to provide a comprehensive, integrated, connected multi-modal network of transportation options through planning, design, construction, maintenance, and operation of new and retrofit transportation facilities along the entire right-of-way for all roadway users of all ages and abilities; and

WHEREAS, Complete and Green Streets allow for safe, accessible, and convenient travel, reducing serious injuries and fatalities for all users of the roadway; and

WHEREAS, “all users” include motorists, bicyclists, pedestrians, public transportation vehicles and their passengers, delivery trucks and movers of commercial goods, persons with disabilities, older adults, and residents of Priority Communities; and

WHEREAS, Complete and Green Streets allow for multiple modes of travel, aside from personal automobiles, so that those who are unable to drive, who cannot afford a car, or choose to reduce their car usage may travel by transit, by bicycle, or on foot safely; and

WHEREAS, Complete and Green Street policies support the goals of the **Borough of Dunellen** master plan and supporting elements; and

WHEREAS, New Jersey is federally designated as a Pedestrian and Bicycle Safety Focus State due to high numbers of pedestrian/bicycle-involved fatalities, and New Jersey’s pedestrian fatality rate continues to significantly exceed the national average; and

WHEREAS, traffic crashes are preventable and the only acceptable number of traffic deaths for **Borough of Dunellen** is zero; and

WHEREAS, Complete Streets that incorporate sustainable Green Streets design elements, such as green stormwater infrastructure, traffic calming treatments, shade trees, and the use of recycled materials, protect and create a healthier natural and social environment, improve air and water quality, and reduce localized flooding; and

WHEREAS, Complete and Green Streets implementation enhances access to local businesses, encourages reinvestment, increases property values and employment, and stimulates private investment, especially in retail districts, downtowns, and tourist areas; and

WHEREAS, Complete and Green Streets encourage an active lifestyle through increased physical activity, social connectivity, and sense of community belonging, thereby lowering risk of obesity, reducing chronic disease, improving mental health, and promoting wellness; and

WHEREAS, Complete and Green Streets implementation provides the opportunity to enhance the historic character of our communities and our understanding of our shared history in a way that promotes the economic and social vitality of our communities and should be considered in the design of infrastructure improvements; and

WHEREAS, procedures should be implemented that ensure fair treatment, equitable funding and resource distribution, and meaningful involvement of all communities in all phases from selection, planning, and design to construction and long-term maintenance; and

WHEREAS, a balanced and flexible transportation system where all people can easily and safely walk and bicycle to everyday destinations — such as schools, shops, restaurants, businesses, parks, transit, and jobs — enhances neighborhood economic vitality and livability; and

WHEREAS, low- and moderate-income areas, whether in rural, urban, or suburban communities, are typically the least safe for pedestrians and bicyclists, especially for children walking and biking to school, due to long-standing infrastructure disparities and higher concentration of streets with faster-moving and higher-volume traffic; and

WHEREAS, implementation of the Complete and Green Streets policy should not negatively impact the affordability of the neighborhood for current residents; and

WHEREAS, the Complete and Green Streets policy applies to new, reconstruction, retrofit, and resurfacing projects, including design, planning, construction, maintenance and operations, for the entire right-of-way; and

WHEREAS requests for all exceptions must be submitted in writing, with supporting documentation, and made publicly available with a minimum of 30 days allowed for public input; and

WHEREAS, all initial planning, concept and design studies of infrastructure projects consider design elements that improve public health, environment, economy, equity, and safety.

NOW THEREFORE, BE IT RESOLVED, the **Borough of Dunellen** adopts the Complete and Green Streets Policy attached hereto, and made part of this Resolution;

BE IT FURTHER RESOLVED, that copies of this Resolution shall be forwarded to all **Borough of Dunellen** departments within thirty (30) days of the adoption of this Resolution.

Attached Hereto:

Borough of Dunellen Complete and Green Streets Policy

The Borough of Dunellen shall develop an integrated and connected multimodal transportation system of Complete and Green Streets that serve all neighborhoods and populations. Towards this end:

1. All transportation projects shall result in Complete and Green Streets that allow safe, environmentally healthy, economically sound, equitable, accessible, and convenient travel along and across streets for users of all ages and abilities and for all modes of transportation, including motorists, bicyclists, pedestrians, public transportation vehicles and their passengers, delivery trucks and movers of commercial goods and strive to meet the following goals:
 - a. Environment: Improve air and water quality; reduce flooding; mitigate traffic congestion.
 - b. Safety: Eliminate all road fatalities, significantly reduce crash severity and injury, and improve personal safety through increasing the number of people walking and bicycling.
 - c. Economic: Stimulate economic prosperity.
 - d. Health: Increase physical activity and social connectivity with the goal of lowering the risk of obesity, reducing chronic disease and promoting wellness.
 - e. Equity: Implement policies and distribute funding and other resources equitably and responsibly in all neighborhoods, particularly in Priority Communities; improve non-motor vehicle transportation systems.
2. This section shall apply to all public and/or private transportation projects, including those using funds awarded by federal, state, regional, county, municipal, or any other public agency. This shall include new construction, reconstruction, resurfacing, restoration, repaving, rehabilitation, private development projects, and maintenance of highways, roads, and streets.
3. The Borough of Dunellen's Municipal Planner in consultation with the Municipal Engineer shall routinely work in coordination with the Mayor and the Mayor's Traffic & Pedestrian Safety Task force and adjacent jurisdictions, and any relevant advisory committees/teams, to create Complete and Green Streets and to ensure consistency with the ***Borough of Dunellen*** Master Plan and Elements and any other existing Pedestrian/Bicycle/Multimodal Plans, Stormwater Management Plans, Pollution Prevention Plans, and Historic Preservation Plans.
4. Within two years of the effective date of this Policy, the Municipal Planner shall inventory and audit procedures, policies, plans, documents, training programs, performance measures and other guidance documents to be consistent with this policy. The purpose of this audit is to identify areas where tenets of this policy will need to be incorporated. This includes, but is not limited to, funding, planning, designing, operating, and maintaining transportation infrastructure. The ***Municipal Planner*** will use this audit to incorporate this policy as updates to its procedures, plans, policies, etc. as they are scheduled and in consultation with the Mayor and the Mayor's Traffic & Pedestrian Safety Task Force.
5. Transportation projects and Master and Capital Plans shall include, when appropriate, sustainable design elements, including, but not limited to:
 - a. Green stormwater infrastructure practices
 - b. Traffic calming
 - c. Shade trees and other vegetation
 - d. Rain gardens
 - e. Bioswales

- f. Permeable pavements — including those made from recycled materials such as rubber, concrete, glass, and plastic.
6. Transportation projects and Master and Capital Plans shall include, where appropriate, pedestrian and bicycle design elements and transit amenities, including but not limited to: curb extensions, sidewalks, radar feedback signs, pedestrian countdown signals, pedestrian refuge islands, road diets, lane width reductions, chicanes, roundabouts, bike lanes, protected bike lanes, bike parking, lighting, wayfinding, seating, trash receptacles, transit amenities, etc.
 7. The ***Borough of Dunellen*** shall direct municipal planners and engineers to utilize the most current editions of guides, manuals, and best practices on street design, historic preservation, construction, operations, and maintenance that apply to bicycle, pedestrian, transit, stormwater and highway facilities. All manuals, standards, and guidelines shall be made publicly available online.
 8. The **Borough Administrator and the Borough of Dunellen Mayor and Council** shall lead the implementation of this Policy and formally coordinate with ***all internal or hired planners and engineers, and the Department of Construction, Public Works, Police Department, and Health*** with advice and input from the ***Planning Board, Mayor's Traffic and Pedestrian Task Force, and Shade Tree Commission***, to set benchmarks to ensure the successful implementation of the Complete and Green Streets Policy including in Priority Communities consistent with Environmental Justice principals.

Public Participation

1. The ***Borough of Dunellen Mayor's Traffic and Pedestrian Task Force*** is established as a Complete and Green Streets Advisory Committee to help the ***Borough of Dunellen*** comply with the Complete and Green Streets policy/ordinance and to provide ongoing feedback to the ***Borough of Dunellen*** related to the implementation of the Complete and Green Streets Policy/Ordinance. The Complete and Green Streets Advisory Committee shall consist of a broad group of stakeholders including.
2. Beginning with the planning stage, the ***Borough of Dunellen*** shall identify an existing process or develop a new process that allows for public participation in decision-making concerning the planning, design, and use of streets and roadways covered by this Policy.

Exceptions

1. A transportation project may not be required to accommodate the needs of a particular user group if the ***Municipal Planner with the Borough Administrator and Mayor and Council, in consultation with the Mayor's Traffic & Pedestrian Safety Task Force***, determines in writing that:
 - a. The use of the transportation facility by the particular user group is prohibited by law;
 - b. Regulatory compliance requirements preclude accommodations.
 - c. There is a demonstrated absence of both a current and future need to accommodate the category of user (absence of future need may be shown via demographic, school, employment, and public transportation route data that demonstrate, for example, a low likelihood of bicycle, pedestrian, or transit activity in an area over the next 20 years); and
 - d. The adverse impacts of implementing this Complete and Green Streets Policy significantly outweigh the benefits.

However, every effort to work within the flexibility allowed should be made, including Design Exceptions for roadway projects.

2. An exception shall be granted only if:
 - a. Request for an exception is submitted **in writing** to the ***Municipal Planner and/or Municipal Engineer*** with supporting documentation, and made publicly available with a minimum of 30 days allowed for public input; and
 - b. The exception is approved **in writing** by the ***Municipal Planner and/or Municipal Engineer***, and the written approval is made publicly available.

Program Reporting

1. The ***Municipal Planner*** shall establish benchmarks reflecting the ability of all users to travel safely and conveniently along highways, roads and streets.
2. Each such ***Department (Department of Construction, Public Works, Police Department, and Health)*** shall assign appropriate responsibility to collect and monitor data under the ***Borough of Dunellen*** jurisdiction, including in Priority Communities, to determine compliance with the ***Borough of Dunellen*** benchmarks. Benchmarks shall include but are not limited to:
 - a. Mileage of new and existing bicycle infrastructure, including in Priority Communities (e.g., bicycle lanes, bike parking, paths, and boulevards)
 - b. Linear feet (or mileage) of new and existing pedestrian infrastructure (e.g., sidewalks, trails, transit amenities)
 - c. Number of new and existing ADA-compliant infrastructure (e.g., curb ramps, pedestrian buttons)
 - d. Number of new and existing street trees
 - e. Number of green street practices (e.g., rain gardens, bioswales, permeable pavement)
 - f. Number of new and existing pedestrian and bicycle lighting improvements
 - g. Bicycle and pedestrian counts (when available)
 - h. Commute mode percentages (e.g., drive alone, carpool, transit, bicycle, walk)
 - i. The number and percentage of designated transit stops accessible via sidewalks and curb ramps
 - j. The number, locations, and causes of collisions, injuries, and fatalities by each mode of transportation
 - k. The percentage of children walking or bicycling to school
3. All benchmarks established by ***the Borough of Dunellen*** shall be disaggregated by race/ethnicity, neighborhood, and vehicle ownership when feasible.
4. Each such Department shall provide a report on an annual basis to the ***Borough of Dunellen Mayor's Traffic and Pedestrian Task Force*** to allow them to evaluate the implementation of the Complete and Green Street policy. Each annual report shall include the data collected pursuant to Program Reporting, as well as a list of ongoing and completed transportation projects during that

fiscal year. If any exceptions are applied to transportation projects pursuant to Exceptions to Complete and Green Streets Requirements herein, such projects and the relevant exceptions should be identified in the annual report. All benchmarks and reports shall be made publicly available online.

Adoption of Complete and Green Streets Checklists

1. The **Borough of Dunellen Mayor's Traffic and Pedestrian Task Force** shall review Complete and Green Streets Checklists to be used during the project selection, planning, designing, construction, funding and maintenance of all transportation projects and make recommendations to the **Borough of Dunellen Mayor and Council to adopt** the Complete and Green Streets **checklists**.
2. Each item in the checklist includes areas to provide a brief description for how the item is addressed, not addressed, or not applicable to the Complete and Green Streets policy.
3. The checklist explains the process for granting exceptions and indicate who is responsible for approving any exceptions before they are granted.
4. The **Borough of Dunellen Mayor's Traffic and Pedestrian Task Force in coordination with the *Department of Construction and/or the Borough Administrator*** shall be responsible for completing the checklists and/or reviewing the checklists provided by developers or others.
5. A Complete and Green Streets checklist shall entail but is not limited to:
 - a. Existing pedestrian, bicycle, transit, motor vehicle, and truck/freight accommodations (facilities) and operations
 - b. Traffic volumes
 - c. Existing safety and/or access issues, and Americans with Disabilities Act (ADA) compliance
 - d. Land use within the study area, including trip generators
 - e. Existing and proposed streetscape elements including furniture, trees or other environmental and stormwater enhancements
 - f. Review of existing plans
 - g. Proposed pedestrian, bicycle, transit, motor vehicle, and truck/freight accommodations (facilities) and desired future operations
 - h. ADA compliance of the proposed design
 - i. Compatibility with the surrounding land use and density
 - j. Consistency with applicable design standards and guidelines
 - k. Opportunities to improve public health through physical activity and mobility options
 - l. Opportunities to manage stormwater through green infrastructure
6. All Complete and Green Street checklists shall be made accessible online and available to the Complete and Green Streets Advisory Body.

Effective Date

The Complete and Green Streets policy shall take effect on **[date]**, provided that it shall not apply to any transportation project for which a preliminary design has been completed on or before **[date]**.

Key Terms & Definitions

Complete Streets: An integrated transportation network designed to enable safe and convenient travel and access along and across streets for all users of all ages and abilities, including pedestrians, bicyclists, motorists, movers of commercial goods, and transit riders.

Environmental Justice: Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies. Meaningful involvement means that:

1. People have an opportunity to participate in decisions about activities that may affect their environment and/or health.
2. The public's contribution can influence the regulatory agency's decision.
3. Community concerns will be considered in the decision-making process; and
4. Decision makers will seek out and facilitate the involvement of those potentially affected.

Green Streets: Streets with landscaped features installed in the rights-of-way that capture and allow stormwater runoff to soak into the ground, while still preserving the primary function of a street as a conduit for pedestrians, bicyclists, motorists, and transit riders. Stormwater runoff is excess water generated from rain and snowmelt events that flow over impervious surfaces, such as paved streets, parking lots, and building rooftops, and does not soak into the ground.

Green Street Stormwater Infrastructure Practices: Includes types of green infrastructure techniques used to manage stormwater, including but not limited to:

1. Street tree trenches/boxes: utilize soil, gravel, and plants to infiltrate and filter stormwater runoff from impervious surfaces
2. Bioswales: shallow channels that convey, slow down, and infiltrate stormwater runoff.
3. Vegetated curb bump outs: a vegetated curb extension that protrudes into the street either mid-block or at an intersection, creating a new curb some distance from the existing curb.
4. Permeable pavement: a stormwater drainage system that allows rainwater and runoff to move through the pavement's surface to a storage layer below, with water eventually seeping into underlying soil. Types of permeable pavement include pervious concrete, porous asphalt, interlocking concrete pavers, and grid pavers.

Green Stormwater Infrastructure: An approach to managing stormwater by infiltrating it in the ground where it is generated using vegetation or porous surfaces, or by capturing it for later reuse. Infiltration is when water falls to the earth as precipitation and seeps into the soil.

Priority Communities: The term Priority Communities refers to categories of underserved and adversely impacted populations. There is a wide range of definitions used to quantify and locate underserved populations developed by agencies and organizations dedicated to social equity by law or mission.

Each municipality should evaluate who and where there are concentrations of underserved or marginalized populations based on available data. Below are some of the categories to consider when defining Priority Communities:

1. Minority Concentrations
2. Low-Income Concentrations
3. Other Indicators of Underserved and Adversely Impacted Populations:
 - a. Female Head of Household with Children
 - b. Persons with Limited English Proficiency
 - c. Carless Households
 - d. Elderly Populations/Children
 - e. Persons with Disabilities
 - f. Hispanic Populations
 - g. Other Ethnic Minorities
 - h. Families in Poverty with Children

Traffic Calming: The combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users. Traffic calming objectives include:

1. Achieving slow speeds for motor vehicles
2. Reducing collision frequency and severity
3. Increasing the safety and the perception of safety for non-motorized users of the street(s)
4. Reducing the need for police enforcement
5. Enhancing the street environment (e.g., streetscaping)
6. Encouraging water infiltration into the ground using Green Street stormwater infrastructure practices
7. Increasing access for all modes of transportation, and reducing cut-through motor vehicle traffic

Transit Amenities: Include seating, shelter and shade, wayfinding signage, trash and recycling cans, lighting, route information, bike infrastructure (lockers, racks, fix-it stations, depots, bikeshare, etc.).

Transportation Facility: A facility consisting of the means and equipment necessary for the movement of people or goods; any road, bridge, tunnel, overpass, ferry, airport, mass transit facility, vehicle parking facility, port facility or similar commercial facility used for the transportation of persons or goods together with any buildings, structures, parking areas, appurtenances, and other property needed to operate such facility; however, a commercial or retail use or enterprise not essential to the transportation of people or goods shall not be considered a transportation facility.

Transportation Project: Any public and/or private land development, project, program, or practice that affects the transportation network or occurs in the public right-of-way, including any construction,

reconstruction, retrofit, signalization operations, resurfacing, restriping, rehabilitation, maintenance (excluding routine maintenance that does not change the roadway geometry or operations, such as mowing, sweeping, and spot repair), operations, alteration, and repair of any public street or roadway within a jurisdiction (including alleys, bridges, frontage roads, and other elements of the transportation system).

Concept Development Checklist

item to be addressed	checklist consideration	yes	no	n/a	required description
<p>EXISTING BICYCLE, PEDESTRIAN AND TRANSIT ACCOMMODATIONS</p>	<p>Are there accommodations for bicyclists, pedestrians (including ADA compliance) and transit users included on or crossing the current facility?</p> <p>Examples include (but are not limited to):</p> <ul style="list-style-type: none"> • Sidewalks • Signalized or protected crosswalks • Pedestrian-scale lighting • Multi-use trails • Public seating • Bike racks • Transit shelters 				
<p>EXISTING BICYCLE AND PEDESTRIAN OPERATIONS</p>	<p>Has the existing bicycle level of traffic stress and pedestrian suitability on the current transportation facility been identified?</p>				
	<p>Have the bicycle and pedestrian conditions within the study area, including pedestrian and/or bicyclist treatments, volumes, important connections and lighting been identified?</p>				
	<p>Do bicyclists/pedestrians regularly use the transportation facility for commuting or recreation?</p>				
	<p>Are there physical or perceived impediments to bicyclist or pedestrian use of the transportation facility?</p>				

Concept Development Checklist

item to be addressed	checklist consideration	yes	no	n/a	required description
EXISTING BICYCLE AND PEDESTRIAN OPERATIONS (continued)	Have the existing volumes of pedestrian and/or bicyclist crossing activity at intersections including midblock and nighttime crossing been collected/provided?				
	Are there multi-use trails in the area that can be connected to this transit center/bus stop/network/area?				
EXISTING TRANSIT OPERATIONS	Are there existing transit facilities within the project area, including bus and train stops/stations?				
	Is the transportation facility on a transit route?				
	Is the transportation facility within two miles of "park and ride" or "kiss and go" lots?				
	Are there existing or proposed amenities including pedestrian seating/shelters, bicycle racks or parking available at these lots or transit stations? Are there bike racks on buses that travel along the facility?				
PUBLIC PARTICIPATION	Has there been a clear process for public participation?				
	Are project Concept Development Checklists currently available on-line?				
EXISTING MOTOR VEHICLE OPERATIONS	Are there existing concerns within the study area, regarding motor vehicle safety, traffic volumes/ congestion or access?				

Concept Development Checklist

item to be addressed	checklist consideration	yes	no	n/a	required description
EXISTING TRUCK/ FREIGHT OPERATIONS	Are there existing concerns within the study area, regarding truck/ freight safety, volumes, or access?				
EXISTING ACCESS AND MOBILITY	Are there any existing access or mobility considerations, including ADA compliance?				
	Are there any schools, hospitals, senior care facilities, educational buildings, community centers, residences or businesses of persons with disabilities within or proximate to the study area?				
LAND USE	Have you identified the predominant land uses and densities within the study area, including any main street, historic districts or special zoning districts?				
	Is the transportation facility in a high-density land use area that has pedestrian/bicycle/motor vehicle and transit traffic?				
MAJOR SITES	Have you identified the major sites, destinations, and trip generators within or proximate to the study area, including prominent landmarks, employment centers, recreation, commercial, cultural and civic institutions, schools, and public spaces?				

Concept Development Checklist

item to be addressed	checklist consideration	yes	no	n/a	required description
EXISTING STREETScape	Are there existing or planned street trees, planters, buffer strips, or other environmental enhancements such as drainage swales within the study area?				
RESURFACING	Can additional road uses be supported and/or safety improved by reconfiguring lanes within the same roadway width? Examples include but not limited to, lane narrowing, lane reconfiguration, lane reduction (road diet), on-street bicycle parking, high visibility crosswalks, painted curb extension, etc.				
EXISTING PLANS	Are there any comprehensive planning documents that address bicyclist, pedestrian or transit user conditions within or proximate to the study area? Examples include (but are not limited to): <ul style="list-style-type: none"> • School Travel Plans • Municipal or County Master or Redevelopment Plan • Local, County and Statewide Bicycle and Pedestrian Plans • Local, County and Regional Trail Plans • Sidewalk Inventories • MPO Transportation Plan • NJDOT Designated Transit Village 				
IMPERVIOUS COVER	Is there an opportunity to remove impervious surface as part of this project?				

Concept Development Checklist

item to be addressed	checklist consideration	yes	no	n/a	required description
PRIORITY COMMUNITIES	Does the project area include Priority Communities (as defined by Complete Streets)?				
SAFETY	Does the crash history of the study area include injuries and fatalities of all road users?				
STORMWATER MANAGEMENT	Does the project area have a history of flooding? Is the project area in a combined sewer system and subject to combined sewer overflows?				
	Does nonpoint source pollution from the project area generate runoff that flows into a critical water body?				
PUBLIC HEALTH	Does the Community Health Needs Assessment (CHNA) or Community Health Improvement Plan (County Health Department) identify need for health improvements in the project area? Examples include health in safe zones, increases in number/length of walking/ bicycling paths.				

Municipal or County Planner Sign-Off

statement of compliance	yes	no	If NO, please describe why (refer to Exemptions Clause)
The plan or roadway improvement accommodates bicyclists, pedestrians, transit users of all ages and abilities, and addresses the related public health, Priority Communities, and environmental goals as set forth in the Borough of Dunellen Complete and Green Streets Policy .			

Preliminary Engineering Checklist

item to be addressed	checklist consideration	yes	no	n/a	required description
<p>BICYCLIST, PEDESTRIAN, AND TRANSIT ACCOMMODATIONS</p>	<p>Does the proposed project design include accommodations for bicyclists described in the NUDOT Complete Streets Design Guide?</p> <p>Examples include (but are not limited to):</p> <p>Bicycle facilities:</p> <ul style="list-style-type: none"> • Bicycle path/bicycle lane/ bicycle route/bicycle boulevard • Bicycle actuation at signals (loop detectors and stencil or other means) • Signs, signals and pavement markings specifically related to bicycle operation on roadways or shared-use facilities • Bicycle safe inlet grates <p>Bicycle amenities:</p> <ul style="list-style-type: none"> • Call boxes (for trail or bridge projects) • Drinking fountains (also for trail projects) • Secure long term bicycle parking (e.g., for commuters and residents) • Secure short-term bicycle parking 			n/a	

Preliminary Engineering Checklist

item to be addressed	checklist consideration	yes	no	n/a	required description
<p>BICYCLIST, PEDESTRIAN, AND TRANSIT ACCOMMODATIONS (continued)</p>	<p>Does the proposed project design address accommodations for pedestrians? Examples include (but are not limited to): Pedestrian facilities: Sidewalks (preferably on both sides of the street); mid-block crosswalks; striped crosswalks; geometric modifications to reduce crossing distances such as curb extensions (bulb-outs); pedestrian-actuated traffic signals such as High Intensity Activated Crosswalk Beacons, Rapid Rectangular Flashing Beacons; dedicated pedestrian phase; pedestrian signal heads and pushbuttons; pedestrian signs for crossing and wayfinding, lead pedestrian intervals; high visibility crosswalks (e.g., ladder or zebra); pedestrian-level lighting; in-road warning lights; pedestrian safety fencing; pedestrian detection system; pedestrian overpass/underpass; and median safety islands for roadways with (two or more) traffic lanes in each direction) Pedestrian amenities: Shade trees; public seating; drinking fountains</p>				

Preliminary Engineering Checklist

item to be addressed	checklist consideration	yes	no	n/a	required description
MOTOR VEHICLE OPERATIONS	Does the proposed design address the desired future motor vehicle conditions within the project area, including volumes, access, important motor vehicle connections, appropriateness of motor vehicle traffic to the particular street (e.g., local versus through traffic) and the reduction of the negative impacts of motor vehicle traffic?				
TRUCK/FREIGHT OPERATIONS	Does the proposed design address the desired future truck conditions within the project area, including truck routes, volumes, access, mobility and the reduction of the negative impacts of truck traffic?				
ACCESS AND MOBILITY	Does the proposed design address accommodations for those with access or mobility challenges such as the disabled, elderly, and children, including ADA compliance? Examples include (but are not limited to): Curb ramps, including detectable warning surface; accessible signal actuation; adequate sidewalk or paved path (length & width or linear feet); acceptable slope and cross-slope (particularly for driveway ramps over sidewalks, over crossings and trails); and adequate green signal crossing time				

Preliminary Engineering Checklist

item to be addressed	checklist consideration	yes	no	n/a	required description
LAND USE	Is the proposed design compatible with the predominant land uses and densities within the project area, including any historic districts, main streets, or special zoning districts?				
MAJOR SITES	Can the proposed design support the major sites, destinations, and trip generators within or proximate to the project area, including prominent landmarks, commercial, cultural and civic institutions, and schools, public spaces?				
STREETSCAPE	Does the proposed design include landscaping, street trees, planters, buffer strips, or other environmental enhancements such as drainage swales?				
DESIGN STANDARDS OR GUIDELINES	Does the proposed design follow all applicable design standards or guidelines appropriate for bicycle and/or pedestrian facilities? Examples include (but are not limited to): American Association of State Highway and Transportation Officials (AASHTO) – A Policy on Geometric Design of Highway and Streets, Guide for the Development of Bicycle Facilities, Guide for the Planning, Design, and Operation of Pedestrian Facilities; Public Right-of- Way Accessibility Guide (PROWAG);				

Preliminary Engineering Checklist

item to be addressed	checklist consideration	yes	no	n/a	required description
<p>DESIGN STANDARDS OR GUIDELINES (continued)</p>	<p>Manual on Uniform Traffic Control Devices (MUTCD); Americans with Disabilities Act Accessibility Guidelines (ADAAG); National Association of City Transportation Officials (NACTO) – Urban Bikeway Design Guide; Urban Streets Stormwater Guide; New Jersey Department of Transportation (NJDOT) – Complete Streets Design Guide; Roadway Design Manual; Smart Transportation Guidebook. Rutgers University – Green Infrastructure Guidance Manual; ITE – Designing Walkable Urban Thoroughfares</p>				
<p>SAFETY</p>	<p>Does the proposed project design include elements from the FHWA Proven Safety Countermeasures? Examples include, but are not limited to, road diets, medians and pedestrian islands, lead pedestrian intervals, etc.</p>				
<p>STORMWATER MANAGEMENT</p>	<p>Has an impervious cover assessment been performed and have impervious surface areas been minimized while meeting engineering standards and guidelines?</p>				

Preliminary Engineering Checklist

item to be addressed	checklist consideration	yes	no	n/a	required description
STORMWATER MANAGEMENT (continued)	Has an impervious cover reduction action plan been completed for the project area, and does the project design include elements to reduce the impacts of stormwater runoff from impervious surfaces? Examples include (but are not limited to): <ul style="list-style-type: none"> • Bioretention and rain gardens • Bioswales • Stormwater planters • Tree filter boxes 				
Municipal or County Engineer Sign-Off					
statement of compliance	The plan or roadway improvement accommodates bicyclists, pedestrians, transit users of all ages and abilities, and addresses the related public health, Priority Communities, and environmental goals as set forth in the Borough of Dunellen Complete and Green Streets Policy.	yes	no		If NO , please describe why (refer to Exemptions Clause)

Construction Checklist






Item to be addressed	Checklist consideration	yes	no	n/a	Required description
Maintenance of Traffic	During construction, will safe access be maintained for all users, including pedestrians, bicyclists, transit users, and delivery vehicles?				
Detours	Will detour routes for all users on site or nearby be provided and clearly marked, including advanced warning signs?				

Construction Official Sign-Off

Statement of Compliance	yes	no	If NO, please describe why (refer to Exemptions Clause)
The plan or roadway improvement accommodates bicyclists, pedestrians, transit users of all ages and abilities, and addresses the related public health, Priority Communities, and environmental goals as set forth in Borough of Dunellen Complete and Green Streets Policy.			

Maintenance Checklist					
Item to be addressed	Checklist consideration	yes	no	n/a	Required description
Street Cleaning	Does the street cleaning include the shoulder or roadway to the curb? Are the sidewalks cleaned on a regular basis?				
Snow Removal	Does snow plowing block or push snow into crosswalks, blocking clear access? Does the Municipality or County shovel out crosswalks or enforce residential requirements to clean snow from the crosswalk right of way?				
Re-striping	Can additional road uses be supported and/or safety improved by reconfiguring lanes within the same roadway width? Examples include (but are not limited to): <ul style="list-style-type: none"> • Lane narrowing • Lane reconfiguration • Lane reduction (road diet) • On-street bicycle parking • High-visibility crosswalks • Painted curb extension, etc. 				
Stormwater Management	Does the maintenance plan include procedures to unobstruct drainage (e.g., inlets, curb-cuts, grates, etc.) into the green infrastructure facility? Has landscaping been maintained?				
Maintenance/Public Works Sign-Off					
Statement of Compliance		yes	no	If NO, please describe why (refer to Exemptions Clause)	
The Municipality or County roadway maintenance and snow removal plan accommodates bicyclists, pedestrians, and stormwater management installations as set forth in [municipality/county] Complete Streets Policy.					

Pedestrian Safety & Mobility: What are your biggest concerns?

- Not Enough Sidewalks**  3 dots (2 purple, 1 yellow)
- Not Enough Crosswalks**  3 dots (2 green, 1 purple)
- Crosswalk Too Long**  0 dots
- Inadequate Crossing Time**  1 dot (green)
- Faded Crosswalk Paint**  5 dots (2 green, 2 purple, 1 yellow)
- No Curb Ramps**  0 dots

- Obstructed Sidewalks**  3 dots (2 green, 1 yellow)
- Incomplete Sidewalks**  6 dots (3 green, 2 yellow, 1 red)
- No Pedestrian Lighting**  6 dots (3 yellow, 2 purple, 1 red)
- No Crossing Guards**  3 dots (2 green, 1 yellow)

Other Concerns for Walking?

uneven sidewalks

if walking on the road, it's hard to see the road

crosswalks that are not marked

Driver Behavior: What are your biggest concerns?

- Speeding**  10 dots (5 green, 3 yellow, 2 purple)
- Distracted Driving**  6 dots (3 green, 2 yellow, 1 purple)
- Drivers not stopping for pedestrians**  10 dots (5 green, 3 yellow, 2 purple)
- Idling Vehicles**  1 dot (blue)
- Tailgating**  0 dots
- Ignoring Traffic Signs/Signals**  5 dots (2 green, 2 yellow, 1 red)

Other Concerns for Driver Behavior?

confusing turn lanes - no paint/sign

Where do you like to walk or bike in Dunellen?

Place a dot



Write a comment

*walking trail along ^{the green} brook
as part of the Green Brook Flood control
Project*

Pedestrian Facilities: What would you like to see more in Dunellen?

Residential Sidewalks 		Parklets 	
Downtown Sidewalks & Amenities 		Lighting 	
Crossing Guards 		Trails 	
High-Visibility Crosswalks with ADA-Compliant Curb Ramps 		Rain Gardens / Green Infrastructure 	
Raised Crosswalks 		Other Ideas for Pedestrian Facilities? <p><i>More street trees and appreciation of them.</i></p>	
Pedestrian Crossing Beacons 			

Bike Facilities: What would you like to see more in Dunellen?

Low-Stress Bike Networks			Bike Compatible Crossings		
Bike Lanes			Shared Use Paths		
Buffered Bike Lanes			Bike Share / Micromobility		
Bike Corrals			Other Ideas for Bike Facilities? Better Connected Routes to Metuchen, New Brunswick + signage		
Sidewalk Bike Racks					
Station Area Bike Parking					

Dunellen Complete & Green Streets Policy | NJTPA | Dunellen Active Transportation Planning Study

Traffic Calming: What would you like to see more in Dunellen?

Curb Extension			Raised Crosswalk or Raised Intersection		
Neighborhood Traffic Circle or Mini Roundabout			Speed Hump		
Mini Roundabout			Speed Cushion		
Chicane / Lateral Shift			Median Island		
Signs & Pavement Markings			Other Ideas for Traffic Calming? Add the speed limit sign for 25 mph		
Radar Feedback Signs					

Dunellen Complete & Green Streets Policy | NJTPA | Dunellen Active Transportation Planning Study

D. 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](https://www.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 Complete 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/>

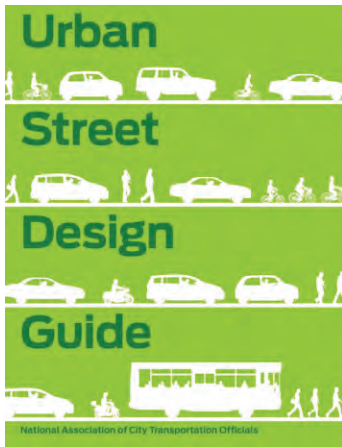
New Jersey Transportation Infrastructure Bank (NJTIB): The NJTIB is an independent State Financing Authority responsible for providing and administering low interest rate loans to qualified municipalities, counties, and regional authorities in New Jersey. The unique partnership with NJDOT was established 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.

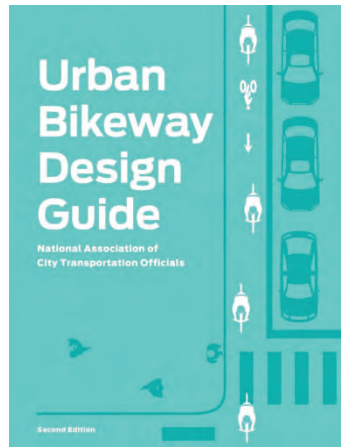
County and Municipal Open Space Trust Funds: All New Jersey counties and many New Jersey municipalities have an Open Space Trust Fund, which is a dedicated program supporting open space land acquisition. The trust funds are established by ballot measure. Depending on the fund parameters, other development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

E. Guidance Documents

NACTO Guides



[Urban Street Design Guide](#)



[Urban Bikeway Design Guide](#)



[Transit Street Design Guide](#)



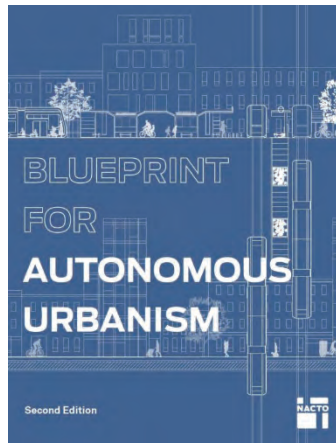
[Urban Street Stormwater Guide](#)



[Global Street Design Guide](#)



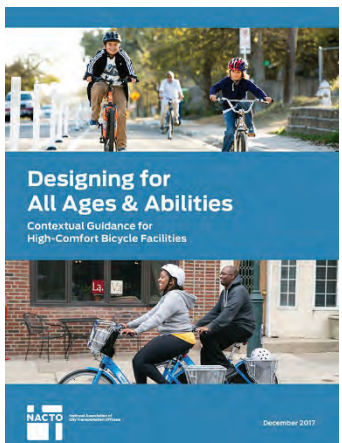
[Designing Streets for Kids](#)



[Blueprint for Autonomous Urbanism](#)



[Bike Share Station Siting Guide](#)



[Designing for All Ages & Abilities](#)



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

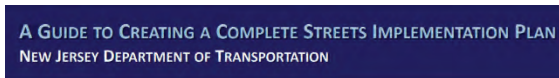
NJDOT Guides



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



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



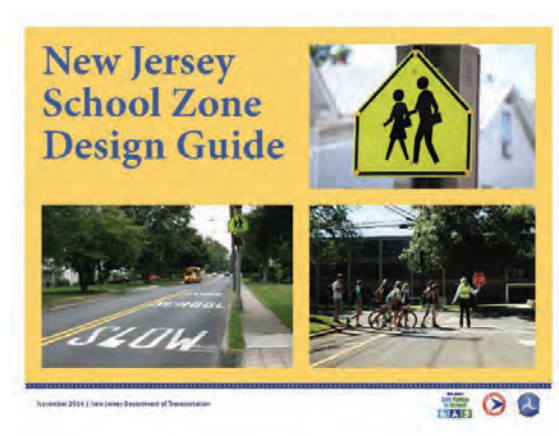
[A Guide to Creating a Complete Streets Implementation Plan](#)



[A Guide to Policy Development](#)



[School Bicycle Parking Guide](#)



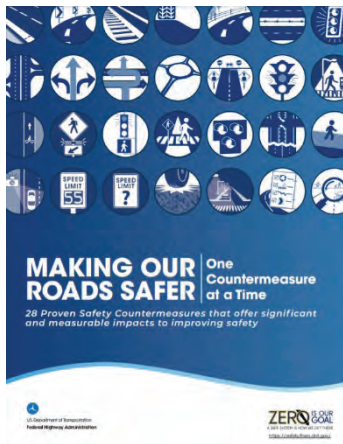
[New Jersey School Zone Design Guide](#)

ADA Guidelines



[ADA Standards for Accessible Design](#)

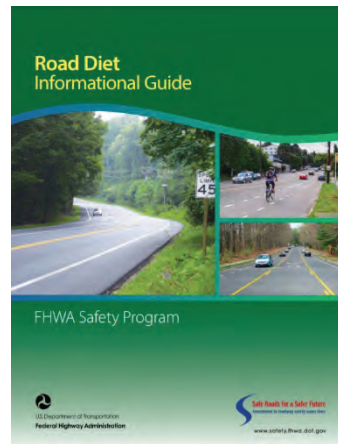
FHWA Guides



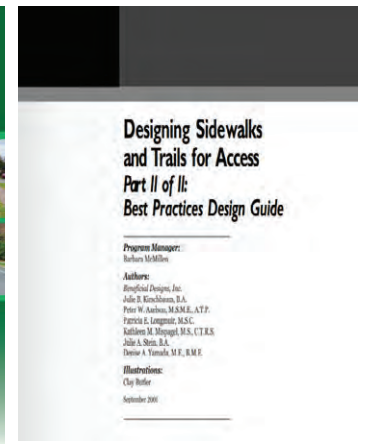
[Making Our Roads Safer: One Countermeasure at a Time](#)



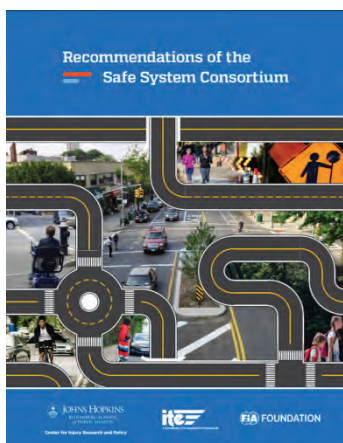
[Separated Bike Lane Planning and Design Guide](#)



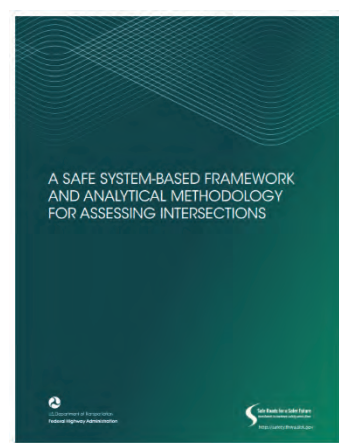
[Road Diet Informational Guide](#)



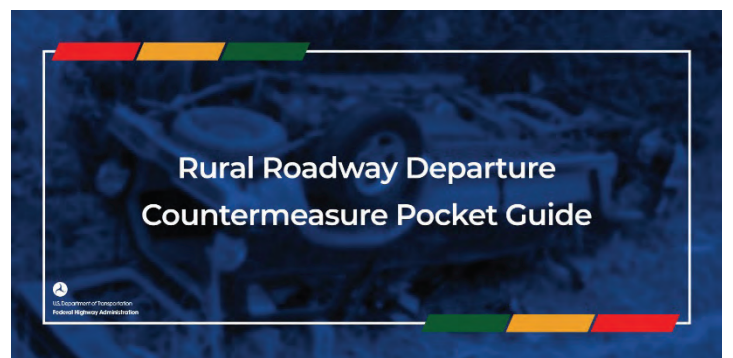
[Designing Sidewalks and Trails for Access Part II of II: Best Practices Design Guide](#)



[Recommendations of the Safe System Consortium](#)

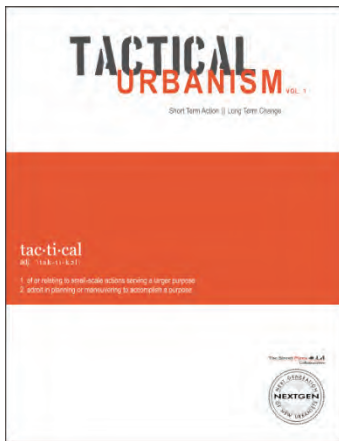


[A Safe System-Based Framework and Analytical Methodology for Assessing Intersections](#)

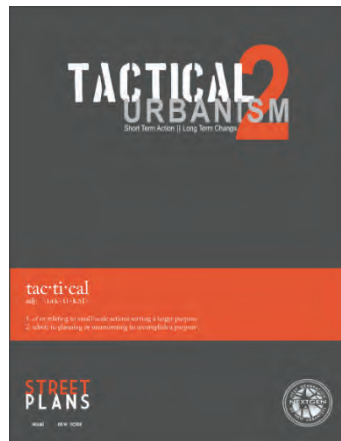


[Rural Roadway Departure Countermeasure Pocket Guide](#)

Tactical Urbanism Guides



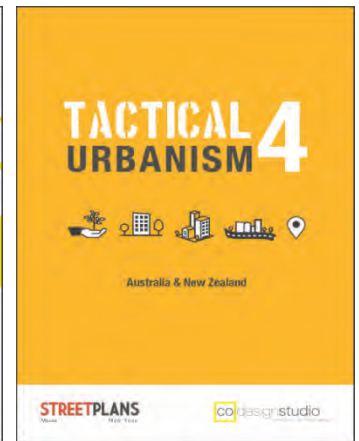
[Tactical Urbanism 1](#)



[Tactical Urbanism 2](#)



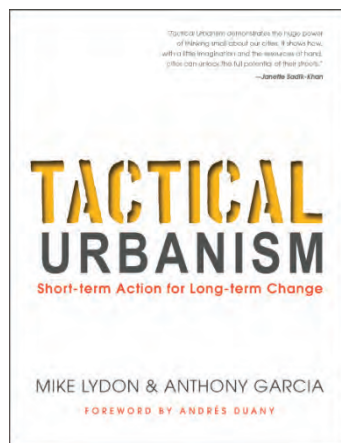
[Tactical Urbanism 3](#)



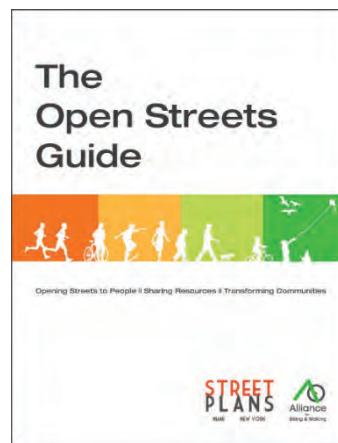
[Tactical Urbanism 4](#)



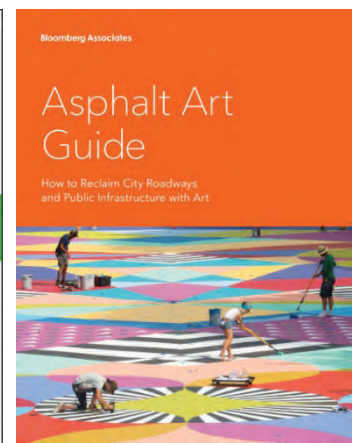
[Tactical Urbanism 5](#)



[Tactical Urbanism: The Book](#)



[The Open Streets Guide](#)



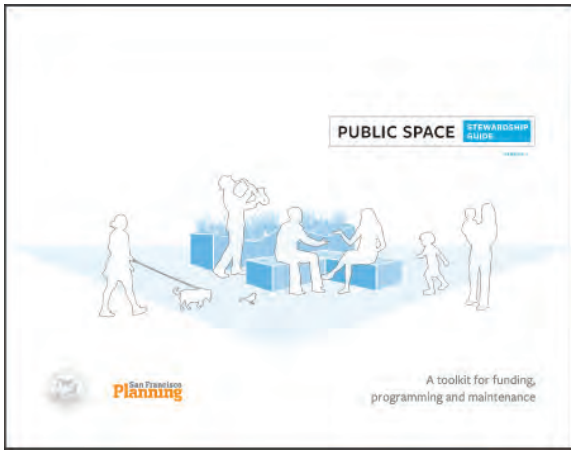
[Asphalt Art Guide](#)



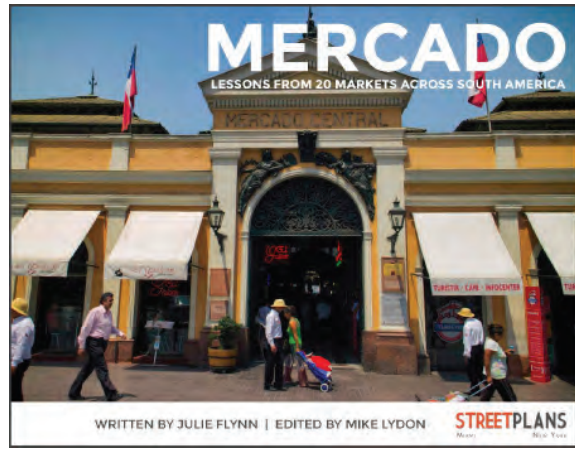
[Tactical Urbanist's Guide to Materials and Design](#)



[Fast-Tracked: A Tactical Transit Study](#)



[Public Space Stewardship Guide](#)



[Mercado: Lessons from 20 Markets Across South America](#)

