



**NJTPA**

**NORTH JERSEY  
TRANSPORTATION  
PLANNING AUTHORITY**

# North Jersey Regional Active Transportation Plan

**EXECUTIVE SUMMARY  
JUNE 2023**



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# Acknowledgments

## Technical Advisory Committee:

Delaware Valley Regional Planning Commission; EZ Ride Transportation Management Association; goHunterdon Transportation Management Association; Hudson County; Middlesex County; Monmouth County; New Jersey Bike & Walk Coalition; New Jersey Department of Environmental Protection, Office of Environmental Justice; New Jersey Department of Health, Office of Minority and Multicultural Health; New Jersey Department of Transportation, Bureau of Safety, Bicycle and Pedestrian Programs; New Jersey Department of Transportation, Bureau of Safety, Bicycle and Pedestrian Programs; NJ TRANSIT, Capital Planning; NJ TRANSIT, Facilities Planning; NJ TRANSIT, Programmatic Planning; Port Authority of New York and New Jersey, Planning & Regional Development Department; Rutgers University Alan M. Voorhees Transportation Center; Somerset County; TransOptions Transportation Management Association; Tri State Transportation Campaign

## Prepared By:

**TOOLE**  
DESIGN



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

*The NJTPA is the federally authorized Metropolitan Planning Organization (MPO) for the 13-county northern New Jersey region, home to 7 million people. It evaluates and approves transportation improvement projects, provides a forum for cooperative transportation planning, sponsors and conducts studies, assists county and city planning agencies and monitors compliance with air quality goals.*





City of Jersey City, Hudson County

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# Executive Summary

# About the Plan

In a location as geographically diverse as the NJTPA region, opportunities for safe walking and biking vary greatly, and may involve on- or off-road travel for commuting or recreation. When people choose forms of active transportation, such as walking, bicycling, or riding a non-motorized scooter or skateboard, they also experience a range of benefits—from better health to a stronger sense of community. Recognizing the incredible importance of active transportation, the North Jersey Transportation Planning Authority (NJTPA) developed a Regional Active Transportation Plan (ATP) for its 13-county northern and central New Jersey region.

The ATP provides a blueprint to create a safe, comfortable, and connected network for active transportation users across the region. The ATP aims to promote equity and economic opportunity by increasing mobility through resilient and environmentally friendly transportation options. It will also encourage a healthy lifestyle for the region's diverse residents and communities.

## Regional Network

The ATP identifies facilities that could be upgraded and improved through the concerted efforts of communities, civic organizations, state government and others to form a regional active transportation network for North Jersey. The network when built-out would provide a safe, functional, and connected system that accommodates a variety of trip types and users, including local and regional recreation, commuting, and other local transportation trips (errands/shopping, etc.) for people walking and biking.

The ATP's recommendations are meant to fill gaps in the existing network and to expand the network to better connect the region with the help of partners in all communities.

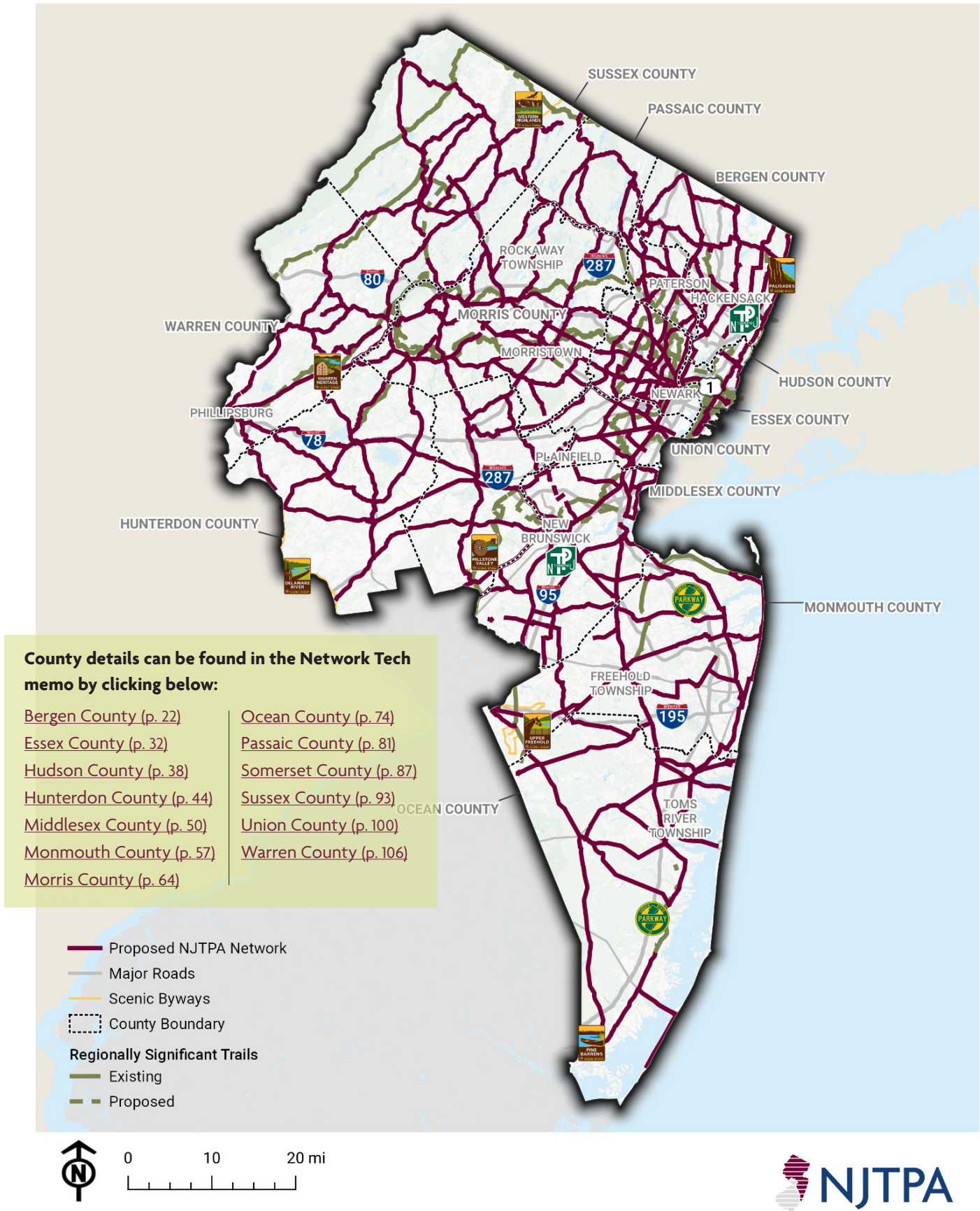
The network, shown in Figure 1, is aspirational in scope, envisioning North Jersey's ideal regional active transportation system, unconstrained by fiscal and other limitations. This aspirational network, therefore does not describe the particulars of facility types and exact alignments. The purpose of creating a conceptual regional active transportation network is to establish a common framework for all jurisdictions—municipal, county, and state—to refer to when creating active transportation facilities. In the long term, these facilities then coalesce to support all types of walking and biking trips across the region.



Garwood Borough



**Figure 1: Regional Network**





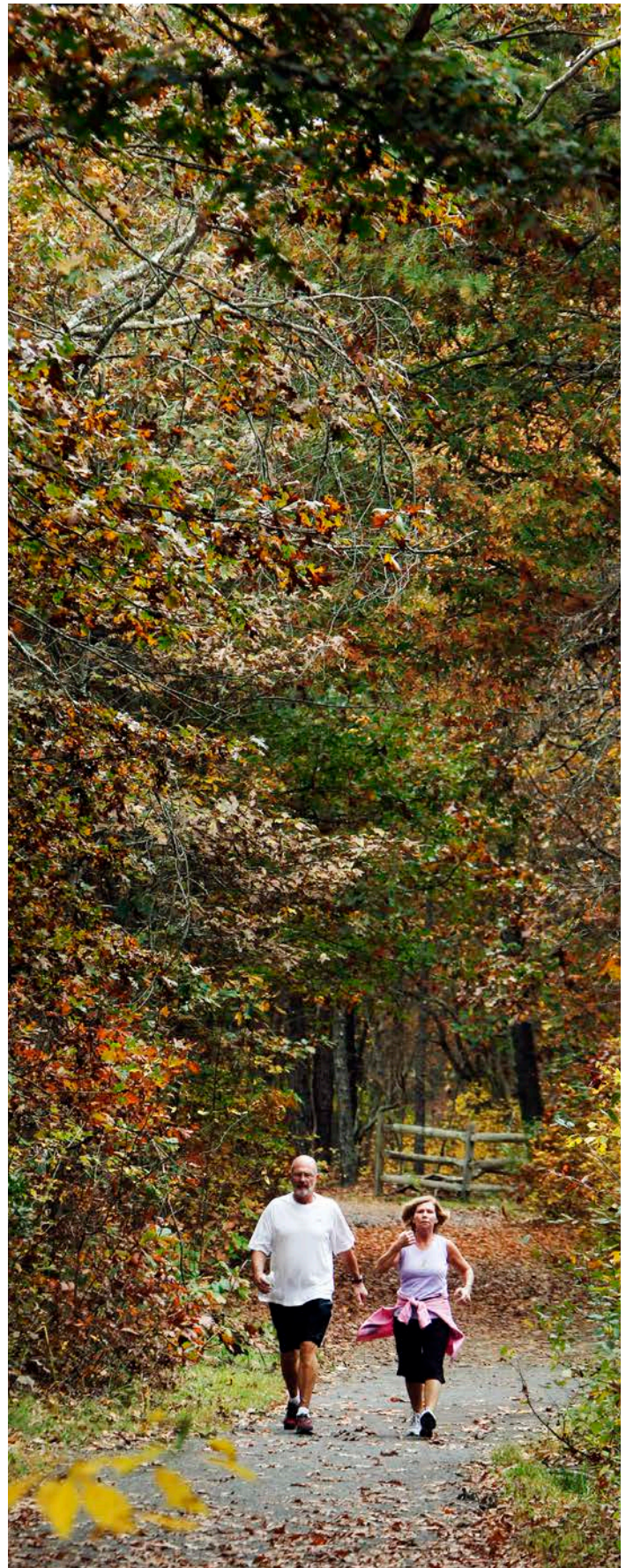
## Anticipated Benefits of the Network

The regional network includes more than 1,700 miles of roadways recommended for walking and biking improvements across North Jersey. More than 5.6 million people live within one mile of the network, comprising 80 percent of the region's population. The ATP's proposed routes and the existing and planned trails within the region form a potentially comprehensive regional transportation system for walking and biking. Realizing this potential will require further study of many segments and locations through cooperative efforts of appropriate levels of government and interested parties, drawing upon the strategies identified in this plan and making use of the data and analysis on which this plan was based.

Once substantially complete, this system would dramatically expand the region's active transportation accommodations. It would also connect to existing facilities and fill gaps in the region's current active transportation network. For example, the network improves access to NJ TRANSIT commuter and light rail lines, providing a strong opportunity to strengthen first- and last-mile connections from transit stations to population centers throughout the region. It also expands the reach of regionally significant trails, such as the Middlesex Greenway, Morris Canal Greenway, Essex-Hudson Greenway, and East Coast Greenway; and increases access to existing trail systems with on-street connections.

## Next Steps

This ATP aims to provide a blueprint, or starting point, for the many public and private entities actively engaged in creating active transportation pathways in the NJTPA region. The realization of this ATP will require extensive coordination between all entities—state and local agencies and elected representatives; non-profit and business organizations; and the public. The NJTPA can coordinate with planning partners on initiatives to create the proposed network and can offer programmatic guidance and data gathered in compiling this plan to assist with further planning and implementation.



Barneгат Branch Trail, Ocean County

# Plan Overview

Beginning in 2022, the ATP project team conducted data analysis and extensive dialog with local governments, state agencies, stakeholders and the public to create a conceptual network of on and off-road routes and trails for active transportation. The team conducted public outreach, attending events throughout the region to engage directly with residents, scheduling focus groups to better understand the experiences and preferences of a diverse range of constituents, and interviewing key stakeholders to identify their active transportation priorities. The analysis, research, and community input informed the development of the regional network, described below, as well as a set of program and policy recommendations to support active transportation implementation.







City of Orange Township, Essex County

## Plan Elements

The ATP provides an overview of walking and bicycling conditions in the NJTPA region, identifies gaps and barriers, and recommends infrastructure and program/policy improvements to achieve the ATP's vision. The ATP provides a Strategy Guide with a tailored set of recommendations to support the implementation of the active transportation network. Data and analysis from the ATP is being made available for local planning efforts supporting this implementation. A series of technical memoranda and supporting documents provide more detail for each plan element. They are available on the NJTPA's website and linked throughout this document.

1. [Trip Potential Analysis](#)
2. [Barrier Analysis](#)
3. [Equity and High Crash Network Screening Analyses](#)
4. [Public Engagement Summary](#)
5. [Regional Active Transportation Network Recommendations](#)
6. [Strategy Guide](#)
7. [Case Studies: Parish Drive in Wayne and Main Street in Stanhope/Netcong](#)
8. [Case Study: Active Transportation Facility Design at Highway Interchanges](#)

# Purpose

## Vision

The ATP aims to provide the foundation for creating a safe, comfortable, and connected network for active transportation users. This network will promote equity and economic opportunity by providing healthy lifestyle options for the region's diverse residents and communities. It will also increase mobility through resilient and environmentally friendly transportation options.

## Context

North Jersey's existing multimodal transportation infrastructure and high population density provides opportunities to develop a more robust active transportation network. In the region's cities and downtowns, compact centers make active transportation an ideal option for quick and efficient travel. Some of these town centers also offer public transportation networks that are positioned to complement active transportation. Improved sidewalks and bike lanes would make it easier for people who work near their homes, or for those who have a short walk or ride to the nearest public transportation source.

The ATP looks at each county in the NJTPA region and considers its unique existing conditions. Outside of city centers and suburban downtowns, the region's varied density and existing transportation options require tailored solutions. In more rural settings, active transportation options are more likely to be used for recreational travel.<sup>1</sup>

Whether in urban, suburban or rural areas, most residents are seeking more opportunities to walk and bike, whether for commuting, for health, or for fun. The NJTPA and its city and county subregions have collectively made great strides toward creating active transportation pathways and networks, including conducting Walkable Community Workshops; partnering with communities on Street Smart NJ Campaigns; creating data resources such as pedestrian counts; and partnering with NJDOT and NJ TRANSIT on Safe Routes to School, Complete Streets, and supporting Transit Villages. These activities support residents' desire for safer, more walkable streets and trails.

## Why This Plan Was Needed

Active transportation means opting for human-powered methods of mobility. By cutting down on the use of motorized vehicles and increasing the number of trips on foot, bike, scooter, or other non-motorized vehicles, North Jersey residents can experience a range of benefits including improved health outcomes, lower environmental impacts, more equitable outcomes for underserved areas, stronger economies, and more tightly knit communities.

The physical and mental health benefits associated with exercise and time spent outdoors are well documented. In New Jersey, approximately one in four New Jersey adults were obese in 2017 and nearly half of the state's adult population is projected to be obese by 2030;<sup>2</sup> providing more opportunities for exercise is critical. Further, getting more people off the road can ease congestion on roadways, reduce emissions, and improve air quality.

Providing active transportation also enhances access. Many people either choose not to drive or are unable to, for physical or financial reasons. Active transportation offers a wider range of people, from children to older adults, the opportunity to safely travel to critical daily destinations, like school, employment, medical facilities, or the grocery store. In turn, local businesses prosper as they receive more foot traffic and vibrant street life.

Safety is another key factor in the creation and implementation of the ATP. The need is strongest among Environmental Justice communities. Nationwide, minority and low income communities are exposed to more hazardous traffic conditions, facing greater risk of injury or death.

Measures to improve active transportation can also play a key role in climate resiliency by providing environmentally-friendly travel options and incorporating stormwater infrastructure to reduce flood risk.

Finally, active transportation is fun. In today's fast-paced world filled with gadgets and screens, many people see the appeal of using active transportation to "unplug." This ATP aims to meet this growing demand.

<sup>1</sup> FHWA. (2019). Bikeway Selection Guide. Retrieved from: [https://safety.fhwa.dot.gov/ped\\_bike/tools\\_solve/docs/fhwasa18077.pdf](https://safety.fhwa.dot.gov/ped_bike/tools_solve/docs/fhwasa18077.pdf)

<sup>2</sup> NJTPA. (2020). Plan 2050 Background Paper: Active Transportation in the NJTPA Region. Retrieved from: [https://www.njtpa.org/NJTPA/media/Documents/Planning/Plans-Guidance/Planning%20for%202050/draft%20final/njtpa\\_activetransportation.pdf](https://www.njtpa.org/NJTPA/media/Documents/Planning/Plans-Guidance/Planning%20for%202050/draft%20final/njtpa_activetransportation.pdf)



# Methods

## What We Did

The ATP is the result of intense research that took place during 18 months and included qualitative and quantitative methods to inform its network and strategy recommendations. Data from a range of sources enabled the ATP to reflect an objective view of the existing transportation network, while enabling transparency and accountability in decision-making. To supplement data, the NJTPA engaged stakeholders and the community in the assessment of the active transportation system and the development of recommendations. This engagement ensured a holistic understanding of on-the-ground-realities and preferences of the regional active transportation network’s desired users—North Jersey residents.

## Data Collection And Analysis

The first step in the development of the ATP was to examine planning resources and existing conditions data that inform a baseline understanding of active transportation needs and goals across the region. Plan development kicked off with a plan and policy review to both develop a fuller understanding of the NJTPA region and to seek out active transportation plan best practices from other regions. In addition, a Technical Advisory Committee (TAC) met throughout the plan development process to share their on-the-ground knowledge of the region’s active transportation conditions, challenges, and opportunities. The TAC was composed of representatives from local and regional agencies, advocacy organizations, and other stakeholders.

### Quantitative Data

Collecting data from a wide range of sources helped to develop the network recommendations. Data sources ranged from census datasets to the NJTPA’s Equity Analysis Tool. Data were cleaned and analyzed, as described in the Findings section of the ATP.

### Qualitative Data

Local input from a variety of stakeholders informed each piece of the ATP. By conducting outreach at major events throughout the region and circulating an interactive webmap and survey, input was received from local governments and the public on routes that need improvement, specific project priorities, and locations of safety concerns for walking and bicycling. This information was used to inform the proposed active transportation network. Meanwhile, speaking with residents about their lived experiences was a crucial step in the development of the Strategy Guide. A series of focus groups was held with community members from underserved demographic groups to elevate their perspectives, in addition to small group interviews with municipal, regional, and community representatives.



Blairstown Township, Warren County





Finally, site visits were held for the case studies included in the ATP. Data collected included a mix of quantitative and qualitative details such as road widths, lanes, speed limits, and daily vehicle volumes, as well as observations on pedestrian and bicycle activity, walking and biking infrastructure, accessibility infrastructure, and street crossings, to supplement datasets.

### Centering Equity

While collecting data, the ATP emphasized equity. This approach recognizes that transportation investments and programs have historically not benefited individuals and communities equally or equitably. Race and income are key demographic characteristics associated with disparities in opportunities to conveniently and safely use active transportation for essential travel. The ATP's strategies and

proposed network were used, to the degree possible, as a tool to reduce the disproportionate economic and health burdens experienced by North Jersey's most vulnerable residents.

The NJTPA puts equity at the center of the ATP using several strategies. These strategies included using geospatial and quantitative data analysis that considered where environmental justice communities—also known as overburdened communities (OBC)—are located, including low-income households, minority residents, and/or limited English proficiency households. Outreach was also conducted at popular events throughout the region to hear from people with diverse perspectives who either are not able to or typically do not choose to participate in traditional planning processes.



# Findings

## Best Practices Review

The ATP included a review of ten existing regional active transportation plans established by other states, MPOs, and regional planning authorities and pertinent peer organizations, which facilitated identification of many best practices to incorporate into the ATP.

## New Jersey Plan and Policy Review

The ATP includes a plan and policy review of the critical active transportation planning work completed within the region and state, identified overlaps in objectives between the region and state, and determined what gaps remain to be filled. Across the 13 related documents reviewed, there was a strong focus on safer people, safer places, safer roads, healthier environments, equitable communities, and strong economies. The overwhelming majority of the documents also highlighted the extent to which local jurisdictions incorporated data-driven methodologies into their active transportation plans throughout the region.

## Trip Potential Analysis

A Trip Potential Analysis helped identify areas of high trip potential (or demand) based on the presence of characteristics that are positively associated with walking and biking trips. These high-demand areas were included as part of the conceptual network as well as areas that may require infrastructure improvements for safer and more comfortable walking and biking.

## Barrier Analysis

A Barrier Analysis identified street segments that pose impediments for biking trips. Barriers include segments that are high-stress for bicyclists and detrimental to active transportation network connectivity. Evaluation of individual street segments helped identify those that are most suitable for proposed network development and maximizing bicycle connectivity.

Several conclusions can be drawn from the analysis:

- The most suitable street segments are almost exclusively confined to the most densely populated communities in each county. The equity weight plays a role as well, since many of the region's larger and more densely populated communities have a high composite equity score based on the NJTPA's Equity Analysis.
- With some exceptions, major roads form the highest stress barriers in the region.
- Less traveled residential streets have the potential to significantly improve low-stress connectivity if certain barriers were removed.
- Separated bicycle facilities have a key role in creating continuous low-stress networks. Adding protected bicycle facilities on existing barrier segments or creating new separated trails parallel to major barriers can dramatically improve connectivity.

## High Crash Network Screening Analysis

An evaluation of high crash locations identified areas that have the greatest need for safety improvements for vulnerable active transportation users. Conducting a network screening analysis (a method that considers crashes as well as other roadway factors that may contribute to future crashes) helped to identify locations in need of safety improvements. In Essex, Hudson, Bergen, and Passaic counties, areas with high walk and bike trip potentials are also likely to experience more crashes. In most counties except for lower Passaic and Essex counties, high-stress barriers are not strongly associated with high bicycle and pedestrian crash locations. The lack of correlation between high-stress and high-crash areas may be attributable to pedestrians and cyclists avoiding those locations due to perceived safety issues.

## Equity Analysis

An equity analysis using the NJDEP's OBC dataset, found that high-stress barriers in Bergen, Passaic, Morris, Middlesex, and Ocean counties are usually also in low-income and minority areas. Areas of high walk and bike trip potentials are usually also in low-income and minority areas that lack safe and convenient active transportation options.

## Engagement Findings

### Pop-Up Public Outreach at Existing Community Gatherings

Pop-up community outreach enabled the NJTPA to meet stakeholders and the public where they already gather, and to solicit input across various demographics and counties. The NJTPA participated in 12 pop-ups at existing large community events throughout the region in the summer and fall of 2022. Attendees completed a survey about their active transportation choices and preferences. They could also pinpoint specific areas that currently provide robust active transportation options, and areas that need improvement, using an online webmap.

### Focus Groups

Three focus groups were held to illuminate the perspectives of people with disabilities, Hispanic, and Black residents. These three demographics were selected based on the NJTPA's goal to gain meaningful input from populations representing historically disadvantaged or underserved communities. The focus groups explored overarching themes about active transportation and travel preferences. Safety concerns posed the greatest barrier to participants engaging in active transportation more often, and encompassed accessible street design, adequate lighting, and concerns about speeding. Sidewalk and path maintenance was another common concern, particularly for participants with disabilities who use wheelchairs or power chairs and face challenges moving across paths that have not been cleared or maintained. Participants across all three groups also noted that many roads do not have sidewalks, limiting options for active transportation.

### Technical Advisory Committee

The Technical Advisory Committee consisted of local and regional agency staff, advocates, elected officials, and other stakeholders across the North Jersey region. These people understand local community needs or obstacles and possess an in-depth technical understanding of active transportation best practices, tools, and strategies. TAC members assisted in the development of the ATP by establishing network development criteria, identifying missing supplemental data for network analysis, highlighting key challenges for active transportation connections, and by providing feedback on the regional active transportation network.

## Project Website, Map, and Survey

The NJTPA created a [project website](#) to solicit public input through a survey and interactive map that was available from June to October 2022. The survey received more than 650 responses. While these responses are not a representative sample of the North Jersey population, they do provide some insight on public priorities regarding active transportation improvements. Many of the 1,600 map responses were clustered in Jersey City, Newark, Hackensack, and Elizabeth. Nearly 80 percent of the segments noted in the map are within or intersect an area identified as OBC. Most respondents noted desired improvements and/or current walking/biking use along local roadways.

### Strategy Guide Small Group Interviews

Four small group interviews with city, county, regional, and state stakeholders helped develop recommended strategies for local active transportation project implementation in subregions and municipalities across North Jersey. Interview attendees described their methods and approaches to successfully implementing active transportation projects. The outcomes from the interviews highlighted several core themes and set the framework for the Strategy Guide. Core themes included:

- Interjurisdictional and multisectoral collaboration
- Building success for active transportation within municipal organizations
- Equity and environmental justice
- Measuring success and data
- Community engagement and outreach
- Funding for active transportation implementation

### Case Study Stakeholder Meetings

Stakeholder identification and engagement were critical in understanding the needs of each of the Case Study locations as well as input on the proposed recommendations. There were two stakeholder meetings held in April 2023 with identified stakeholders. The goal of these meetings was to provide an update on case studies as well as to gather feedback. A summary of participants' discussion and feedback is available here: [Case Studies: Parish Drive in Wayne and Main Street in Stanhope/Netcong](#).



# Recommendations

Recommendations for the ATP include identification of a conceptional regional priority network, policy and program recommendations and case studies, as discussed below.

## Network Recommendations

The regional priority network, presented in the technical memo [Regional Active Transportation Network Recommendations](#), includes recommended routes to accommodate a variety of trip types and users, including local and regional recreation, commuting, and other local transportation trips for people walking and biking. This network comprises the geographic distribution of infrastructure recommendations for the ATP.

## Conceptual Network

A conceptual network provides a framework for expanding active transportation opportunities throughout the region. Local jurisdictions are primarily responsible for building and maintaining active transportation infrastructure. NJTPA staff can work with local jurisdictions and other stakeholders to coordinate and provide technical support as appropriate as projects are selected for further study, funding, and implementation.

A conceptual network helps make the financial and political case for the type of local-level interventions that will be needed from one jurisdiction to the next. Building consensus around a shared vision for active transportation in North Jersey lays the groundwork for productive conversations about implementation going forward.

## Regional Network and Local Networks

The regional network aims to provide the backbone for intermunicipal connections across North Jersey. It supplements recommendations for active transportation infrastructure from local active transportation plans. Local jurisdictions should continue to update and develop their own plans to improve local roads that align with and contribute to the regional network's connectivity as it is implemented.



City of Paterson, Passaic County

## Connecting Communities on Low-Stress Routes

Connections between communities should be a central focus. Many of the proposed routes between communities are currently on high-stress roads. These roads would need substantial improvements to convert them to low-stress routes that are comfortable for people of all ages and abilities. In some cases, existing parallel low-stress routes could serve as primary active transportation corridors and would require fewer changes. These corridors may take the form of shared use paths and trails that are comfortable for users of all ages and abilities, or separated facilities that follow existing roads—such as separated bike lanes, sidepaths, and sidewalks—that provide a high degree of comfort to users as well as direct access to important

destinations. In cases where traffic volumes and speeds are low, paved shoulders or signed routes may provide accommodation for most riders.

## Policy and Program Recommendations

The [Strategy Guide](#) is an ATP component that provides recommendations on active transportation network implementation with a set of recommended strategies. The strategies are based on several inputs:

- Recommendations from municipal, county, regional, and community representatives who have successfully implemented local active transportation projects.
- A national scan of other Metropolitan Planning Organization (MPO) active transportation planning principles and best practices that are relevant to the NJTPA region's transportation system, built environment, and regulatory context.

The Strategy Guide includes six recommended strategies for county and local jurisdictions to advance active transportation, with 29 supportive actions. Overarching strategies are listed below.

- Capacity Building
- Interjurisdictional and Multidisciplinary Collaboration
- Equity and Environmental Justice
- Data Collection
- Multimodal Connections to Transit
- Community Engagement and Outreach
- Funding for Active Transportation Implementation



City of Hoboken, Hudson County



## Case Studies

Active transportation corridor case studies were conducted along two representative corridors through an illustrative planning process that involved site visits, research, and stakeholder coordination to inform appropriate recommendations for enhancing active transportation.

The case studies were:

- Parish Drive in Wayne Township (Case Study 1)
- Main Street in the Borough of Stanhope and Netcong (Case Study 2)

As presented in the [Case Studies Memorandum](#), the case studies embody many of the challenges and opportunities that other communities across the region encounter when it comes to implementing successful active transportation projects and promoting livability, Complete Streets, and safe multimodal travel.

Each case study includes a review of relevant policy documents, existing conditions, and contextual factors such as surrounding land use and community demographics. The memo includes conceptual renderings that provide high-level recommendations for infrastructure improvements and program and policy solutions that cross-reference the Strategy Guide.

A third case study includes an analysis of network overlaps with highway interchanges throughout the region and best practices for active transportation facility design at these locations. This is presented in the technical memo [Active Transportation Facility Design at Highway Interchanges](#).

## Next Steps

The NJTPA will promote the ATP among regional partners and provide continued encouragement and support for local government agencies and elected officials across the region to coordinate on implementing the plan.

Given the many counties and neighborhoods included within the ATP, broad support is necessary to make impactful change. Residents and businesses can show their support for the ATP by reaching out to their local representatives and requesting that they help implement the ATP's strategies and recommendations.





**Above: Existing Conditions on Mountainview Boulevard**  
**Below: Proposed two-way separated bike lane on Mountainview Boulevard**







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