TOWNSHIP OF TOMS RIVER

BACKGROUND REPORT FOR BICYCLE & PEDESTRIAN PLAN

NOVEMBER 2019

NVS

STOKES
Creative Group, Inc.

Acknowledgments

The project team would like to recognize and express appreciation to the numerous individuals who contributed information, attended a meeting or workshop, sent in a comment, or otherwise participated in the development of the Toms River Township Local Technical Assistance Project.

Special thanks to the Steering Committee for their time and on-going commitment to making Toms River Township a safe and enjoyable place for walking and bicycling.

Project Team

The Office of Bicycle and Pedestrian Programs, New Jersey Department of Transportation & the Township of Toms River.

With

NV5 And STOKES Creative Group, Inc.

Steering Committee

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George Wittmann, Council Member, Council Vice Chairman

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Louis Amoruso, Public Works Department, Director

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Thomas F. Kelaher, Toms River Township, Mayor

Photos: Stokes Creative Group, Inc.

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Background

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The Township aims to refine its vision for bicycle and pedestrian travel throughout Toms River and prioritize safety enhancements needed to realize the vision. The plan will:

- Develop and build consensus for a Community Vision for bicycling and walking in Toms River
- Evaluate the Township's bicycle & pedestrian network, identifying needs and opportunities focusing on access to key destinations, the town center and the developing River Walk Trail
- Identify a Priority Bicycle and Pedestrian Network (focused on the mainland portion of the Township), including both on- and off-road opportunities
- Develop typical improvement concepts, focused on major linkages to the town center and developing River Walk Trail

Vision

The vision for the Toms River Bicycle and Pedestrian Plan was developed during two visioning workshops and with input from the Township and the Steering Committee. This community vision with regards to walking and bicycling will guide the development and implementation of this plan:

"Toms River is a community with an "All Ages and Abilities" bicycle and pedestrian network that is not only safe, scenic, comfortable, and convenient but also environmentally friendly and connected to the neighboring municipalities. Toms River actively develops, builds, and maintains a transportation network that encourages its residents and visitors to walk and bicycle to key destinations in the Township for transportation, recreation, and fitness."

Goals

The goals of the Toms River Bicycle and Pedestrian Plan were identified through outreach with the community. The goals are as follows:

Safety:
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Environmental:
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Regional Connectivity:
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Education:
Education: Educate all users on their rights & responsibilities when traveling on roads & trails

Planning Process and Community Outreach

The planning process included a desktop evaluation of existing roadways, and bicycle and pedestrian infrastructure, and a review of previous studies and existing data to establish an understanding of current bicycling and walking conditions. Township and County officials were involved throughout the process.

Engaging the Toms River community throughout the project was a key component of the planning process. The community provided feedback on the vision and goals and provided the foundation for the plan's recommendations, including identifying key destinations, barriers, and preferred routes for bicycling and walking.

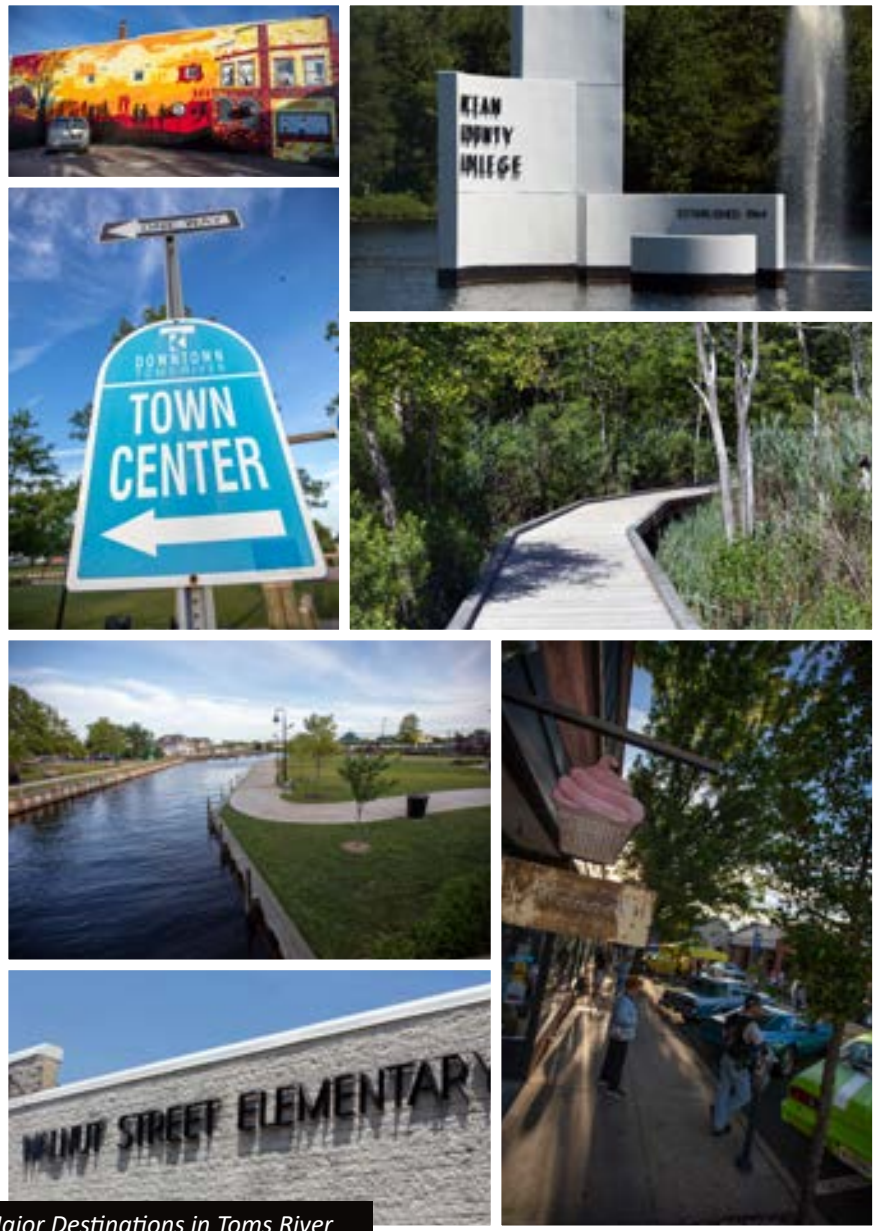
Outreach Plan

Toms River Township, NJDOT, and the consultant team developed an outreach plan to best involve the Toms River Community. A combination of online and in-person activities were held at specific stages of the project. A Steering Committee that was identified and approved by the Township was involved regularly and played an important role in developing the plan.

Existing Conditions and Analysis

An assessment of the existing conditions in Toms River was conducted, the plans reviewed, and the data analyzed that inform the recommendations of this plan.

The existing conditions and analysis and outreach efforts helped develop an understanding of the major opportunities / constraints and key destinations related to walking and bicycling in Toms River.



Major Destinations in Toms River

BICYCLE & PEDESTRIAN PLAN
Township of Toms River

COMMUNITY SURVEY

TOP 3 CONCERNS

WALKING
1. Unsafe roads/speeding vehicles
2. Lack of sidewalks
3. Limited/inadequate pedestrian crossings

BIKING
1. Safety due to high speed/traffic
2. Unsafe highway crossings/intersections
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TOP 5 PRIORITY INVESTMENTS

1. Improve crossings of major streets
2. Walking / biking connections to major parks and trails
3. Maintaining road surfaces
4. Completing the sidewalk network
5. Protected on-road bicycle facilities

~92 Survey Responses

70% Responded

"Very Important to Improve Walking & Bicycling Conditions"

VISIONING WORKSHOPS

~40 Toms River community members attended the two Visioning Workshops held in February, 2019

~50 Map markups and comments about destinations, preferred routes and barriers for bicycling and walking

~100 Comments and votes on the Toms River Bicycle & Pedestrian Plan VISION/ GOALS and ACTIONS/ STRATEGIES

PUBLIC INFORMATION CENTER

~100 people visited the Public Information Center

Major Takeaways

1. Downtown area (connections to Winding River Trail & Cattus Island Park) identified as a priority
2. Potential pedestrian bridge over Rt 37 received several top priority votes
3. Several recommended segments throughout Toms River were endorsed

WIKIMAPPING

~40 CURRENT walking & bicycling routes

~25 DESIRED walking & bicycling routes

~25 UNSAFE walking & bicycling routes

~20 Barriers/Unsafe Intersections Identified

~54 Destinations Highlighted

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~40 Community Members signed up for regular website updates over the course of the project

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"Please improve pedestrian crossings over Rt. 37 & make a walkable way to Island Beach State Park."

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"If you build it, they will come."

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STOKES Creative Group, Inc.

Priority Bicycle & Pedestrian Network

Based on the results of the public outreach (Public Visioning workshops, surveys, Wikimapping, Public Information Center), Steering Committee feedback, field visits and data collection, a preliminary bicycle and pedestrian network was identified to realize Toms River's vision – an "All Ages and Abilities" network that can be achieved in 10 years with a focus on off-road facilities.

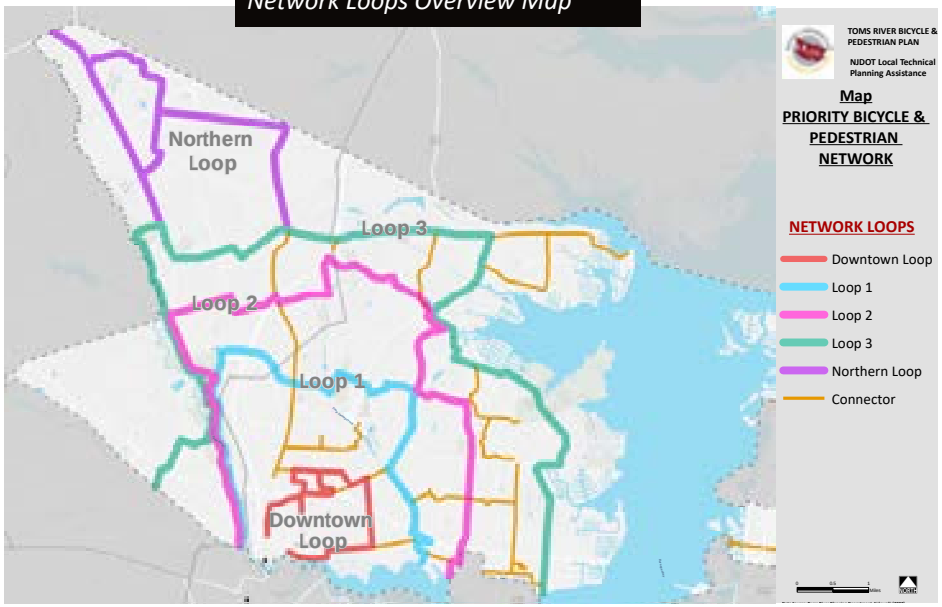
The preliminary network was refined further based on feedback from the Steering Committee and from the public events. The network focuses on connecting Winding River Trail, downtown, Cattus Island and the waterfront to destinations throughout Toms River Township including schools, parks, commercial areas, senior centers, Ocean County College and residential areas. Key connector routes that will serve as connections between the network loops. (See Network Loops Overview Map) The following network loops were identified as a result of extensive outreach and data collection efforts:

- Downtown Loop (includes a downtown grid)
- Loop 1 – Bey Lea - Money Island Beach
- Loop 2 – Whitty Road – Ocean County College
- Loop 3 – Winding River Park - Cattus Island Park
- Loop 4 – Northern Tier
- Connectors

Pedestrian Network Improvements

It is recommended that the Township works towards eliminating sidewalk gaps along the priority bicycle and pedestrian network. A complete sidewalk network is one of the most important element for creating a safe and accessible walking environment. Safe street crossings should also be prioritized including adding high-visibility crosswalks, mid-block crossings, curb extensions etc. Amenities such as benches, landscaping, and lighting can improve the public realm for walking and biking. A detailed sidewalk inventory was not included in the scope of work and pedestrian network analysis is based on the inventory developed by the Township in 2008.

Network Loops Overview Map



A safe and welcoming walking and bicycling environment requires more than just the presence of facilities and amenities. Education, encouragement, enforcement, and evaluation and planning measures are needed to support and complement the engineering recommendations. Programmatic non-infrastructure recommendations complement the facility type recommendations and address unsafe behaviors, the development of bicycling skills, general awareness and support for walking and bicycling, and tracking strategies to guide future improvements.

Bicycle Network Improvements

The recommended facility types are the ***minimum recommended bicycle facilities*** that can be accommodated based on an analysis of available roadway speed, volume, width and context. Upon further study of the available right-of-way, the facility types can be upgraded to a higher level of accommodation along all of the roadways. For example, bicycle lanes can be converted to buffered or protected bicycle lanes, protected bicycle lanes can be converted to shared use path.

The majority of the recommended facility types fit within the existing right of way and do not require street widening or taking of private property. For the on-road facilities, lane diets (reducing lane widths) and road diets (reducing one travel lane), and speed reductions are recommended as needed. Shared-use paths were recommended on busy, high-speed and high–volume roadways where on-road facilities were not recommended as per the NJDOT C*omplete Streets Design Guide.* The proposed network connects to existing/proposed/planned trails in Toms River to maximize off-road connectivity.

Sample Typologies

Based on public and Steering Committee input, sample typologies were developed for each recommended facility type. These typologies illustrate how suggested treatment and facility type recommendations can be applied to a existing streets within the Township. Each typology includes a design standards, benefits and considerations for the specific facility type. In addition, sidewalks are recommended along the proposed network links with on-road bicycle facilities.

Implementation and Funding

The proposed bicycle and pedestrian network recommendations identified in the previous section are considered "planning level" and are intended to be used as a guide; further analysis will be required during the design phase. The Toms River Bicycle and Pedestrian Plan provides a starting point to prioritize improvement strategies. It may require updates as the surrounding context changes and as the trade-offs are justified and shared with the community. The following actions can be undertaken to implement the recommendations of this plan:

- Adopt the plan as a subsection of the Toms River Master Plan Circulation Element
- Develop initial concepts of the recommendations in the plan based on more detailed data collection, analysis, survey, community preference and coordination with Ocean County where needed
- Consider conducting “pilot” projects / temporary installations to test recommendations and gather community feedback
- Obtain funding for the recommendations

The County should be notified and involved with any bicycle and pedestrian facility on County roadways as per the Ocean County Multi-Modal Transportation Policy Guidelines.

The minimum recommended facility type should be utilized in conjunction with the Typical Units Costs & Implementation Matrix, which includes an average unit cost for facility types. The matix also identifies typical costs, jurisdictional responsibility and timeline for completion. Bicycle and pedestrian improvements should be coordinated with scheduled road construction and can be part of larger streetscape and roadway improvements. Street resurfacing and restriping projects can be seen as opportunities to stripe on-street bicycle facilities, and crosswalks.

A general compilation of funding sources that have been, or could be used to fund improvements in Toms River is included in the report.

INTRODUCTION

Who walks or rides a bike?

Pedestrian:

A person who travels on foot or with a wheelchair

Bicyclist:

There are many types of pedestrians and bicyclists with different intentions, needs, and abilities

CHAPTER 1: INTRODUCTION

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Why walking & bicycling?

Improving opportunities for walking and bicycling brings a multitude of benefits to the community. The following excerpts from the *New Jersey Bicycle & Pedestrian Master Plan (2016)* articulates why walking and bicycling is important for everyone.

Walking and bicycling are healthy

Active transportation encourages physical activity and is an important step that people of any age can take to improve their health and lower the risks of heart disease, stroke, type 2 diabetes, depression, obesity, and some cancers.*

*: *United States Centers for Disease Control and Prevention. (2016).*

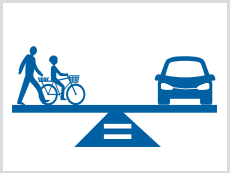
Walking and bicycling contribute to the economy

Businesses, events, and infrastructure related to active transportation contribute significantly to New Jersey's economy and have been estimated to general over $497 million annually.*

*: *Brown, C., & Hawkins, J. (2012).*

Walking and bicycling promote equity

High quality pedestrian and bicycle facilities break down barriers to mobility for those without the option to drive. Walking and bicycling are affordable modes that can provide safe access for all people to schools, jobs, economic centers, transit, parks, and other destinations.



Walking and bicycling are good for the environment

Walking and operating a bicycle are emissions-free activities that help keep the environment and the atmosphere clean and quiet. On the large scale, increases in walking and bicycling can lead to significant decreases in the use of fossil fuels, carbon emissions, and air pollution.

Walking and bicycling improve access to schools

The Safe Routes to School Program helps children of all abilities realize the many benefits of walking and bicycling to school. By doing so, young people can experience reduced traffic in the vicinity of schools, safer streets, and regular physical activity.

Walking and bicycling improve access to transit

Walking, bicycling, and public transit can be linked together to form multi-modal commuting trips that reduce traffic and emissions and encourage physical activity.

Source: New Jersey Bicycle and Pedestrian Master Plan, 2016
https://www.state.nj.us/transportation/commuter/bike/pdf/bikepedmasterplan2016.pdf

Walking and bicycling are good for personal finances

Walking and bicycling are significantly less expensive than personal car ownership annually.

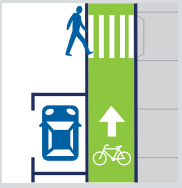
Walking and bicycling facilities are fiscally attainable

Most pedestrian and bicycle infrastructure projects and facilities are extremely low-cost in comparison to overall roadway infrastructure.* Federal surface transportation law offers flexible funding opportunities from a wide variety of transportation programs that can be used for bicycle and pedestrian projects."**

*: *Bushell, M., Poole, B., Zegeer, C., Rodriguez, D. (2013).*
**: *United States Department of Transportation. (2010).*

Walking and bicycling are at the heart of Green, Smart, and Complete Streets

They are central to the understanding that roadways are public facilities that should serve travelers of all ages and abilities, increase safety, accommodate non-motorized travel, reduce energy inputs, and mitigate environmental harm.



Walking and bicycling are growing in acceptance and preference

They are more than a form a recreation; they are viable modes of transportation and commuting. The Millennial generation is noted for decreased driving rates and increased walking, biking, and transit use.*

*: *United States Public Interest Research Group. (2014).*

Walking and bicycling contribute to placemaking and quality of life in New Jersey

Comfortable and accessible pedestrian and bicycling environments offer alternatives to personal vehicles. The increase of social interaction and development of the public realm through pedestrian and bicycling improvements contribute to an improved quality of life and a sense of identity and place.

Plan Organization

Chapter 1 Introduction:
Provides an introduction to the project, vision and goals of the plan.

Chapter 2 What we heard:
Summarizes the outreach conducted and community input collected through the plan's public engagement process.

Chapter 3 Existing Conditions & Analysis:
Provides an overview of the existing conditions and analyses undertaken that are relevant to the bicycling and walking conditions in Toms River.

Chapter 4 Recommendations:
Identifies the recommended bicycle and pedestrian network, concept typologies and recommendations.

Chapter 5 Making it Happen:
Focuses on implementation and funding including an implementation matrix and list of potential funding sources.

Appendices

WHAT WE HEARD

CHAPTER 2: WHAT WE HEARD

Planning Process and Community Outreach

The planning process included a desktop evaluation of existing roadways, and bicycle and pedestrian infrastructure, and a review of previous studies and existing data to establish an understanding of current bicycling and walking conditions. Township and County officials were involved throughout the process.

Engaging the Toms River community throughout the project was a key component of the planning process. The community provided feedback on the vision and goals and provided the foundation for the plan's recommendations, including identifying key destinations, barriers, and preferred routes for bicycling and walking. This section provides a summary of the online and in-person outreach. A detailed summary of public engagement efforts can be found in Appendix 1: Community Outreach.

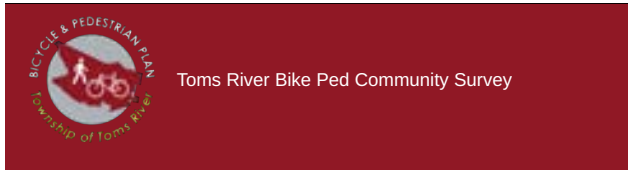
Outreach Plan

Toms River Township, NJDOT, and the consultant team developed an outreach plan to best involve the Toms River Community. A combination of online and in-person activities were held at specific stages of the project. A Steering Committee that was identified and approved by the Township was involved regularly and played an important role in developing the plan.

Online engagement

The following tools were used to engage the community online:

- PROJECT WEBSITE: A project website was developed to introduce the project, provide updates, and host additional online tools listed below:
  - PROJECT WIKIMAPPING: A project Wikimapping site was developed to allow the community to spatially identify key destinations, preferred walking and biking routes, and problem locations.
  - COMMUNITY SURVEY: A community survey was developed to assess support and interest in walking and bicycling in Toms River. The survey also assessed the community's priorities for future transportation investment in Toms River Township. Paper copies of the community surveys were available during the in-person visioning workshops and at Town Hall (See Appendix 2: Community Survey Results).



We want to improve walking and bicycling in Toms River Township. Please fill out the following survey and accompanying WikiMap to help us understand the walking and cycling environment in Toms River and your thoughts on how to improve it. (Answers will remain confidential)

* 1. How do you primarily commute to work or school? If you use multiple modes, select all that apply?

- Drive alone
- Carpool
- Train (NJ TRANSIT)
- Bus (NJ TRANSIT, Ocean Ride)
- Bike
- Walk
- I use multiple modes to get to work
- Other

* 2. How do you primarily get around Toms River when you are not working or at school? If you use multiple modes, select all that apply?

- Drive
- Bus (NJ TRANSIT, Ocean Ride)
- Bike
- Walk
- I use multiple modes
- Other

In-person engagement

In-person meetings included two visioning workshops held in different parts of the Township to gather initial input, and a Public Information Center held during the Toms River Food Festival to present preliminary recommendations.

Visioning Workshops

The project team facilitated two Visioning Workshops for the Toms River Bicycle and Pedestrian Plan in February 2019. A total of 36 participants attended the workshops. The goal of the visioning workshops was to introduce the project to the community, begin to develop a community vision, present the online outreach tools, and identify problem areas, issues, and opportunities related to pedestrian and bicycle travel in Toms River Township.

The workshops were held open house format. The materials were organized into three stations for gathering input.

Station # 1: Welcome/Introduction/Survey
Station # 2: Bicycle/Pedestrian Planning 101 and Vision/Goals
Station # 3: Existing Conditions and Mapping Exercise

Public Information Center

NV5 facilitated the Toms River Bicycle and Pedestrian Plan Public Information Center on Saturday 5/4/2019. The meeting was held as part of the Toms River Food Festival from 1:00 – 3:00 pm. The project team set up a booth/ tent along Washington Street alongside vendors and government groups. This venue helped to maximize input and diversify participants beyond those who would typically go out of their way to attend an independent transportation enhancements project information center.

The purpose of the meeting was to solicit feedback and help to build consensus for the bicycle and pedestrian facility network and begin to identify priorities for a phased implementation plan. Refined network mapping and typical concepts were the focus of the Public Information Center. The project team set up an activity table for kids with a safety quiz and other activities to involve the kids and to encourage parents to participate and provide feedback.

COMMUNITY SURVEY

TOP 3 CONCERNS

WALKING

1. Unsafe roads/speeding vehicles
2. Lack of sidewalks
3. Limited/inadequate pedestrian crossings

BIKING

1. Safety due to high speed/traffic
2. Unsafe highway crossings/intersections
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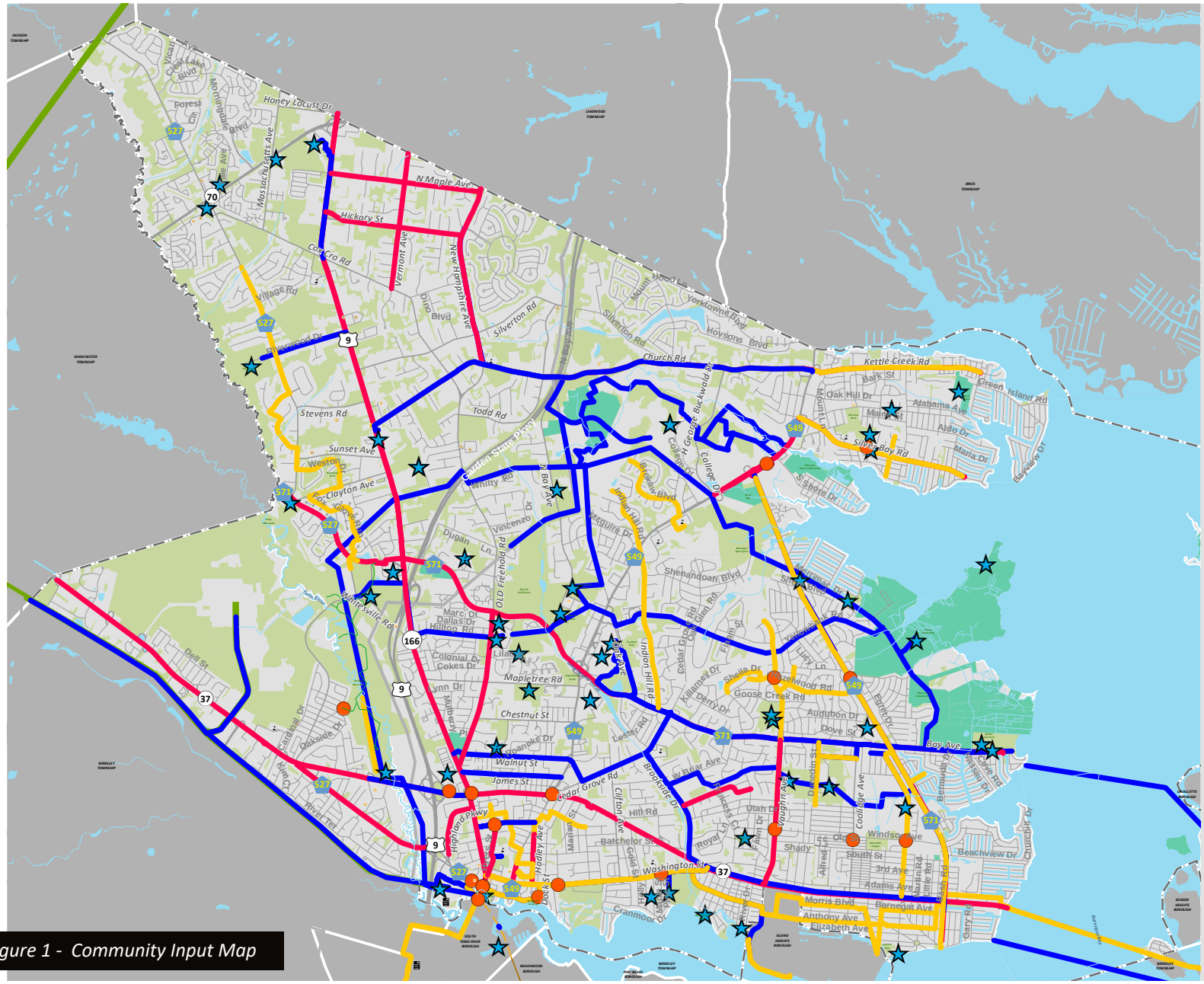


Figure 1 - Community Input Map

EXISTING CONDITIONS


Washington St
DOWNTOWN
TOMS RIVER
PARKING
TOWN HALL
LIBRARY
COUNTY OFFICES
CRAVE

CHAPTER 3: EXISTING CONDITIONS

Overview

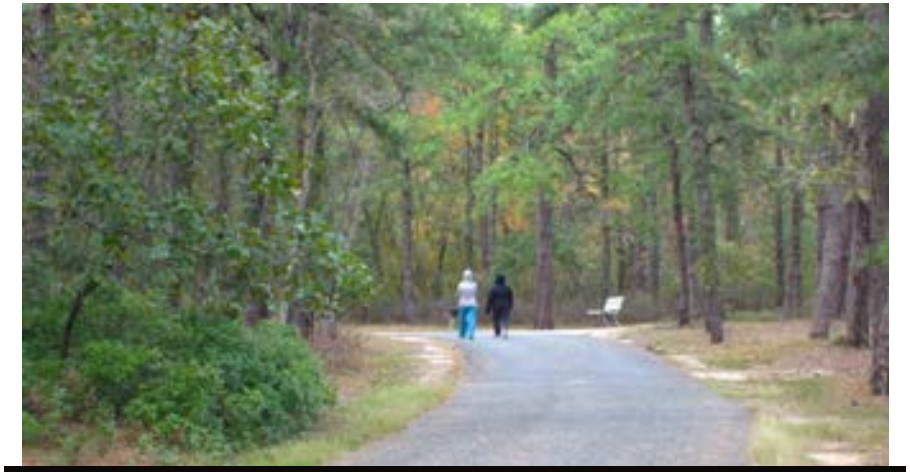
This section includes a summary of the existing conditions in Toms River, the plans reviewed, and the data analyzed that inform the recommendations of this plan (See Appendix 3: Resource Inventory). The project team primarily reviewed the following information:

- Existing bicycle and pedestrian infrastructure through data collection, desktop analysis, and field evaluation
- Planning studies by the Township of Toms River and other agencies including the *Toms River Master Plan & Elements*, *Downtown Circulation Neighborhood Plan, and US 9 Corridor Study*
- Census data to get a better understanding of demographics and commuting patterns
- Crash data from NJDOT crash records processed by the New Jersey Department of Highway Traffic Safety (NJDHTS) crash tool (Numetric) to identify high crash corridors and intersections

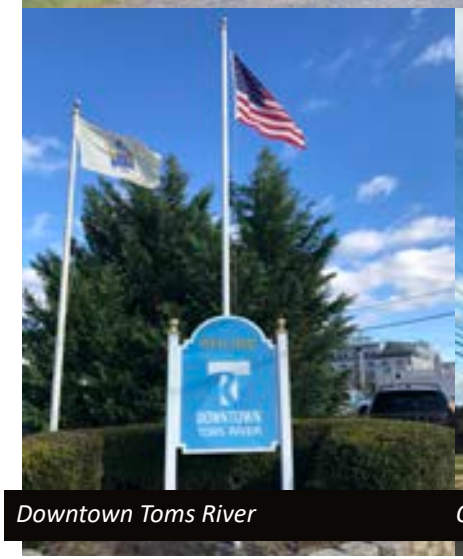
Introduction

Toms River Township is located in the northeastern portion of Ocean County near Barnegat Bay. Most of the Township is located on the mainland with two areas on the barrier island (Ortley Beach and Dover Beaches). Additionally, the Township serves as the county seat and is the 8th most populous municipality in New Jersey.

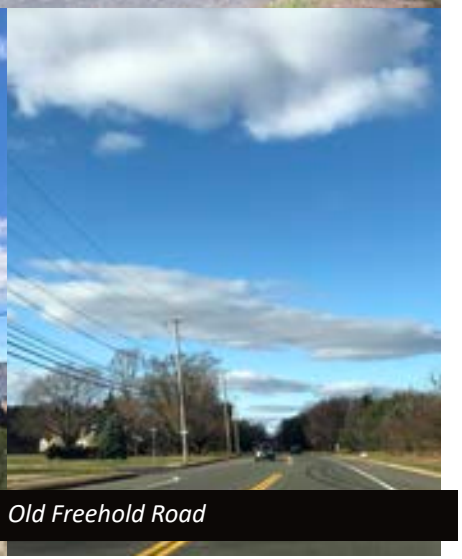
Originally called Dover Township, Toms River has developed from a small fishing village, a flourishing seaport, an agricultural community and a popular summer vacation destination to a year-round residential community with an active downtown.



Winding River Park



Downtown Toms River



Old Freehold Road

Context

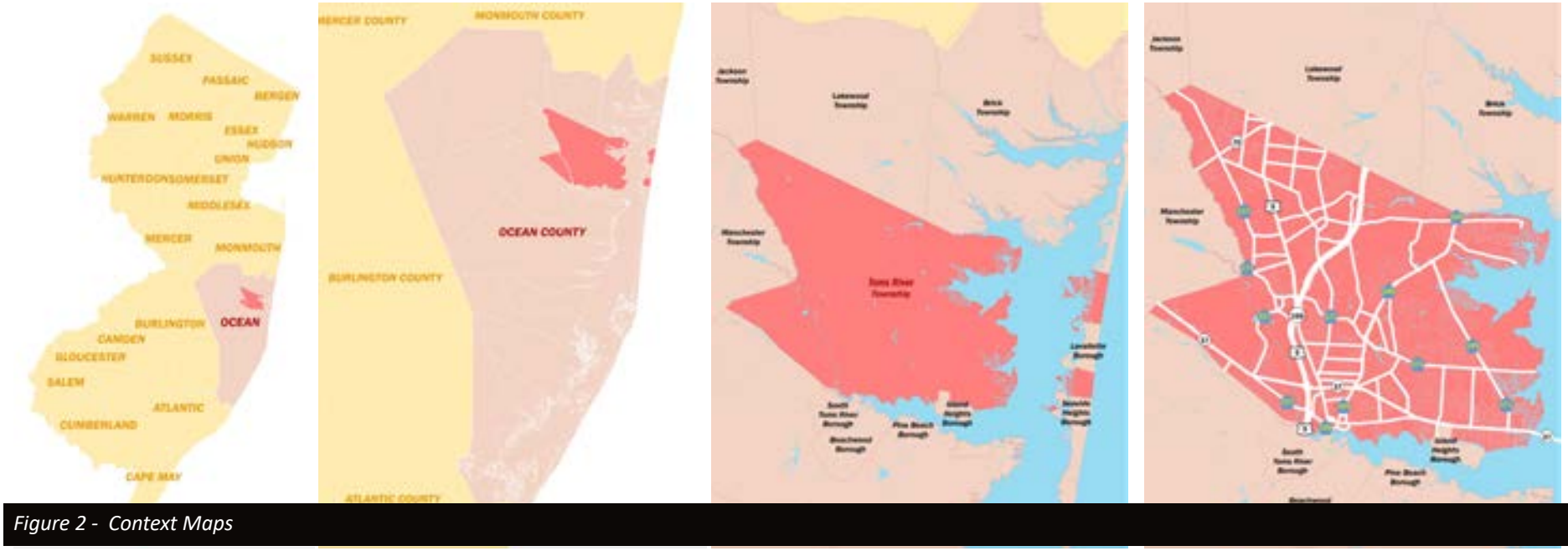
Regional Context

Toms River Township is located in Ocean County, New Jersey, along Barnegat Bay. The Township is bordered by Berkeley Township, South Toms River Township, Beachwood Township, Pine Beach Township and Island Heights Borough to the south; Manchester Township to the west; Jackson Township, Lakewood Township, and Brick Township to the north; and Lavalette and Seaside Heights to the east (see *"Figure 2 - Context Maps"*).

Land Use & Downtown

Similar to many New Jersey suburban municipalities, Toms River Township has residential neighborhoods separated by state and county highways with commercial areas, which makes walking difficult and requires automobiles for daily trips. Recently the Township has improved upon its policies to focus more on improving bicycling and walking conditions (see *"Figure 3 - Land use Map"*)

The Township's downtown has an active Business Improvement District (BID) that is focused on promoting and encouraging the economic revitalization of the downtown. The downtown currently offers diverse activities including river boat cruises, concerts, street festivals, dining options, and a variety of shopping options. The Ocean County Library and local museums and galleries in the downtown offer cultural experiences.



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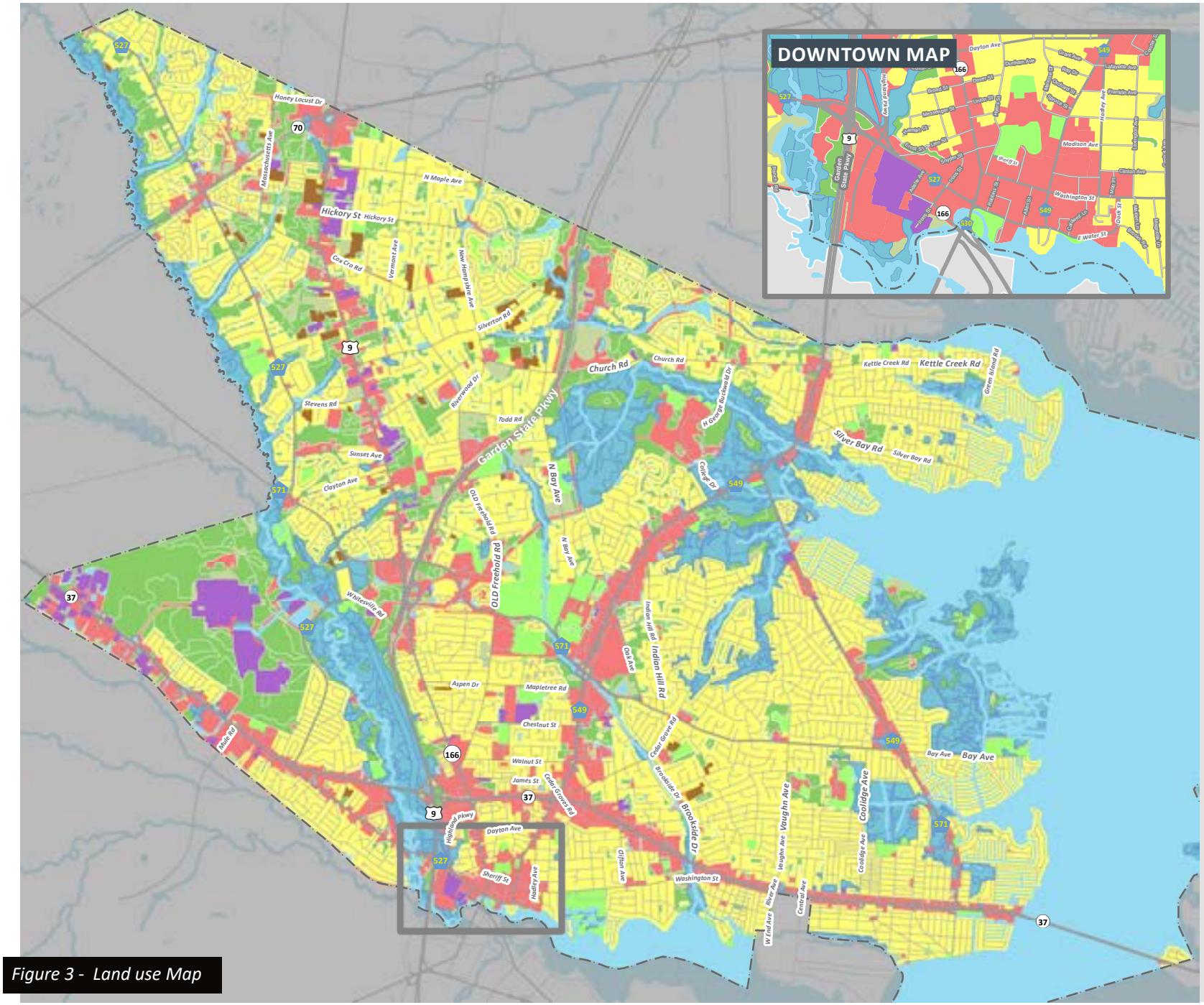


TOMS RIVER BICYCLE & PEDESTRIAN PLAN

NJDOT Local Technical Planning Assistance

Existing Land Use Map

Land Use

- Wetlands
- Commercial/Developed Area
- Water
- Recreational
- Transportation
- Agricultural
- Open Space/ Shrubland
- Forest
- Industrial
- Residential

Figure 3 - Land use Map

Who lives in Toms River?

The project team utilized US Census American Community Survey (ACS) data from 2012-2016 to identify demographic characteristics and commuting trends for the Township. A summary of this analysis can be seen in *"Figure 4 - Toms River Township: Overview Demographics"*.

Population & Households

According to the Census Bureau's Population Estimates Program, the official population of Toms River is 91,133 as of 2016 data. From 2012 to 2016, the population in Toms River decreased slightly by 0.9% to 9,868 persons. The population density of the Township is 2,609 persons per square mile. According to the ACS (American Community Survey) 2016, the average household size in the Township is 2.58 persons per household, which is lower than Ocean County's household size of 2.70. There are 34,760 households living in the Township and 43.8% of the family households have one or more people under 18 years and almost 32% have one or more people 65 years and over.

Race

An estimated 90% of the Township's population is White, 2.6% is African-American, and 3.9% is Asian, according to the 2012-2016 ACS. Among all races, a small portion of the population (8.1%) identified their ethnicity as Hispanic/Latino. Toms River has an almost equal percentage of non-white residents (10%) as Ocean County as a whole (8.3%). Additionally, 8.5% of the County's population is foreign-born, which is less than New Jersey's foreign-born population (23%). More than 11% of the Township's population speaks a language other than English at home and 9.2% are foreign born.

Age

The 2016 ACS identifies the Township's median age as 43.8 years, which is slightly above that of the County's overall median age (42.8). A little over 5% of the Township's population are under 5 years old, 3.7% is school-going (5-17 years), and 19.2% are seniors (65+ years).

Income & Poverty

As per the 2016 ACS, the median household income in the Township is $72,180, which is less than 1% higher than the median household income in 2012. Based on the 2016 ACS, the Township's median household income is higher than the County's median household income ($63,108) and slightly lower than the median household income of New Jersey ($73,702). About 11.2% of the County's population have an income below the poverty line, which is higher than the Township's 6.8% with an income below the poverty line.

Disability Status

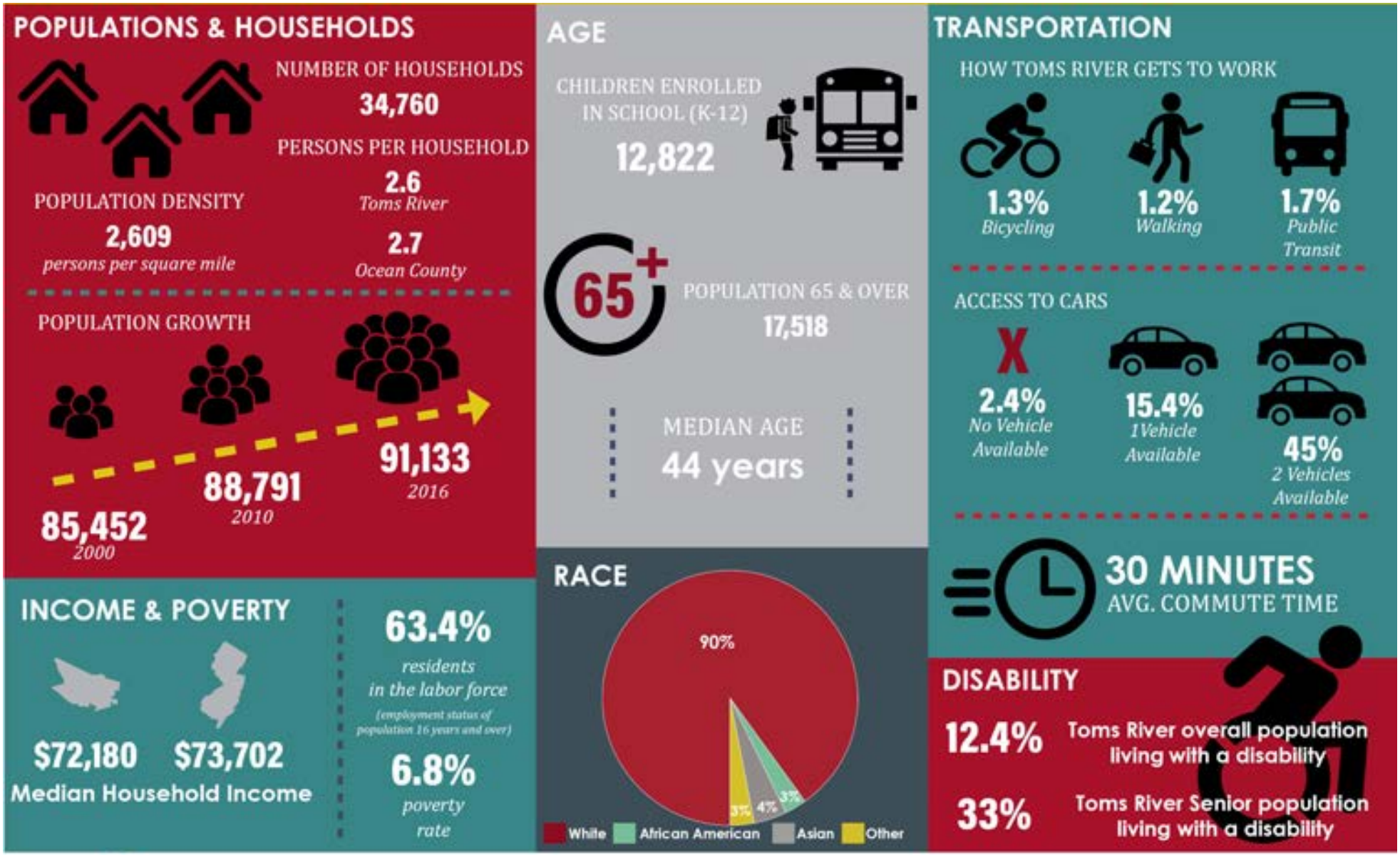
As per the 2012-2016 ACS, 11,118 people or 12.4% of the Township's population (civilian non-institutionalized) have disabilities, which is higher than the State's (10.4%) and the County's (13.4%) population with disabilities. Of the population with disabilities, less than 6% of are under 18 years and more than 70.9% are seniors over 65.

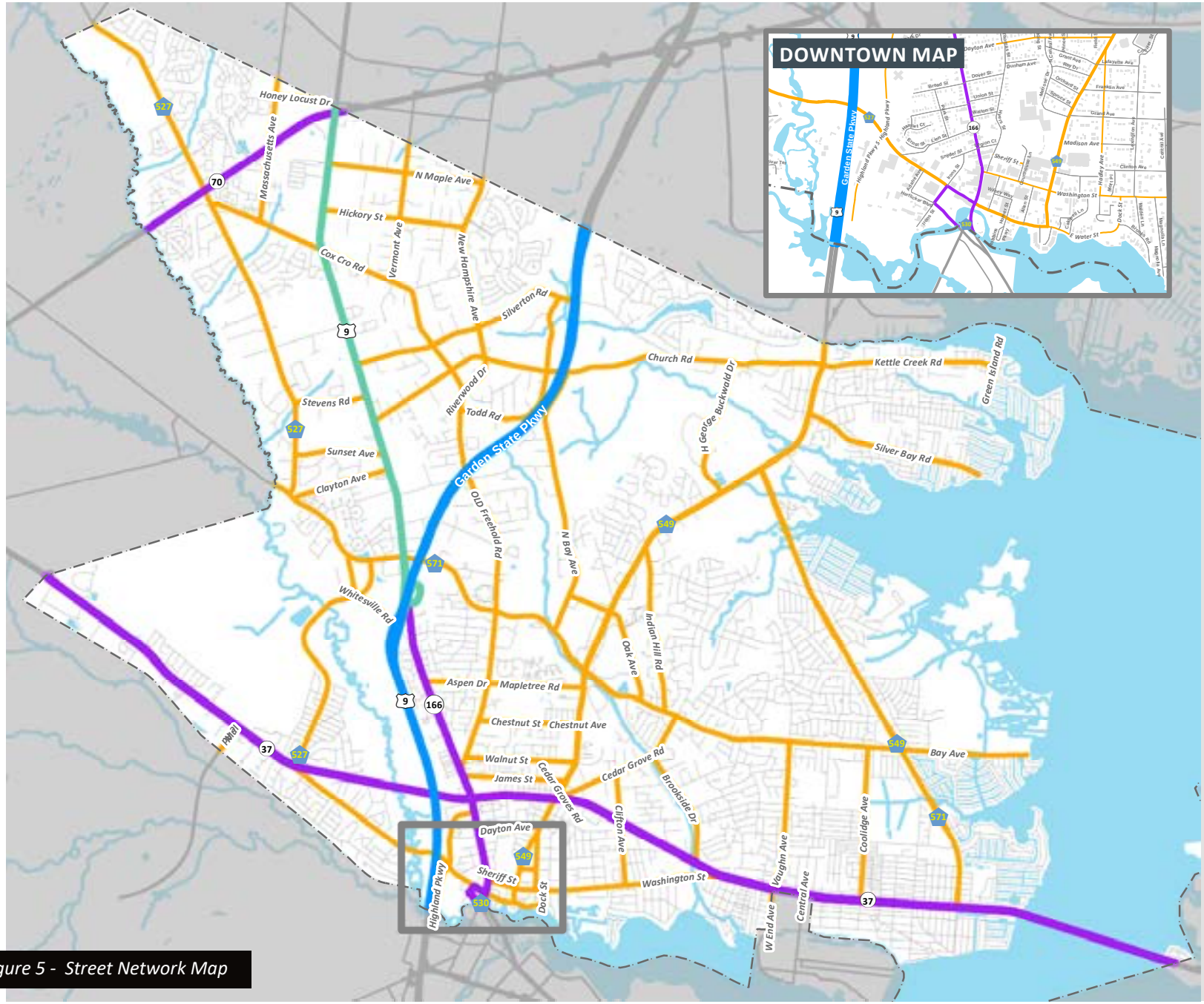
Travel Characteristics

According to the 2012-2016 ACS data, of the 46,947 workers (16 years and older) in the Township, 1.7% use public transportation to work, 1.2% walked to work, and 1.3% bicycled to work. In comparison, in Ocean County, 2% took transit to work, 1.7% walked to work and 0.3% bicycled to work. The mean commute time to work was 30.3 minutes for the Township and 30.7 minutes for the County, per the 2016 ACS. More than 12% of the Township's workers commute for less than 10 minutes to work, and another 31.3% commute for 10-20 minutes to work.

Per the 2012-2016 ACS, 2.4% of the workers (16 years and over) do not have cars available. This is marginally lower than the County, where 2.6% of the workers do not have cars.

Figure 4 - Toms River Township: Overview Demographics





TOMS RIVER BICYCLE & PEDESTRIAN PLAN

NJDOT Local Technical Planning Assistance

Street Network Map

Road Class

- Highway Authority Route
- Interstate
- US Highway
- State Highway
- County Route
- Local Road

0 0.5 1 Miles

NORTH

Figure 5 - Street Network Map

Roadway Network

The Township has major roadways that divide the Township. Garden State Parkway, Route 9, Route 37 and Route 70 are the major state and interstate roadways and account for 10% of the roadway network. More than 15% of the roadway network are County roadways. Route 571, Route 549 (Hooper Avenue), Route 527 (Whitesville Road), Fisher Blvd (Route 571/549) and Bay Avenue (Route 27/571) are the main County roadways. See *"Figure 5 - Street Network Map"*.

Like many suburban communities, the roadway network is made up of minor arterials and major connectors that provide automobile-oriented access to the Township's major destinations. See *"Figure 6 - Roadway Functional Class Map"*.

Transit

A park and ride facility is located in downtown near exit 81 of the Garden State Parkway. Current bus services include NJ Transit, Academy and Ocean Ride. NJ Transit routes are mostly along Route 9 and Garden State Parkway.

Ocean Ride operates four bus routes through Toms River Township with a fixed schedule. Senior residents (60+ years) and people with disabilities can use the Reserve-A-Ride service for any of the Ocean Ride bus routes.

The park and ride facility has parking spaces, bicycle racks, and lockers that are managed by the Toms River Parking Authority under contract with NJ Transit and NJDOT. See *"Figure 7 - Transit Map"*.

While the bus service does connect major destinations such as the County Complex, Ocean County Mall and College, there are many retail areas and residential areas that cannot be accessed via public transit.

There is no rail service presently in Toms River Township except for a freight spur that connects to the Ciba Giegy Tom River Chemical Plan. The Township is in favor of a proposal to introduce a rail passenger service, MOM - Monmouth Ocean Middlesex - that would serve Monmouth, Ocean, and Middlesex County that would connect to the Northeast corridor and would serve to expand rail service and reduce congestion in this part of New Jersey.

Example of typical County road - Old Freehold Road

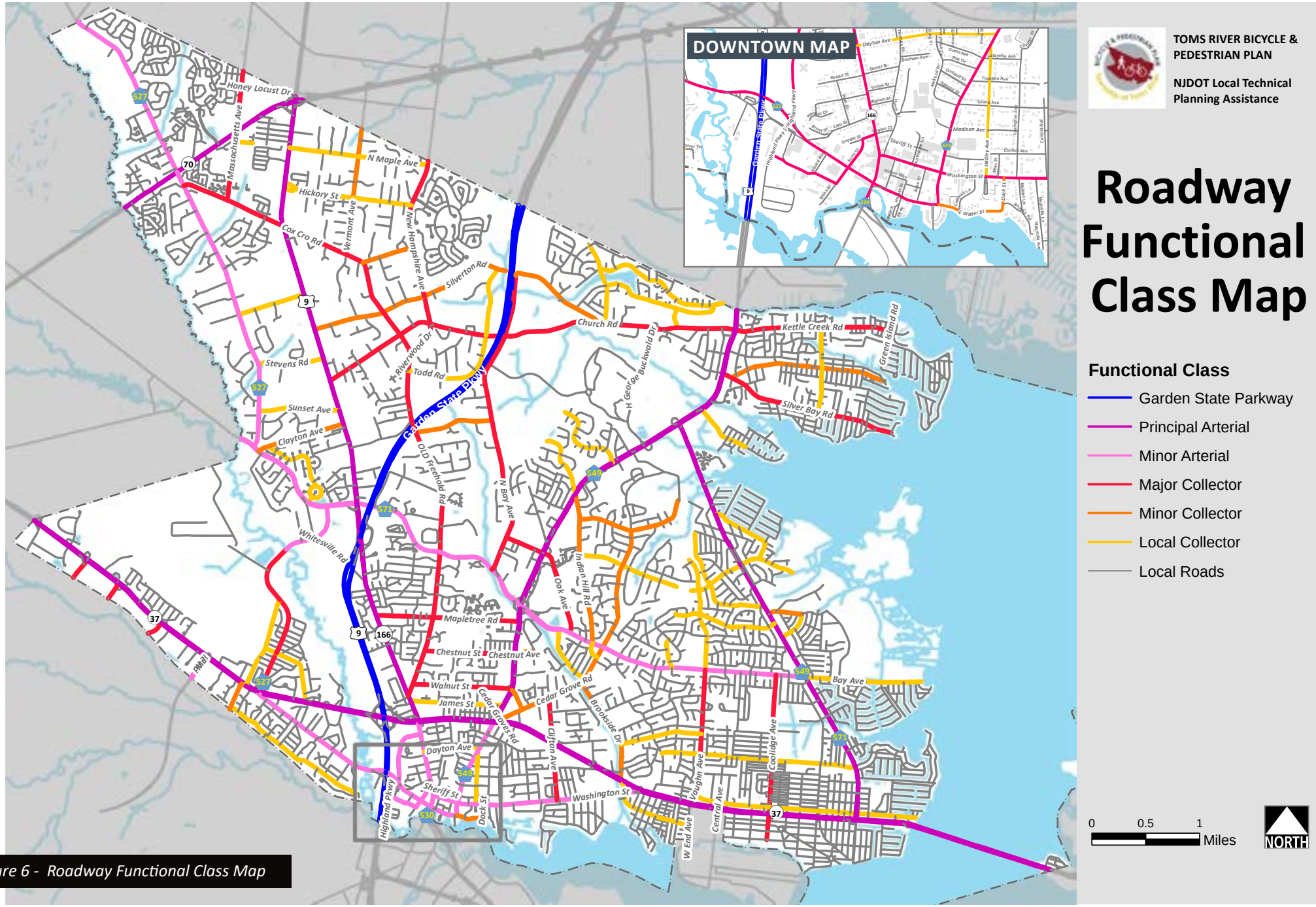


Figure 6 - Roadway Functional Class Map

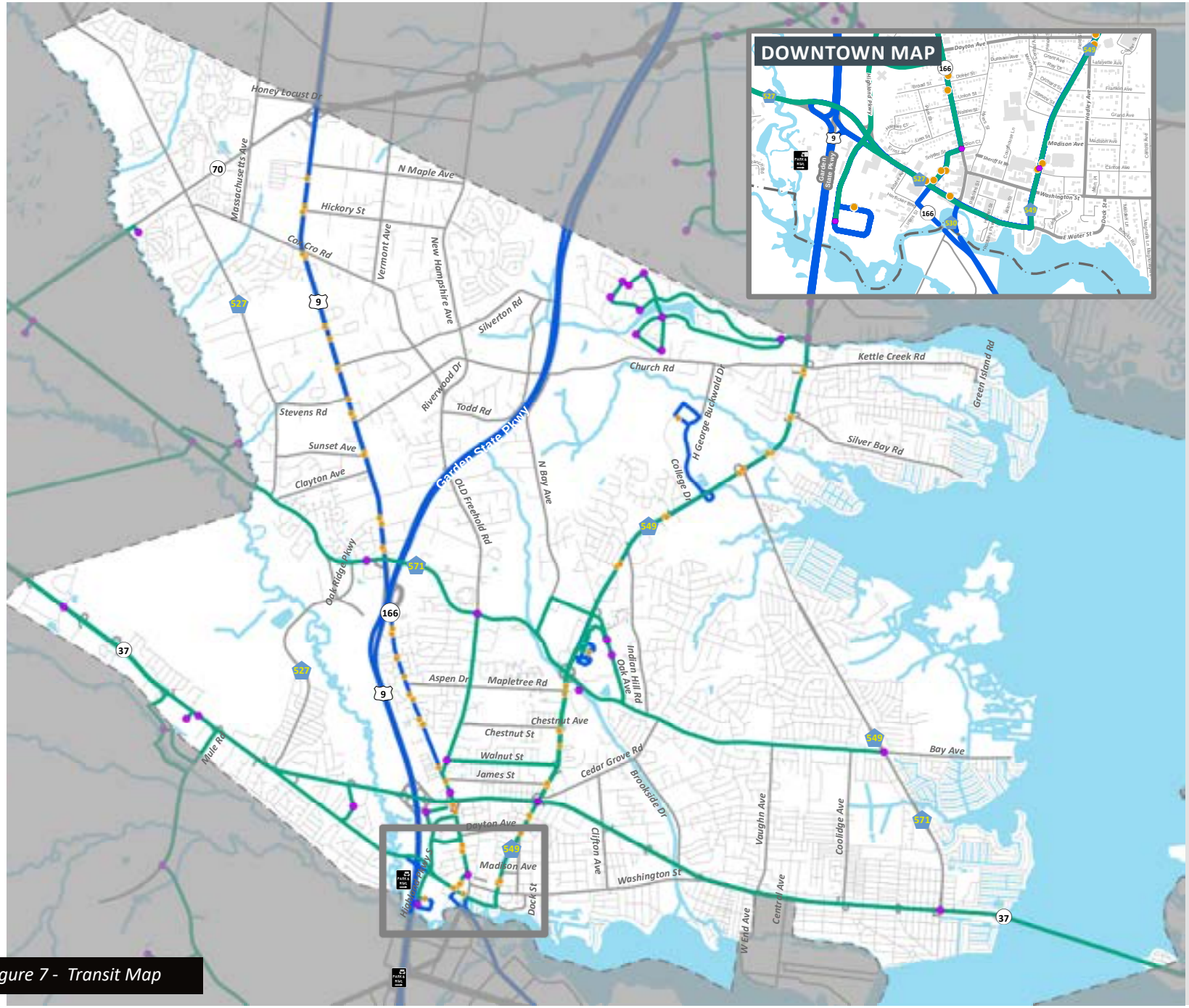


Figure 7 - Transit Map

TOMS RIVER BICYCLE & PEDESTRIAN PLAN

NJDOT Local Technical Planning Assistance

Transit Map

Transit Facilities

- NJTransit Bus Routes
- NJTransit Bus Stops
- Ocean Ride Bus Routes
- Ocean Ride Bus Stops
- Park & Ride

0 0.5 1 Miles

NORTH

Crash Data

The following analysis utilizes data obtained from Numetric (New Jersey Department of Highway Traffic Safety Crash Analysis Tool) to illustrate crash statistics and trends within Toms River between 2011 and 2017. Findings are by theme (Severity, Time, Pedestrian/Bicyclist Characteristics, Driver Characteristics, and Roadway Characteristics) to help identify key characteristics and serve as a tool in efforts to increase pedestrian and bicyclist safety throughout the Township.

Key Findings

1. Overview
    - » There were 371 pedestrian crashes and 162 bicyclist crashes within Toms River from 2011-2017, the second highest number of bicycle and pedestrian crashes in Ocean County and 1% of all bicycle and pedestrian crashes in New Jersey
    - » Toms River Township ranked 19th in bicycle and pedestrian crashes among all New Jersey municipalities
2. Severity
    - » Of the 371 pedestrian crashes, 6.2% were fatal (resulting in 23 total deaths) and 7.5% (28) caused incapacitating crashes.
    - » Approximately 1.2% of bicyclist crashes were fatal while around 30% of bicyclist crashes resulted in moderate injury
    - » Toms River Township ranks 3rd among all New Jersey municipalities in fatal and severe injury bicycle and pedestrian crashes
3. Time
    - » June through August was the highest 3-month time-frame for pedestrian crashes accounting for 33% of total pedestrian crashes
    - » Among individual months, October had the highest concentration of pedestrian crashes with roughly 12%
    - » Summer months (July – September) accounted for 50% of bicyclist crashes in Toms River
    - » Among individual months, August had the highest concentration of bicyclist crashes (12.9%)
    - » Roughly 64% of pedestrian crashes and 70% of bicyclist crashes within the study area occurred in daylight
    - » Around a quarter of both pedestrian and bicyclist crashes took place in dark conditions with street lights on
    - » Roughly 19% of pedestrian crashes occurred on Fridays and approximately 60% of bicyclist crashes took place on either Thursday, Friday, or Saturday
    - » The highest concentration of crashes (pedestrian and bicyclist) occurred between the hours of 4:00 PM – 7:59 PM (this time period accounted for roughly 28% of total crashes for each crash type)
4. Pedestrian/Bicyclist Characteristics
    - » Approximately 17% of pedestrian crashes involved pedestrians between the ages of 50-64
    - » Roughly 20% of all bicyclist crashes involved bicyclists under the age of 18
5. Driver/Vehicle Characteristics
    - » Approximately 28% of pedestrian and 23% or bicyclist crashes involved distracted driving
    - » Around 21% of pedestrian crashes, and 14% of bicyclist crashes, involved an older driver
    - » Around 40% of pedestrian crashes and 37% of bicyclist crashes involved vehicles that were “Going Straight Ahead” prior to the crash

6. Roadway Characteristics

- » Around 32% of pedestrian crashes occurred on private properties followed by county roads with 27%
- » Approximately 42% of bicyclist crashes occurred on State Highways followed by county roads with 35%
- » Approximately 83% of pedestrian crashes and 88% of bicyclist crashes took place on dry roads
- » Over 74% of pedestrian crashes and 86% of bicyclist crashes occurred on dry roads during clear weather conditions
- » Approximately 20% of pedestrian crashes occurred on streets with a posted speed limit of 50 mph (around 33% of bicyclist crashes took place on such streets)
- » Approximately 30% of pedestrian crashes and 56% of bicyclist crashes occurred at an intersection
- » NJ Route 37 had the highest concentration of pedestrian crashes (40) and accounted for:
  - 22% of the town-wide total
  - 14% of the fatal pedestrian crashes (8)
  - 26% of total bicyclist crashes in the Township.

Note: The crash maps only show the bicycle and pedestrian crashes that are geocoded.

View of NJ Route 37, corridor with the highest concentration of pedestrian crashes between 2011-2017

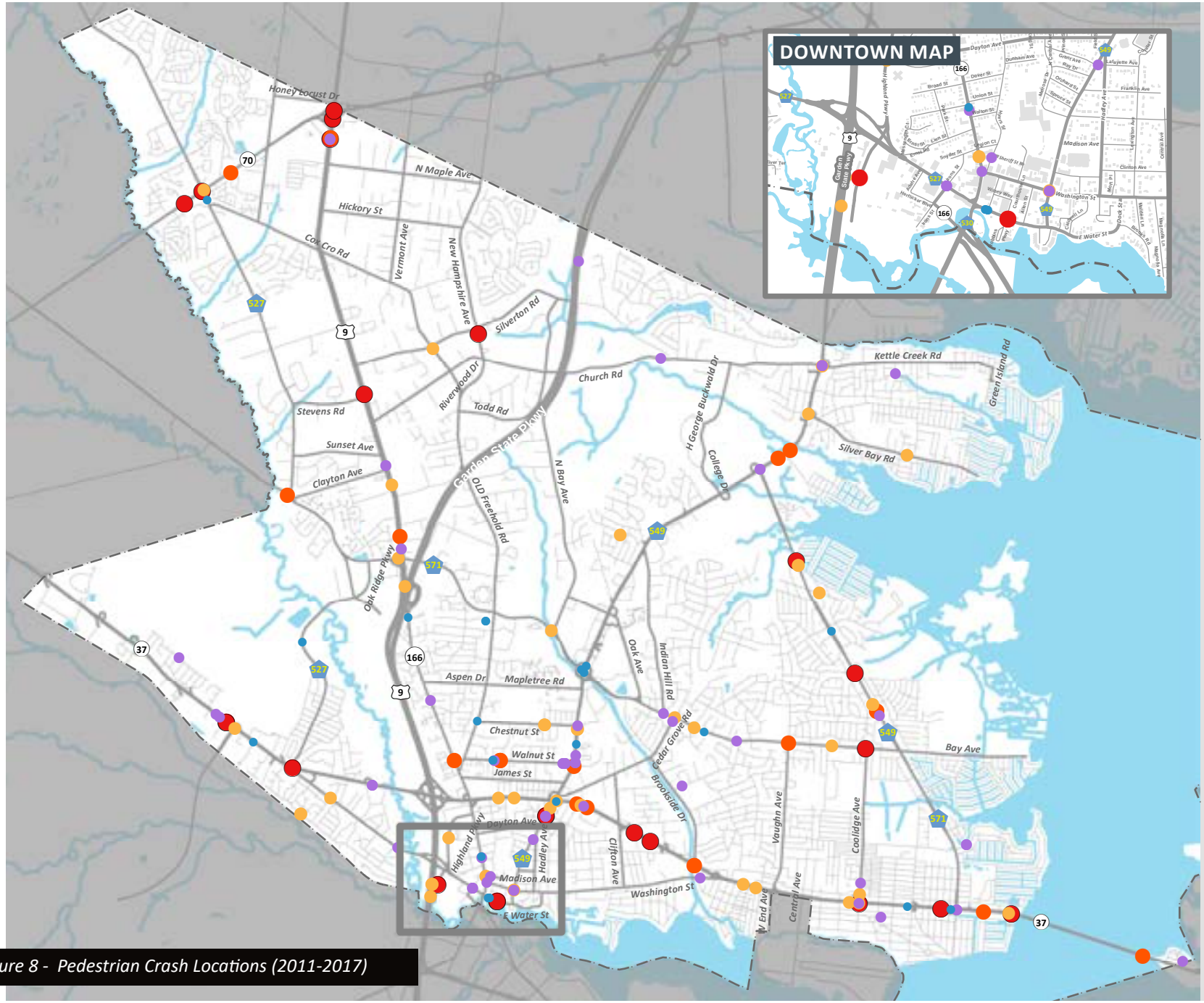
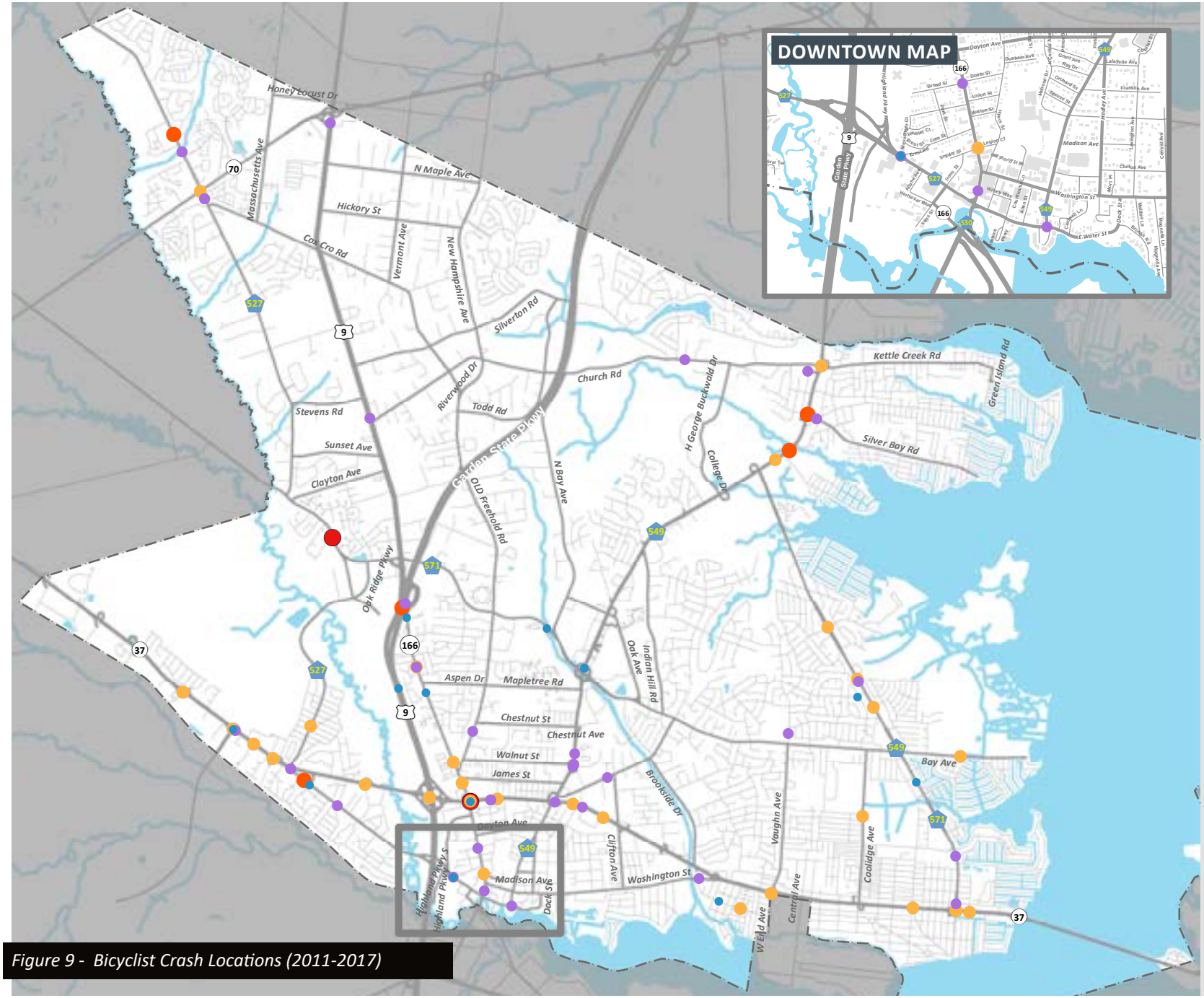


Figure 8 - Pedestrian Crash Locations (2011-2017)



TOMS RIVER BICYCLE & PEDESTRIAN PLAN

NJDOT Local Technical Planning Assistance

Bicyclists Crash Locations (2011-2017)

Crash Severity

- Killed (2)
- Incapacitated (7)
- Moderate Injury (60)
- Complaint of Pain (73)
- Property Damage Only (20)

0 0.5 1 Miles

NORTH

Source: NJDHTS Numetric Crash Tool

Figure 9 - Bicyclist Crash Locations (2011-2017)

Environmental Constraints

Preliminary Environmental Screening and Regulatory Analysis Overview

Based on our preliminary environmental screening, the proposed path segments will potentially impact a number of environmental and cultural resources located within the project study area. The following constraints were mapped for the recommended shared-use path segments (See Appendix 4):

- Freshwater and tidal wetlands and waters
- Wetland transition areas
- Floodplains
- Threatened and endangered species habitat
- Historic properties and districts
- Contaminated areas, both land-based and groundwater-based

See Appendix 4 for a detailed list of potential constraints per individual shared-use path segments.

Assuming a ten-foot wide path, which is the minimum recommended for AASHTO compliance, the proposed path segments, cumulatively, will impact approximately six to seven acres of wetlands/waters/wetland transition areas. Wetland impacts associated with individual segments vary considerably. It is anticipated that the municipality construct the overall network in phases, developing one or multiple segments of the path at a time. This “phased” approach may provide some permitting benefits as outlined below.

Provided the path segments proposed for construction in each phase have a defensible starting and ending point with independent utility, there is the potential to secure a NJDEP Statewide General Permit (SGP) No. 17 for path construction. The value to the municipality in utilizing an SGP 17 is that there is no requirement for mandatory compensatory wetland mitigation for an SGP 17, which can be very costly when there is a significant degree of permanent wetland/waters impact (said mitigation may not apply to impacted wetland transition area depending on other permitting factors). If the path segments need to be wider than 10’ feet, an NJDEP Individual Freshwater Wetlands Permit would then be needed, which would require mandatory compensatory wetland mitigation.

Given that some of the wetlands/waters that may be potentially impacted are tidal in nature, a US Army Corps of Engineer’s permit may be required as well. In addition to the permits identified above, given that the entire project site lies within the Coastal Area Facility Review Act (CAFRA) jurisdictional limits, a CAFRA permit for public development will be required. Any work below the mean high tide elevation of any tidal waterbody will require a Waterfront Development (in-water) as well as a Tidelands Conveyance or a Tidelands License if there is not an existing Tidelands Conveyance. CAFRA criteria will require an analysis of impacts to a number of resources, in accordance with the Coastal Zone Management Rules. Of particular importance are impacts to cultural resources, floodplains, and flood hazard areas. Impacts to cultural resources, including historic properties, historic districts, and archaeological sites will require coordination with the State Historic Preservation Office (SHPO). There is the potential that a US Army Corps of Engineer’s permit and full compliance with Section 106 of the National Historic Preservation Act will be required. Impacts to non-tidal flood hazard areas are required to result in a “net zero percent” of fill in the flood hazard area. This requirement does notapply in tidal floodplains.

In addition to required environmental permits based on project-related impacts, funding sources may also require environmental approvals.

If federal funds are used, a National Environmental Policy Act (NEPA) Categorical Exclusion (CX) will be required, with the US Federal Highway Administration as the likely Federal Lead Agency.

Current Bicycling & Pedestrian Conditions

Complete Streets

In 2012 the Township adopted a Complete Streets Policy that supports and "recognizes the need to accommodate all modes of travel on Township streets, including pedestrians, cyclists, motorists and mass transit riders"[1].

The policy is comprehensive and requires that all public street projects should be designed as "Complete Streets" whenever feasible. The policy recommends the creation of a bicycle and pedestrian plan that focuses on improving bicycle and pedestrian access to schools, downtowns, bus stops, and areas in need of redevelopment.

The Township recently adopted the Ortley Beach Neighborhood Plan with a bicycle and pedestrian component. Recently the Township received funding to implement the streetscape improvements identified for Route 35 northbound.

Pedestrian & Bicycle Infrastructure

Based on data collected by the Township and NJDOT in 2008, a desktop review of the sidewalk network and pedestrian infrastructure was conducted. The analysis revealed that, while there are sidewalks in most parts of the Township, sidewalk connections between the areas are missing. NJDOT data on the pedestrian infrastructure on County roads revealed sidewalks , curb ramps, and crosswalks were missing on major thoroughfares. A current evaluation of the major roadways will be conducted when a priority bicycle and pedestrian network is identified.

Currently, there are bicycle and pedestrian paths within the 600-acre Winding River Park. The Township has been working on connecting/ expanding the trails in Winding River Park to other trails such as the Barnegat Branch Trail (BBT) and the proposed Downtown River Walk Trail.

The Barnegat Branch Trail (BBT) is a 16-mile linear rail-to-trail that primarily follows the abandoned Barnegat Branch Division of the Central Railroad of New Jersey. About 11 miles of the trail are complete and currently Ocean County and NJTPA are working on a study of potential walking and biking paths that could connect to the BBT segment in downtown Toms River and terminate at the Park and Ride / Bus Terminal in Toms River[2]. The original BBT concept plan included a recommendation to extend the BBT beyond the park and ride utilizing a Township-owned portion of the abandoned Pennsylvania Railroad Track and an utility easement owned by JCP&L. This would require additional bicycle and pedestrian bridges over the Toms River and Route 37.

While this Bicycle and Pedestrian Plan focuses on the mainland areas of Toms River, there are concurrent efforts to enhance circulation on the barrier island as well. Figure 10 shows an excerpt from the Ortley Beach Neighborhood Plan.

A recommendation of the *2016 Toms River Municipal Public Access Plan* is to "reconnect the downtown to the River by creating a River Walk stretching from Allen Street in the east to the Garden State Parkway/ Toms River Municipal Utilities Authority (TRMUA) property in the west".

Figure 10 - Proposed Bicycle & Pedestrian Circulation, Ortley Beach Neighborhood Plan

Barnegat Branch Trail, Ocean County

Winding River Park

DOWNTOWN BIKE PATH PLAN
AND BARNEGAT BRANCH TRAIL LINKAGES

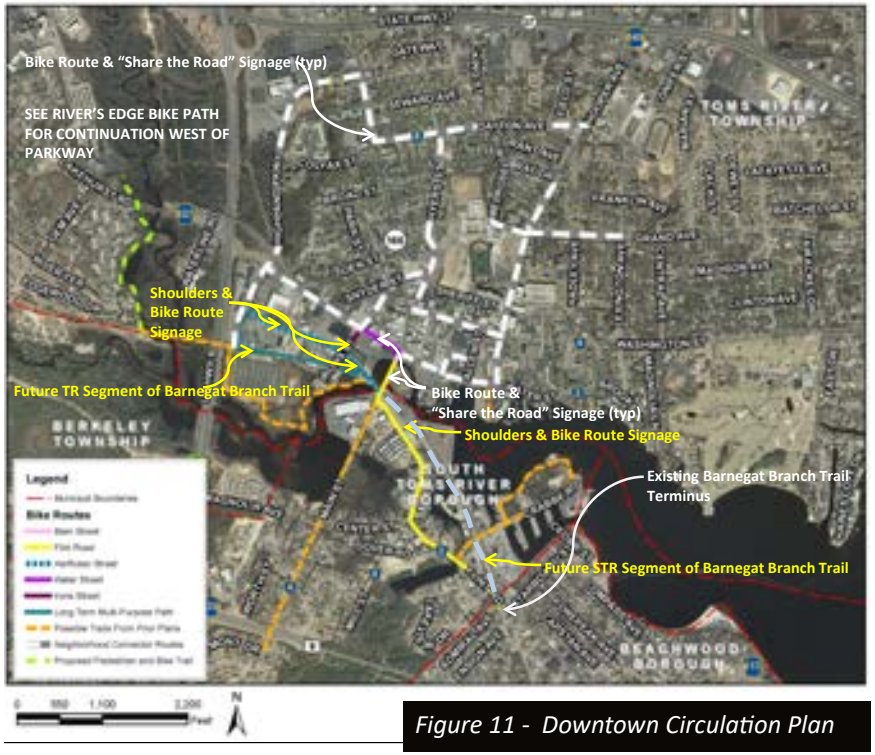
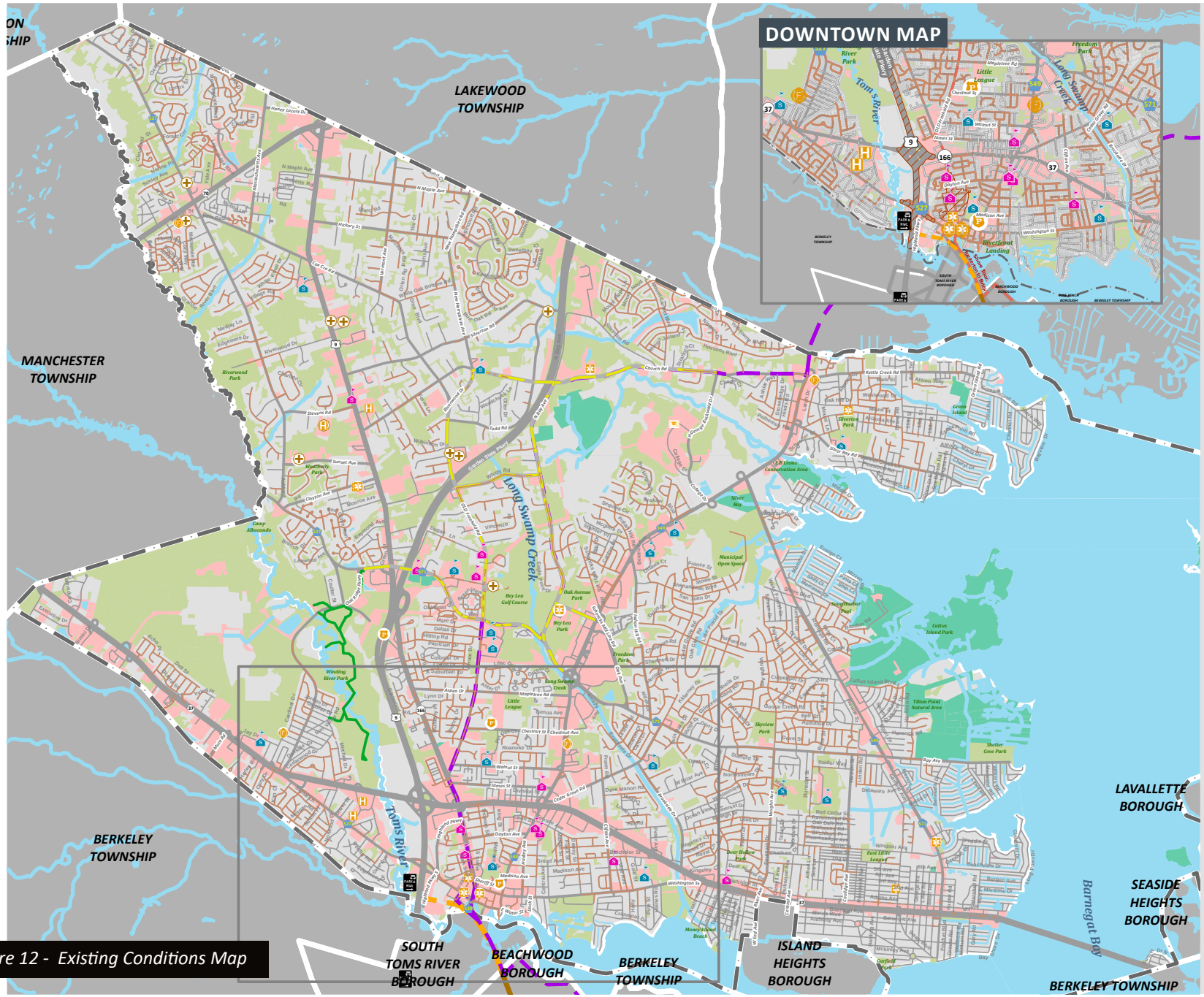


Figure 11 - Downtown Circulation Plan



TOMS RIVER BICYCLE & PEDESTRIAN PLAN

NJDOT Local Technical Planning Assistance

Map EXISTING CONDITIONS

LEGEND

Roads

Sidewalk Inventory (2008)
- BOTH SIDES
- ONE SIDE

Barnegat Branch Trail
- Constructed
- Future
- Winding River Park Trails
- Proposed Bicycle Lanes (2010)
- NJDOT Shore Tour
- Streams
- Commercial/Developed Area
- State/County Open Space
- Open Space / Parks
- EMS
- Fire Stations
- Medical
- Ocean County College
- Hospitals
- Police

Schools
- Private
- Public

0 0.5 1 Miles

NORTH

Data Source: Toms River Planning Department, Sidewalk (2007)

Figure 12 - Existing Conditions Map

Existing Plans, Policies & Programs

Master Plan & Elements

The recently-adopted *2017 Circulation Plan Element* recognizes the need to plan for bicycle and pedestrian infrastructure. The following objectives of the circulation plan element relate to planning for bicycle and pedestrian infrastructure:

1. Investigate traffic calming techniques in neighborhoods that have been negatively impacted by through traffic, therefore minimizing unrelated traffic in residential areas.
2. Encourage enhancing safety for pedestrian and bicycle traffic through improved design elements and set aside projects.
3. Promote the creation of networks that support multi-modal transit options inclusive of cars, public transit, bicycles and pedestrians.
4. Encourage the minimization of the usage of cars in favor of public transit and non-motorized transportation options to reduce greenhouse gas emissions.
5. Implement trail and greenway recommendations provided in the *Conservation, Recreation and Open Space Element of this Master Plan.*

In addition, the Township's overall Transportation Strategy in the Circulation Element to promote smart growth is:

1. Transportation infrastructure such as streets, pedestrian and bicycle accommodation as well as mass transit options must be provided in the core redevelopment and development areas.
2. Coordinate with Ocean County to connect Winding River Park and other areas along the Toms River (from Manchester to downtown) with the Barnegat Bay Trail (as an extension of the Barnegat Bay Trail) to provide a bicycle and pedestrian connection from downtown to the Industrial Center and residential areas in North Dover.

Downtown Redevelopment in Toms River

The Township has been working on a waterfront redevelopment plan for several years. Recently, the Township acquired the Red Carpet Inn in an effort to not only eliminate a "nuisance property"[3] but also to take the first step to revitalize its downtown.

US 9 Corridor Study Managing and Accommodating

Figure 13 - Land Use, Downtown Redevelopment Plan

Growth in Lakewood and Toms River, Ocean County

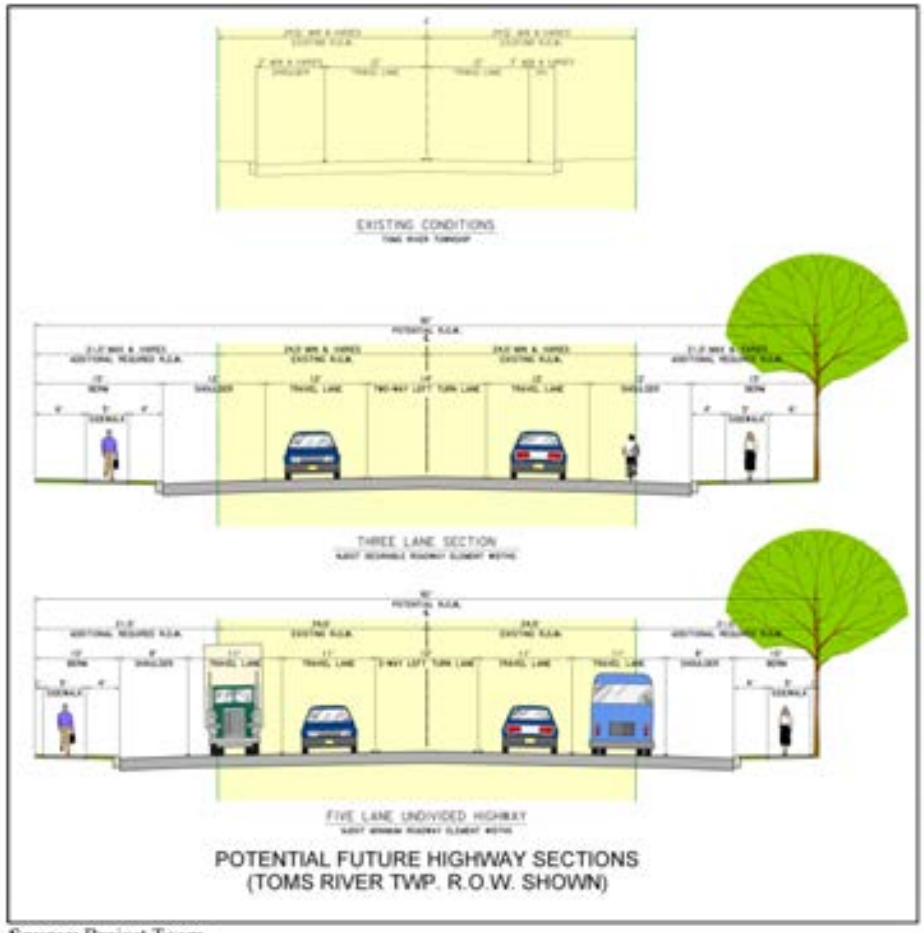
This study identifies a vision for the congested section of US Route 9 between Indian Head Road in Toms River and Main Street in Lakewood. The long-term vision for the roadway is to change the existing two-lane roadway into a three- or five-lane section with a two-way turn lane, shoulders, and sidewalks within a right-of-way of 92 feet. The study also recommends two site-specific, low-cost, high-impact intersection improvements:

Site-Specific Improvements in Toms River are:

- US Route 9 & Whitty Road
  - » Right-turn lane from US Route 9 to West Whitty Road
  - » Separate right-turn & left-turn lane from West Whitty Road
- US Route 9 & Church Road
  - » Consolidating bus stop locations on Route 9 NB
  - » Two-way left-turn lane on Route 9
  - » Right-turn lane from Route 9 to Church Road
  - » A new signal is proposed for the intersection of Stevens Road and US Route 9.

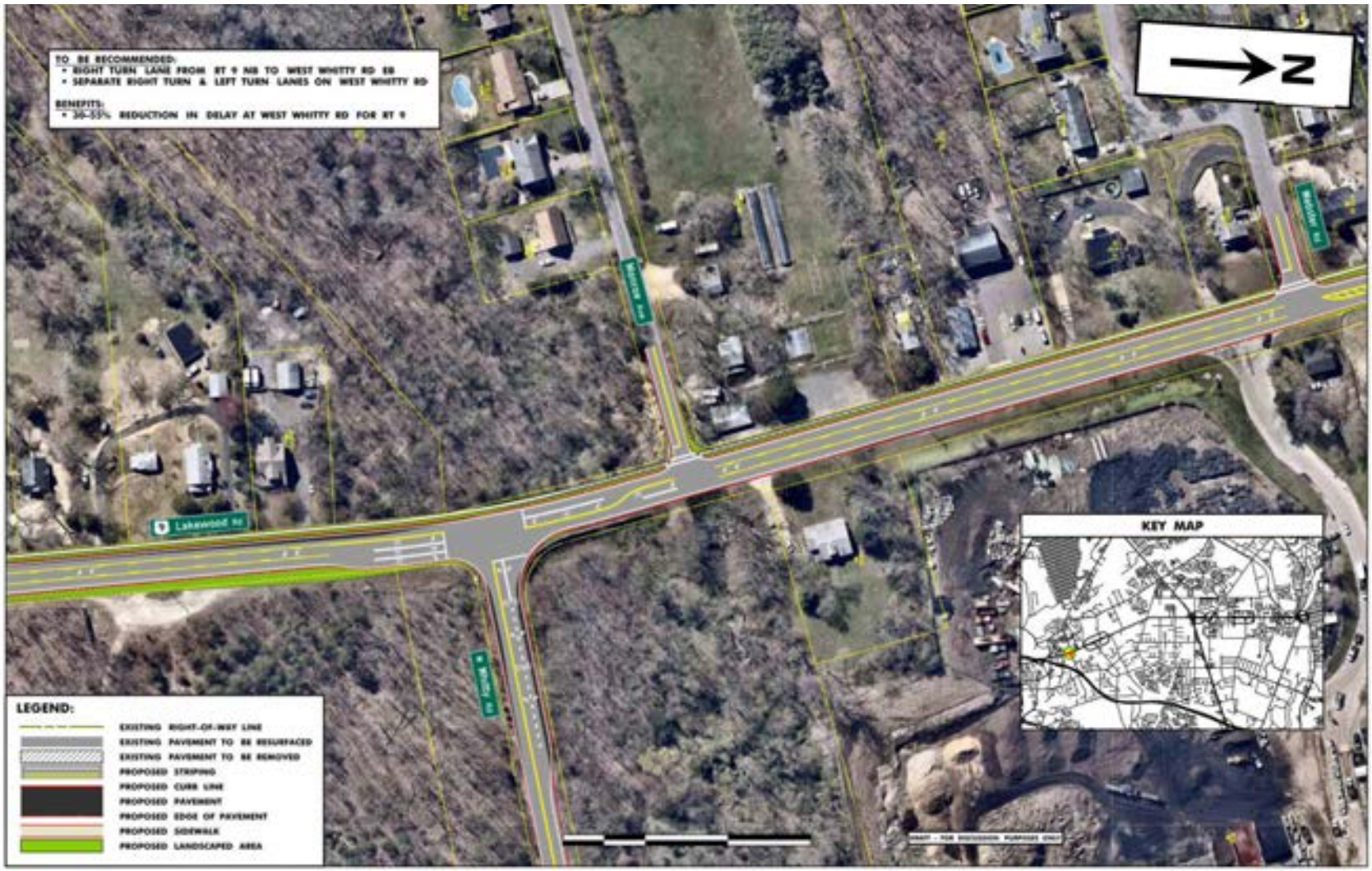
Other recommendations include adoption of an Access Management Plan, modifications to bus stops, improvements to traffic signalization and completion of parallel networks.

Downtown Circulation Neighborhood Plan



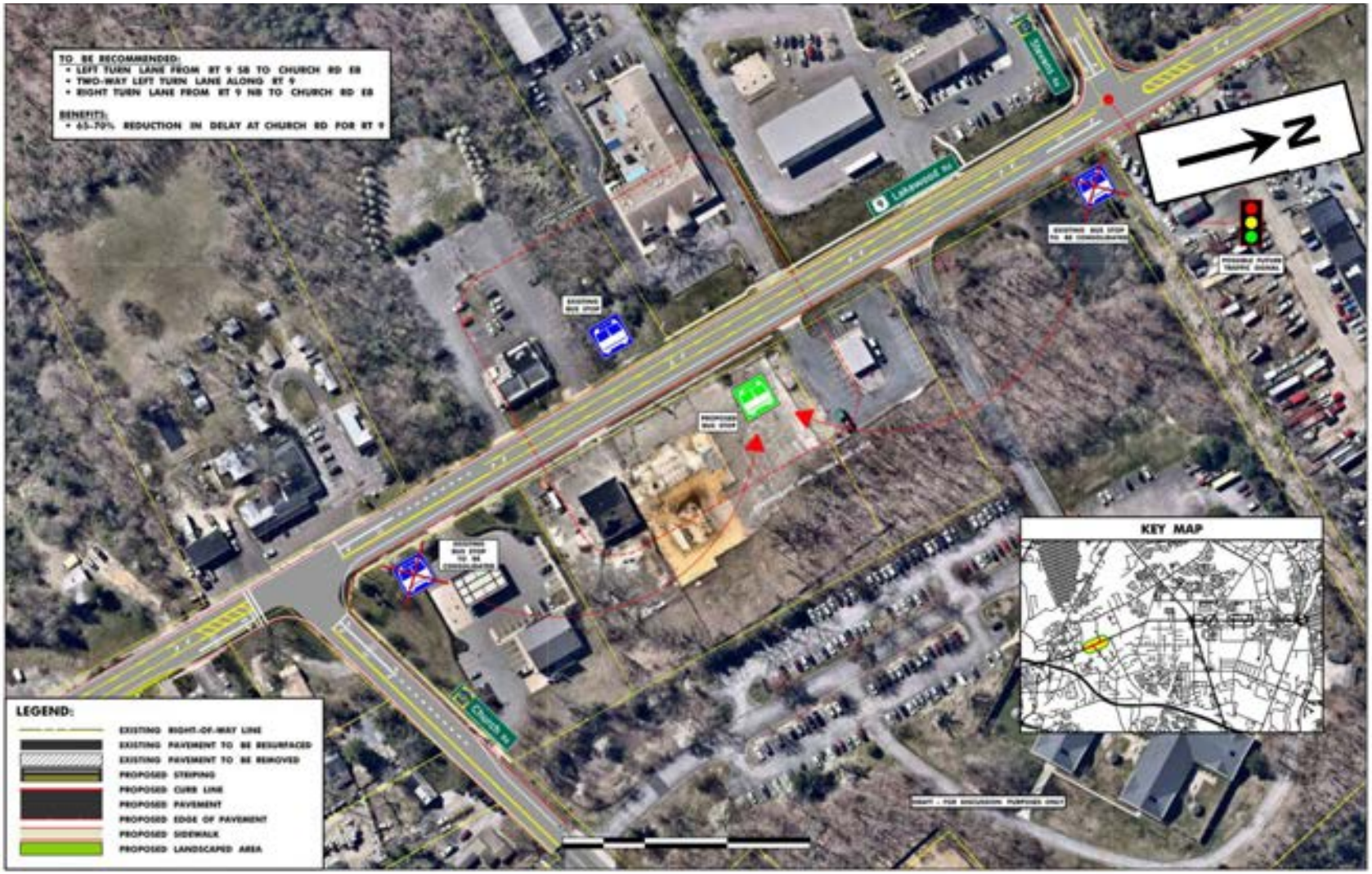
Source: Project Team

Figure 14 - Potential US Route 9 Cross Sections, Route 9 Corridor Study



Source: NJDEP Aerial Photo with project specific enhancements

Figure 15 - Improvements US Route 9 & Whitty Road, Route 9 Corridor Study



Source: NJDEP Aerial Photo with project specific enhancements

Figure 16 - Improvements US Route 9 & Church Road, Route 9 Corridor Study

The *2016 Downtown Circulation Neighborhood Plan* focuses on traffic and circulation issues related to the downtown waterfront redevelopment areas. The plan addresses bicycle and pedestrian mobility including connecting to Barnegat Branch Trail and recommendations to improve access around Huddy Park.

A preferred scenario of "The Loop" was identified as part of this plan.

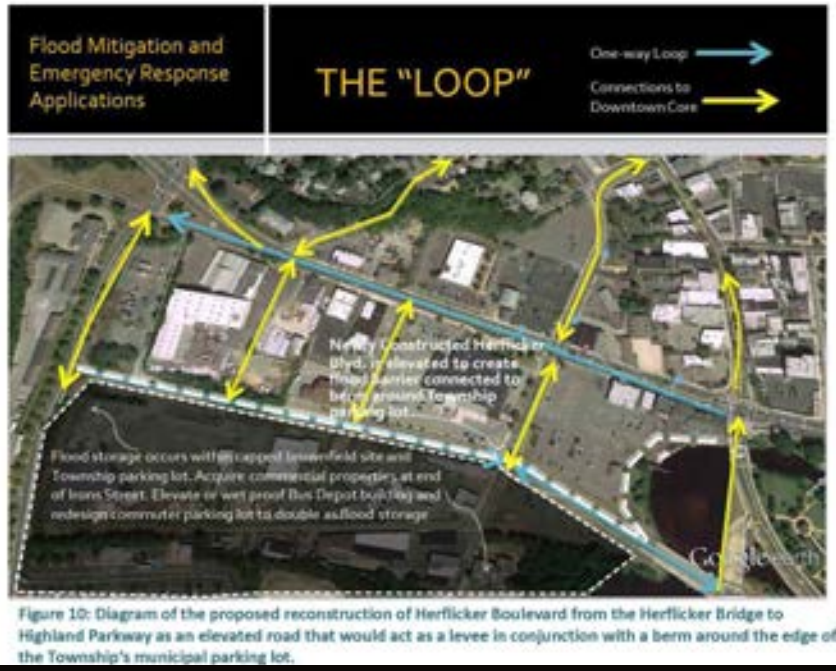


Figure 17 - Proposed Reconstruction of Herflicker Blvd, Downtown Circulation Neighborhood Plan

This included converting Herflicker Boulevard and Water Street into one-way streets going eastbound and westbound respectively. In addition, intersection improvements were recommended to the existing intersections including signal modifications, adding a new side street to the west of Adafre Avenue, and stop controls on the side streets.

The intersection of Main Street and Water Street with unrestricted right turns was identified as a major conflict for pedestrians.

BUILD Grant

Recently, the Township received a federal $5.6 million BUILD (Better Utilizing Investment to Leverage Development) grant for the Loop road project. The project description for the grant is to "create a loop between the Garden State Parkway and waterfront business district by elevating and reconstructing Herflicker Boulevard as a one-way Complete Street, converting Water Street to a one-way Complete Street, and making roadway improvements and upgrades on connecting roadways." The BUILD grant fact sheet further states "By improving traffic circulation, reducing the number of turning movements at intersections, and adding pedestrian and bicycle infrastructure, the project will improve traffic movement and reduce the number of accidents." The project improves the roadway and elevates Herflicker Boulevard to limit flooding so that it can be used as an evacuation route during flood events. The project also improves multi-modal connectivity to the Toms River waterfront district, which is planned for redevelopment, and increases transportation choice.

Opportunities & Constraints

The following is a summary of opportunities and constraints based on the initial assessment of existing conditions.

Summary of Constraints

The most common challenges with walking and bicycling were identified during the initial assessment of existing conditions and refined through Steering Committee input and public outreach. These include:

1. **High-traffic volume / speed roadways**: Several high-traffic, volume and speed roadways that bisect the Township and are barriers to walking and bicycling to major destinations.
2. **Limited through-routes:** Majority of the through streets are arterials and county routes that are typically designed to carry higher volume traffic at higher speeds.
3. **Township size:** Toms River Township is a large municipality (52 square miles) with its commercial downtown located in the southern section of the Township and Winding River Park towards its western border. The long distances between these two destinations and the rest of the Township are a barrier to walking and bicycling.
4. **Incomplete sidewalk network:** Some of the major roadways such as Hooper Avenue, Church Road, and New Hampshire Road were identified as missing sidewalks or requiring sidewalk maintenance.
5. **High number of bicycle and pedestrian crashes:** Many intersections and roadways are perceived as unsafe for pedestrians and bicyclists. This perception is supported by the reported bicycle and pedestrian crashes.
6. **Missing links/upgrades to Winding River Trail:** The trail is missing links / connections necessary to provide a continuous and convenient facility for transportation trips.
7. **Environmental Constraints**: The entire study area is within the CAFRA (Coastal Area Facilities Review Act), which regulates the use and development of coastal resources.

Summary of Opportunities

While there are many barriers/challenges to walking and bicycling in Toms River Township, there are several opportunities to improve walking and bicycling conditions. The following opportunities were identified following an initial assessment of existing conditions and field visits.

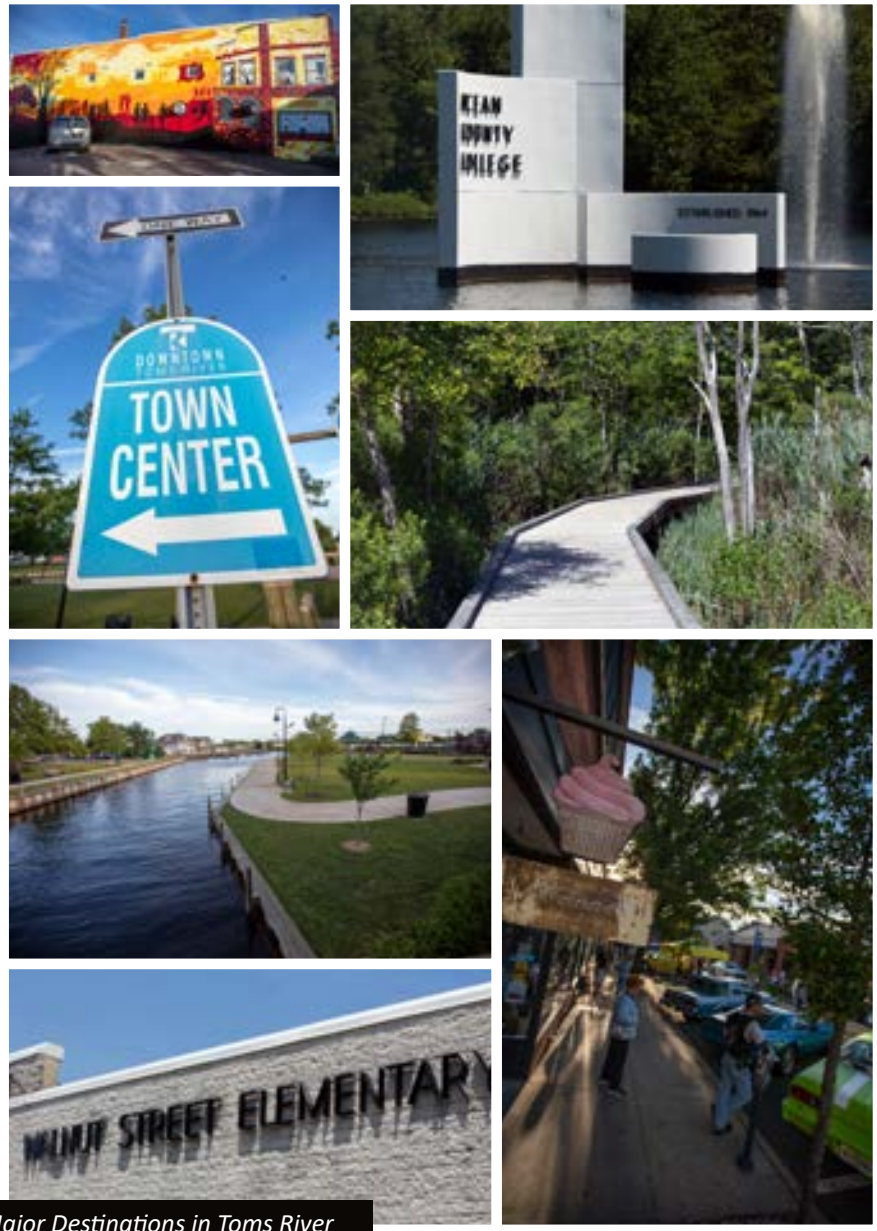
1. **Developing trails**: Winding River Trail and Barnegat Branch Trail present tremendous opportunity for walking and bicycling to and through Toms River Township
2. **Off-road path potential:** There are several hiking trails in the Township that, if maintained and enhanced, can be utilized for off-road bicycle and pedestrian travel throughout the Township.
3. **Underutilized railroad:** The underutilized railroad corridor along the southwestern border could become a major off-road bicycle and pedestrian facility within the Township and extend to the surrounding municipalities.
4. **Desire to improve bicycle and pedestrian facilities:** The Township policies, plans, and projects all indicate a desire to improve bicycle and pedestrian travel in the Township.
5. **Roadway configuration:** Several roadways have wide shoulders that can be utilized for bicycle facilities. In addition, many roadways have wide travel lanes that can be narrowed to a minimum width (11') to accommodate bicycle infrastructure.
6. **County involvement and interest:** Toms River Township is the county seat and Ocean County is supportive of improving bicycle and pedestrian infrastructure in the Township.

7. **Downtown redevelopment:** Current downtown redevelopment proposals include bicycle and pedestrian infrastructure.
8. **Recent studies/grants:** The Township recently received a BUILD grant for the Herflicker Loop project. *The Route 9 Corridor Study* presents opportunities to rethink the corridor and provide options for multi-modal travel.

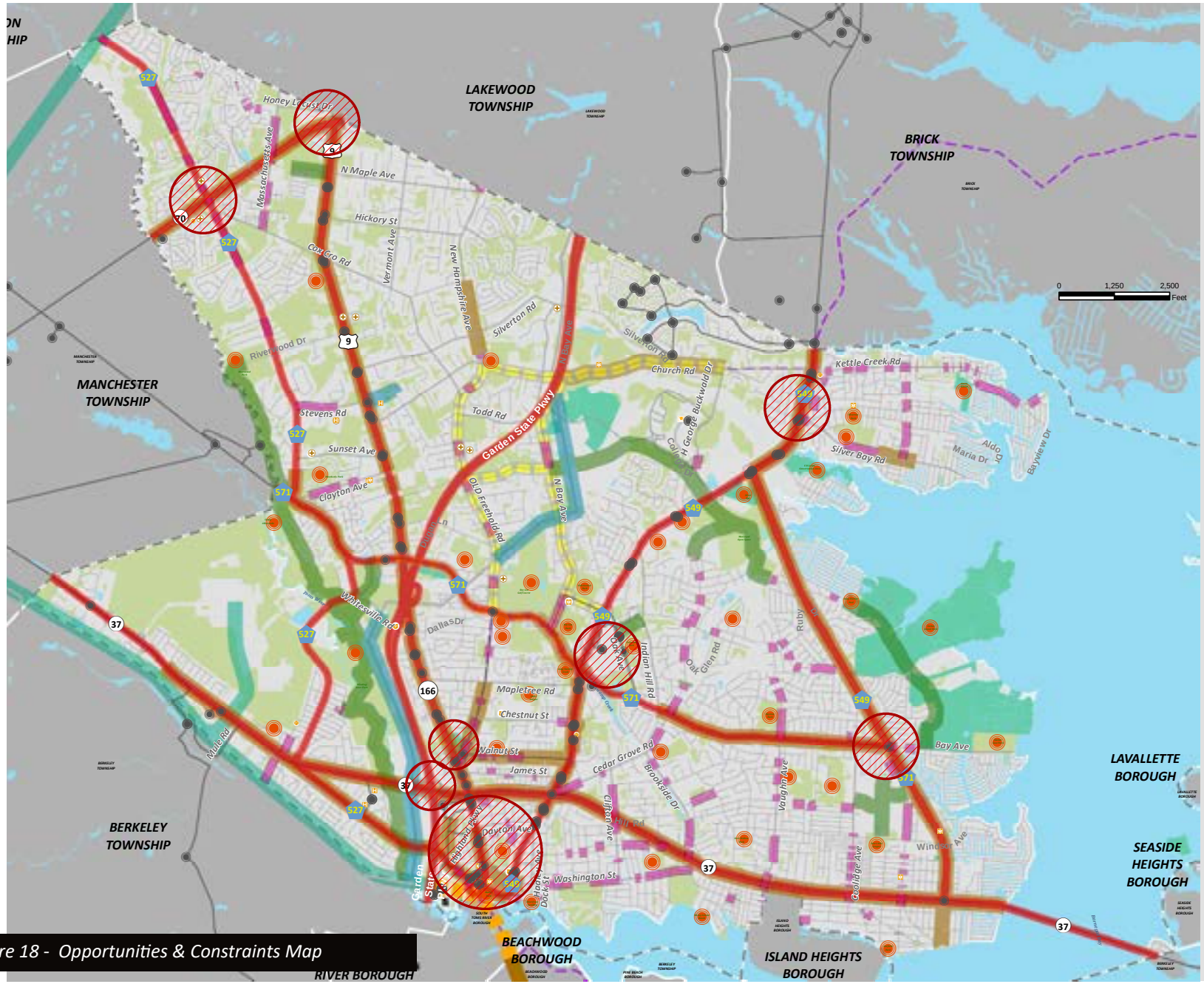
Major Destinations

Based on the analysis of the existing conditions, discussions with the Steering Committee and feedback from the public to date (February 2019) the following major destinations have been identified:

- Downtown
- Schools
- Parks including Huddy Park, Winding River Park, Riverwood Park, and Cattus Island Park
- Commercial areas along major thoroughfares including Route 37, Route 9, Hooper Avenue, Bay Avenue and Fischer Boulevard
- Ocean County Mall
- Ocean County Complex
- Park and Ride / Bus Terminal
- Ocean County College
- Bus stops
- Senior Center
- Residential neighborhoods
- Waterfront/Beach
- Island Heights Boardwalk



Major Destinations in Toms River



TOMS RIVER BICYCLE & PEDESTRIAN PLAN

NJDOT Local Technical Planning Assistance

Map OPPORTUNITIES CONSTRAINTS MAP

LEGEND

- Key destinations
- Percieved high speeds/barriers
- Existing/Planned Trail
- Utility Corridors
- Bus stops
- Frequent Crash Corridors
- Key Commercial Areas
- Sidewalk Gaps (2008 data)

Barnegat Branch Trail

- Constructed
- Future
- Railroad Corridor
- Proposed Bicycle Lanes (2010)
- NJDOT Shore Tour
- Streams
- Commercial/Developed Area
- State/County Open Space
- Open Space / Parks
- EMS
- Fire Stations
- Medical
- Ocean County College
- Hospitals
- Police
- Ocean Ride_Bus Routes

0 0.5 1 Miles

NORTH

Data Source: Toms River Planning Department, Sidewalk (2007), Ocean County, NJDEP, NJDOT

Figure 18 - Opportunities & Constraints Map

RECOMMENDATIONS

CHAPTER 4: RECOMMENDATIONS

Overview

Through the planning process, the project team developed a series of recommendations to improve safety and enhance bicycle and pedestrian facilities within the Township. These recommendations begin with the identification of network loops *(Figure 19 - Network Loop Overview Map)* aimed at improving overall connectivity between existing facilities and key destinations. This is followed by guidance for targeted pedestrian and bicycle facility improvements through recommended treatments for priority roadways throughout Toms River

Priority Bicycle & Pedestrian Network

Based on the results of the public outreach (Public Visioning workshops, surveys, Wikimapping, Public Information Center), Steering Committee feedback, field visits and data collection, a preliminary bicycle and pedestrian network was identified to realize Toms River's vision – an "All Ages and Abilities" network that can be achieved in 10 years with a focus on off-road facilities.

The preliminary network was refined further based on feedback from the Steering Committee and from the public events. The network focuses on connecting Winding River Trail, downtown, Cattus Island and the waterfront to destinations throughout Toms River Township including schools, parks, commercial areas, senior centers, Ocean County College and residential areas. Key connector routes that will serve as connections between the network loops. (See *Figure 20 and Figure 21*)

Network Loops

The following network loops were identified as a result of extensive outreach and data collection efforts:

- Downtown Loop (includes a downtown grid)
- Loop 1 – Bey Lea - Money Island Beach
- Loop 2 – Whitty Road – Ocean County College
- Loop 3 – Winding River Park - Cattus Island Park
- Loop 4 – Northern Tier
- Connectors

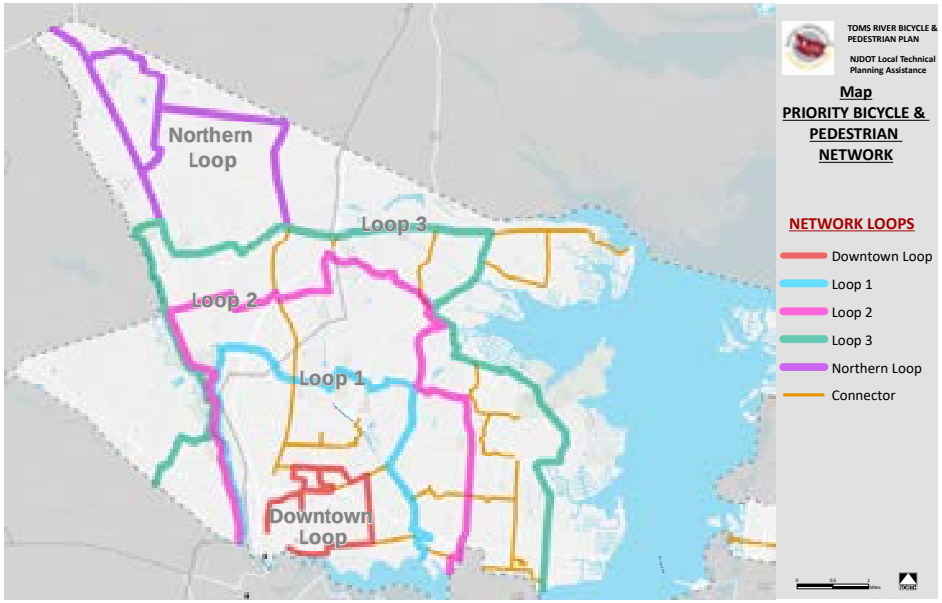


Figure 19 - Network Loops Overview Map

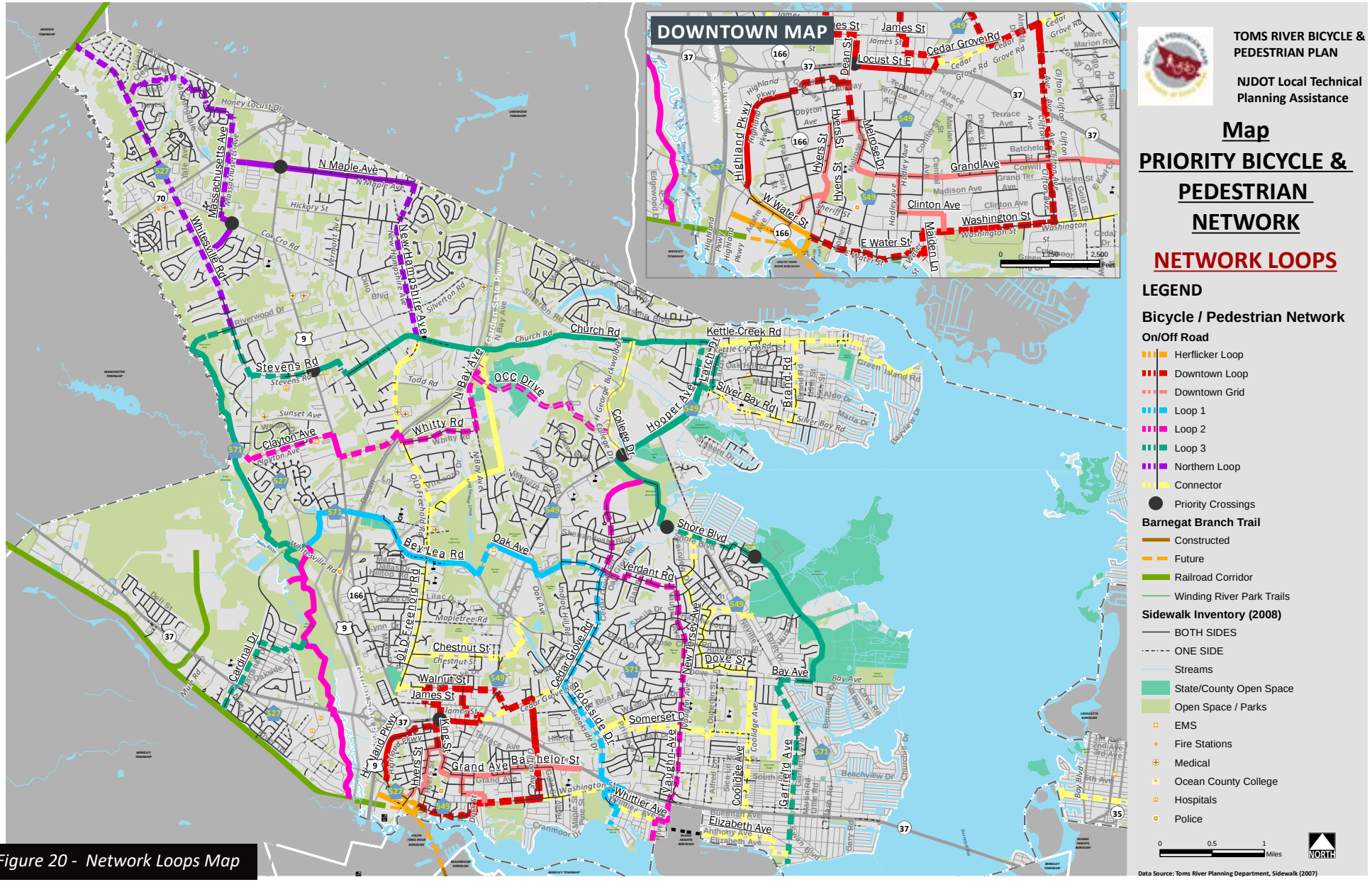


Figure 20 - Network Loops Map

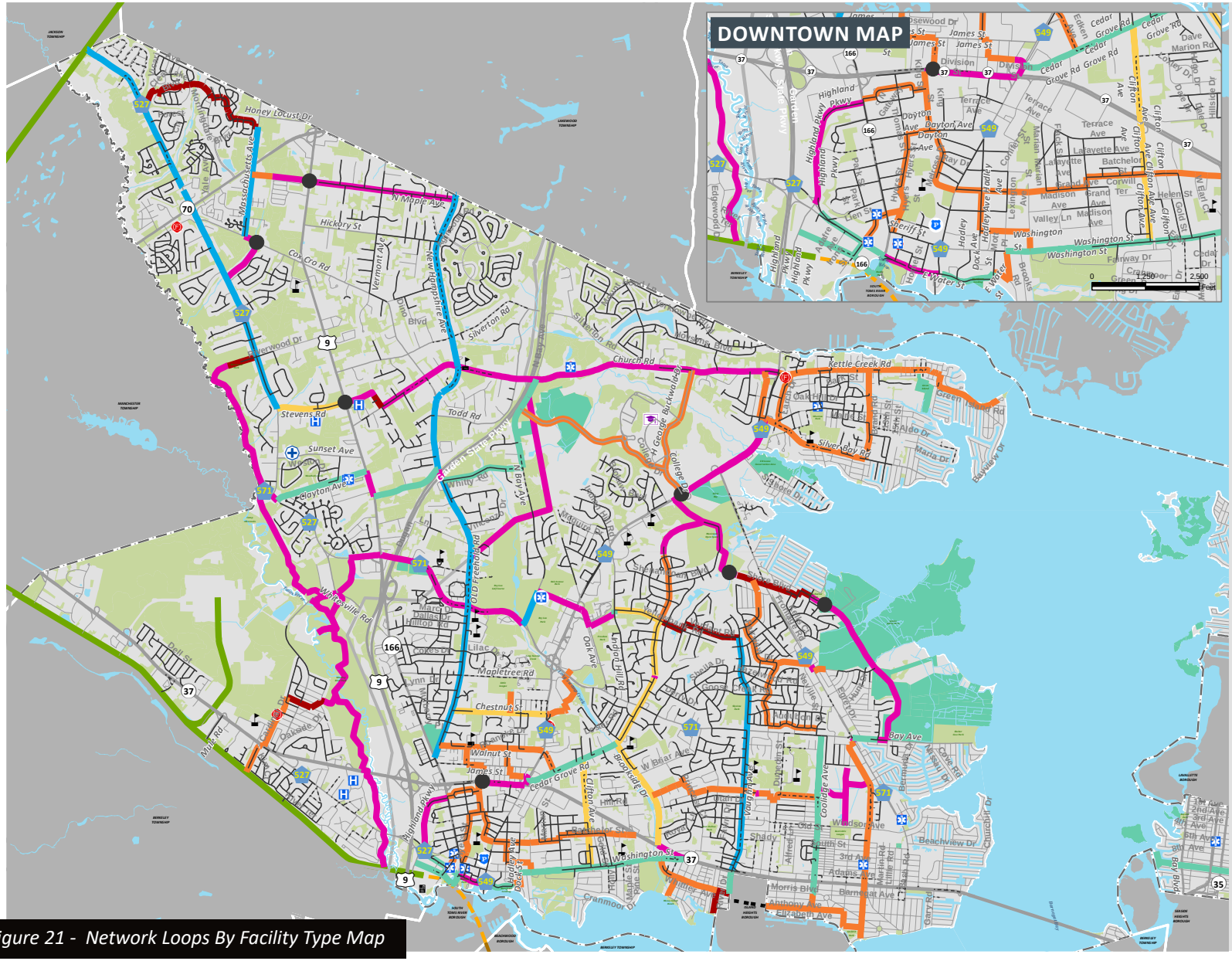


Figure 21 - Network Loops By Facility Type Map

Pedestrian Network Improvements

As noted in Chapter 3: Existing Conditions, there are sidewalks missing or in need of repair on major roadways such as Hooper Avenue, Church Road, New Hampshire Road, etc. It is recommended that the Township works towards eliminating sidewalk gaps along the priority bicycle and pedestrian network. A complete sidewalk network is one of the most important element for creating a safe and accessible walking environment. Safe street crossings should also be prioritized including adding high-visibility crosswalks, mid-block crossings, curb extensions etc. Amenities such as benches, landscaping, and lighting can improve the public realm for walking and biking.

The network links that are recommended as shared-use paths do not require additional sidewalks as they are intended to be utilized by pedestrians and bicyclists. A detailed sidewalk inventory was not included in the scope of work and pedestrian network analysis is based on the inventory developed by the Township in 2008.

Recommendations for pedestrian improvements are summarized in *Figure 22 - Pedestrian Improvements Recommendation Matrix*. The recommendations are categorized by treatments that can be applied to all roadway segments and intersections, including signalized intersections, although application will vary as appropriate to context and land use. Following the summary matrix, each treatment is described in detail including information on typical applications, design characteristics, and photos showing local and regional examples.

Recommended pedestrian improvements identified include:

- Roadway Segments
  - » Sidewalks and Curb Ramps
  - » Pedestrian-Scale Lighting
  - » Parklets
  - » Mid-block crossings[4]
  - » Gateways
- All Intersections
  - » Crosswalks
  - » Mini-traffic circles
  - » Curb Extensions
  - » Pedestrian refuge islands
  - » RRFB (Flashing warning lights)
  - » In-Street Crossing Sign
  - » HAWK Signals
- Signalized Intersections Only
  - » Pedestrian Countdown Signals

Pedestrian Improvements	RECOMMENDATIONS FOR PRIORITY BIKE/PEDESTRIAN NETWORKS				
	Commercial / Retail	Residential	<1/4 Mile from Parks, Schools, Transit	History of Frequent Speeding	History of Ped / Bike Crashes
					
ROADWAY SEGMENTS					
Sidewalks and Curb Ramps	☑	☑	☑		☑
Pedestrian-Scale Lighting	☑		☑	☑	☑
Parklets	☑			☑	
Mid-Block Crossings	☑		☑		☑
Gateways	☑		☑	☑	☑
ALL INTERSECTIONS					
Crosswalks	☑	☑	☑	☑	☑
Mini-Traffic Circles	☑	☑	☑	☑	☑
Curb Extensions*	☑	☑	☑	☑	☑
Pedestrian Refuge Islands*	☑			☑	☑
RRFB (Flashing warning lights)*	☑		☑	☑	☑
In-Street Crossing Sign*	☑		☑	☑	☑
HAWK Signals	☑	☑	☑	☑	☑
AT SIGNALIZED INTERSECTIONS ONLY					
Pedestrian Countdown Signals	☑	☑	☑	☑	☑

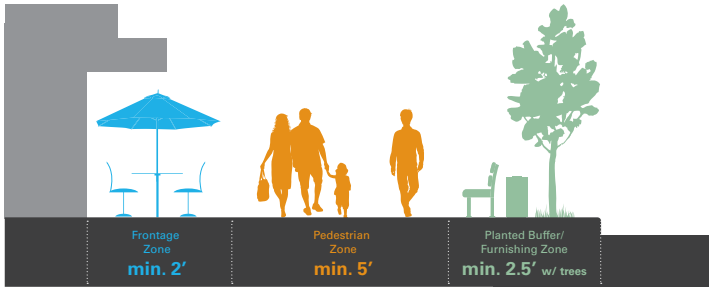
Figure 22 - Pedestrian Improvement Recommendation Matrix

SIDEWALKS

- "Backbone" of the pedestrian travel network
- Vary in their design / configuration in relationship to surrounding context (downtown, residential, commercial, etc.)
- Should be designed for universal access and ADA accessibility guidelines
- Require upkeep, maintenance, and snow or ice removal

TYPICAL APPLICATIONS / DESIGN

- Should be at least 5' wide (FHWA Recommended Guidelines/ Priorities for Sidewalks & Walkways)
- A sidewalk (8'-10'+) should be provided near parks, schools, and other major pedestrian generators sidewalks
- A minimum 2.5' buffer (4' is preferred) for street furniture, utilities, etc should be provided



Frontage Zone
In locations where buildings are adjacent to the sidewalk, the frontage zone provides a buffer between passing pedestrians and opening doors and other architectural elements. The frontage zone keeps the pedestrian zone safe and clear of obstacles and obstructions.

Pedestrian Zone
The pedestrian zone is the area of the sidewalk that is intended specifically for pedestrian travel. The pedestrian zone should be free of any physical obstructions, including street furniture, plantings, and surface utilities. The quality of the sidewalk surface in the pedestrian zone is extremely important and must meet accessibility standards referenced on page 34. The material should be smooth, level, and have minimal gaps or rough surfaces.

Planted Buffer/Furnishing Zone
Where there is sufficient space, a planted buffer/furnishing zone should be established to delineate space for objects that would otherwise obstruct pedestrian movement, as well as provide a buffer for pedestrians from the adjacent roadway. This zone is where street trees, stormwater elements, street lights, signage, hydrants, benches, trash and recycling receptacles, parking meters, signal and lighting control boxes, utility poles, and other potential obstructions should be located.

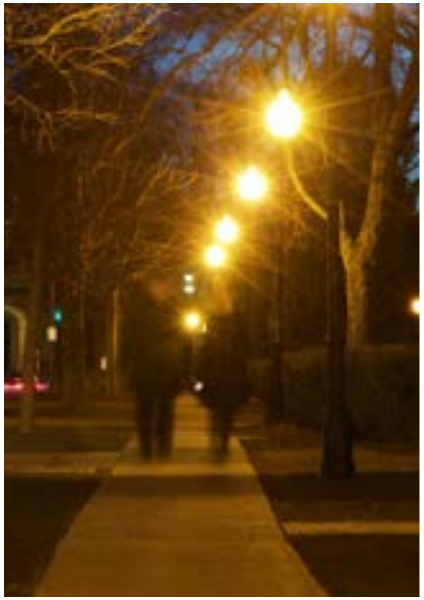
Sidewalk Design Guidance (NJDOT Complete Streets Design Guide)

PEDESTRIAN-SCALE LIGHTING

- Appropriate and adequate lighting activity is a vital measure for pedestrian safety
- Should work in concert with roadway lighting
- Should be implemented at intersections, important points of interest, and along sidewalk corridors

TYPICAL APPLICATIONS / DESIGN

- Should be carefully placed so as to illuminate crosswalks and reduce glare to motorists
- Should utilize uniform lighting levels



Pedestrian Scale Lighting in Princeton NJ. (NJDOT Complete Streets Design Guide)

PARKLETS

- Re-purpose a portion of the street next to the sidewalk -- usually 1-2 parallel parking spaces-- as public space suitable for people to use and enjoy
- Provide amenities like seating, planting, bicycle parking, WiFi, and public art

TYPICAL APPLICATIONS / DESIGN

- Can be temporary or permanent in their design, materials and applications

Parklet Design Guidance (NJDOT Complete Streets Design Guide)

MID-BLOCK CROSSINGS

- Provide safe crossing opportunities to destinations or places that are not near controlled intersections
- May incorporate additional features such as actuated warning beacons (RRFBs), signage, curb extensions, medians, etc.[5]

TYPICAL APPLICATIONS / DESIGN

- In areas where there is significant pedestrian activity
- Stop lines should be setback 20-50 feet to ensure that a pedestrian is visible to motorists
- Raised crossings can also increase visibility and encourage motorists to stop
- Can also include dedicated markings (such as crossbike) for bicycle crossings

Mid-block Crossing with curb extension and signal actuation in Bayhead, NJ

GATEWAYS

- A signing and/or landscaping treatment to alert motorists that they are entering a lower speed environment and to expect pedestrians and bicyclists.
- Can be as simple as signs and landscaping

TYPICAL APPLICATIONS / DESIGN

- Usually supplemented with other traffic calming measures such as curb extensions or bulb-outs, public art and crosswalks
- Recommended for entrances to school zones, commercial areas or busy places of activity

Gateway treatment in Newark, NJ (NJDOT Complete Streets Design Guide)

HIGH-VISIBILITY/RAISED CROSSWALKS

- Crosswalk striping that creates a high level of visual contrast with the surface of the roadway is most effective for pedestrians (including those with low vision) as well as drivers
- Raised crosswalks are elongated speed humps that feature a marked crosswalk at the same elevation as the adjacent sidewalks

TYPICAL APPLICATIONS / DESIGN

- At roadway intersections where sidewalks or other pathways are present on both sides of the roadway
- Should be designed to minimize crossing distances and should be straight, to make them easier for people with visual impairments to navigate
- Minimum width is 6’ but can be up to 15’ wide at crossings with a high number of pedestrians

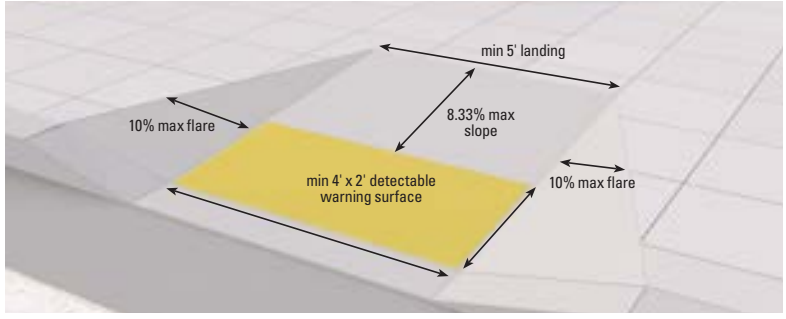
Raised Crosswalk Design Guidance (NJDOT Complete Streets Design Guide)

CURB RAMPS

- Provide pedestrians with a means of negotiating a change of elevation between the sidewalk and roadway
- Are especially important for people using wheelchairs, strollers, walkers, crutches, handcarts, and pedestrians who have trouble stepping up and down high curbs

TYPICAL APPLICATIONS

- At all intersections with marked or unmarked crosswalks
- At all mid-block crossing locations
- At on-street accessible parking spaces



Curb Ramp Design Guidance (NJDOT Complete Streets Design Guide)

MINI-TRAFFIC CIRCLES

- Typically help reduce speeds at minor intersections
- Can be installed using markings and raised islands and typically have plantings / landscaping
- Landscaping must be regularly maintained so it does not affect visibilty

TYPICAL APPLICATIONS / DESIGN

- Crosswalks should be marked clearly to specify where pedestrians can cross.
- Minimum 15 ft clearance should be provided from the corner to the widest point on the circle
- Adequate signage should be installed

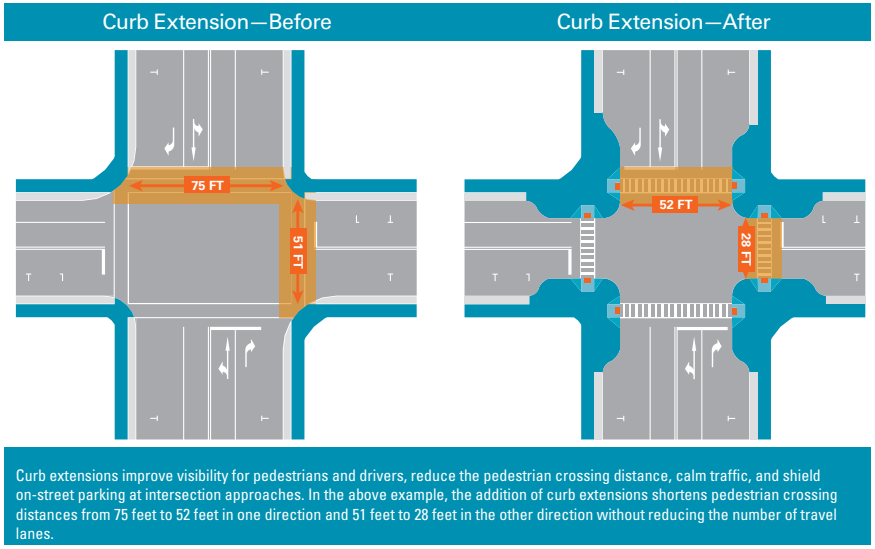
Mini-Traffic Circle, Princeton, NJ (WalkBikeNJ.com)

CURB EXTENSIONS (BUMPOUTS)

- Narrow the roadway by extending the curb at key intersections and midblock locations
- Can either be “constructed”, with curbs and concrete surface, or “painted” over existing roadway pavement

TYPICAL APPLICATIONS / DESIGN

- Can be implemented at intersections, mid-block crossings, and transit stops on all types of streets
- Should focus on areas of high pedestrian demand where traffic calming is also a priority



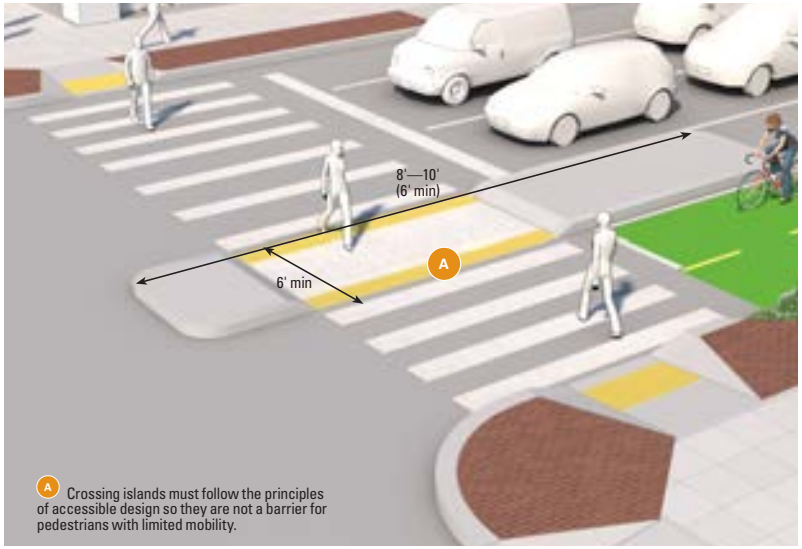
Raised Crosswalk Design Guidance (NJDOT Complete Streets Design Guide)

PEDESTRIAN REFUGE ISLAND

- Also known as crossing islands: Are protected spaces placed on a street at intersections or mid-block crossing locations to separate crossing pedestrians from motor vehicles
- Split the crossing distance into manageable portions

TYPICAL APPLICATIONS / DESIGN

- Can be used at wide intersections, irregularly shaped intersections or at intersections where two roads converge into one
- Provide a cut-through median level with roadway grade, offering a more efficient design in comparison to raised median islands



Pedestrian Refuge Island Design Guidance (NJDOT Complete Streets Design Guide)

RRFB (FLASHING WARNING LIGHTS)

- Rectangular rapid flashing beacons (RRFBs) are active warning devices used to alert motorists of crossing pedestrians at uncontrolled crossings
- Remain dark until activated by pedestrians, at which point they emit a bright, rapidly flashing yellow light, which cautions drivers that pedestrians are attempting to cross the roadway

TYPICAL APPLICATIONS / DESIGN

- Should be installed on both the right and left sides of the crosswalk, or in a median if available, on the approach to important pedestrian crossings

Rectangular Rapid Flashing Beacon in Glassboro, NJ

IN-STREET CROSSING SIGNS

- Makes it easier for pedestrian to cross at an unsignalized crossing
- Alerts motorists of the laws regarding the pedestrian right-of-way at an unsignalized pedestrian crossing
- Can be used in conjunction with other measures such as pavement markings, etc

TYPICAL APPLICATIONS / DESIGN

- At unsignalized intersections and crossings
- Typically used near schools, parks and access to trails etc
- Roadway signs need to be selected and placed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD)

In-Street Pedestrian Crossing Sign in Montclair, NJ

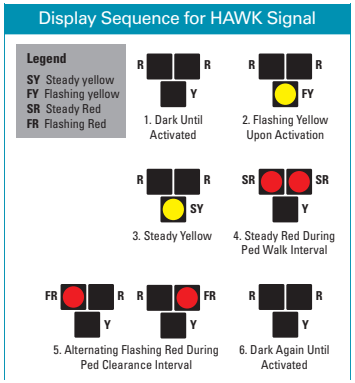
PEDESTRIAN HYBRID BEACON

- A pedestrian hybrid beacon, also known as a high-intensity actuated crosswalk or HAWK can be utilized to provide safe crossing opportunities at unsignalized crossings.
- HAWKs are a hybrid between a RRFP and a full traffic signal and cost less than pedestrian and bicycle bridges and a full traffic signal

TYPICAL APPLICATIONS / DESIGN

- At unsignalized intersections and crossings, typically along roadways with heavy traffic volumes, wide cross-sections and/or high traffic speeds
- Typically used near schools, transit stops, trails, parks etc.
- To be used in conjunction with a marked crosswalk and curb ramps
- Can be combined with curb extensions

HAWK signal in Ocean City, NJ



HAWK signal guidance
(NJDOT Complete Street Design Guide)

PEDESTRIAN COUNTDOWN SIGNALS

- Displays the number of seconds remaining in the pedestrian crossing phase
- Help pedestrians accurately decide when it is safe to cross and when they should wait

TYPICAL APPLICATIONS / DESIGN

- At intersections with complex signal phasing (e.g. there is a dedicated left turn phase for motorists)
- When an exclusive pedestrian signal phase is provided
- At school zone crossings
- At intersections with pedestrian refuge

Pedestrian Countdown Signal in Hoboken, NJ

Bicycle Network Improvements

Based on a combination of desktop analysis augmented by field verification of the preliminary network, a series of recommended bicycle facility types were developed for each network link based on the Bikeway Selection guidance in the *2017 NJ Complete Streets Design Guide*. These recommnded facility types are the ***minimum recommended bicycle facilities*** that can be accommodated based on an analysis of available roadway speed, volume, width and context. Upon further study and available right-of-way, the facility types can be upgraded to a higher level of accommodation along all of the roadways for example, bicycle lanes can be converted to buffered or protected bicycle lanes, protected bicycle lanes can be converted to shared use path.

The recommendations included in this document are preliminary and will require additional analysis prior to implementation. Coordination with the County on recommendation along County roadways will ensure successful implementation of these recommendations. Additional outreach, engineering evaluation, final design, right-of-way analysis and assessment is necessary to determine feasibility of the recommendations including striping and signing changes. Ocean County's multi-modal policy guidelines (Appendix 5) describes the design criteria and procedures in installing bicycle facilities along County roadways. The township will need to adopt an ordinance to install bicycle facilities, improvements (sidewalks and lighting) and to maintain the facilities along the County roadways.

The majority of the recommended facility types fit within the existing right of way and do not require street widening or taking of private properties. For the on-road facilities, lane diets (reducing lane widths) and road diets (reducing one travel lane), speed reductions are recommended as needed.

Shared-use paths were recommended on busy, high-speed and high–volume roadways where on-road facilities were not recommended as per the C*omplete Streets Design Guide.* The proposed network connects to existing/proposed/planned trails in Toms River to maximize off-road connectivity. These include the Winding River Trail, Barnegat Branch Trail, Cattus Island Trail, Robert Moses Trail, Stab Branch Trail, and Goose Creek trail.

Bicycle Parking

Bicycle parking is also recommended along the priority network and at the current and future kayak launch locations along the Toms River waterfront. All bicycle parking should be installed and selected based on the guidance provided by The Association of Pedestrian and Bicycle Professionals (APBP)'s The Essentials of Bike Parking guide and the NJDOT Complete Streets Design Guide (See *Figure 23 - Bicycle Parking Design Guidance*).

APBP recommends that a bicycle rack should be:

- Be intuitive to use
- Support the bicycle upright by its frame in two locations
- Enable the frame and one or both wheels to be secured
- Support bicycles without a diamond-shaped frame and horizontal top tube (e.g., step-through frames)
- Allow both front-in and back-in parking with a U-lock through he frame and front or rear wheel
- Resist the cutting or detaching of any rack element with hand tools

APBP recommends the following bicycle racks because they support the bicycle upright by its frame and enable the frame and one or both wheels to be secured:

- Inverted U
- Post & Ring
- Wheelwell-secure

APBP discourages the use of older style racks such as the "comb"/"schoolyard", "bollard", and "ribbon wave" because of their inability to properly support the bike frame, to easily secure the bike and to accommodate handlebars of adjacent bikes when near capacity.

Recommended Bicycle Rack Designs

Inverted U

Common style appropriate for many uses; two points of ground contact. Can be installed in series on rails to create a free-standing parking area in variable quantities. Available in many variations.

Post and Ring

Common style appropriate for many uses; one point of ground contact. Compared to inverted-U racks, these are less prone to unintended perpendicular parking. Products exist for converting unused parking meter posts.

Wheelwell Secure

Includes an element that cradles one wheel. Design and performance vary by manufacturer; typically contains bikes well, which is desirable for long-term parking and in large-scale installations (e.g., campuses); accommodates fewer bicycle types and attachments than the other two styles.

Racks to Avoid

Wave

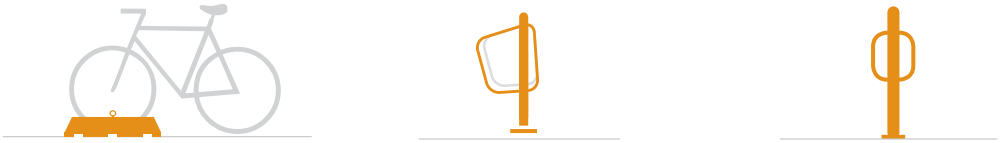
Not intuitive or user-friendly; real-world use of this style often falls short of expectations; supports bicycle frame at only one location when used as intended.

Schoolyard (comb)

Does not allow locking of frame and can lead to wheel damage. Inappropriate for most public uses but useful for temporary attended bicycle storage at events and in locations with no theft concerns.

Spiral

Despite possible aesthetic appeal, spiral racks have functional downsides related to access, real-world use, and the need to lift a wheel to park.



Wheelwell

Racks that cradle bicycles with only a wheelwell do not provide suitable security, pose a tripping hazard, and can lead to wheel damage.

Coathanger

This style has a top bar that limits the types of bicycles it can accommodate.

Bollard

This style typically does not appropriately support a bicycle's frame at two separate locations.

Figure 23 - Bicycle Parking Design Guidance (NJDOT Complete Streets Design Guide)

Sample Typologies for Facility Type Recommendations

Based on public and Steering Committee input, sample typologies were developed for each recommended facility type. These typologies illustrate how suggested treatment and facility type recommendations can be applied within a real-world context to a existing streets within the Township. The following streets are included as sample typologies for this plan:

1. **Shared-use Path** – Church Road
2. **Separated Bicycle Lanes & Sidewalks** – Whitesville Road*
3. **Buffered Bicycle Lanes & Sidewalks** - Washington Street
4. **Bicycle Lanes & Sidewalks** – Brookside Drive
5. **Shared Lane Markings & Sidewalks** – Hyers Street
6. **Shared Street** – Shore Boulevard

Each typology includes a design standards, benefits and considerations for the specific facility type. In addition, sidewalks are recommended along the proposed network links with on-road bicycle facilities.

Following the sample typologies, the recommended facility types are summarized in *Figure 24 - Recommended Concept Summary Table* (page 77) with information for each link organized by loop. The information for each link includes link name, cross streets, recommended facility types, implementation, length, and jurisdiction. The recommendations range from striping/signing to building shared-use paths. The level of effort for implementation indicates the design considerations needed for implementation.

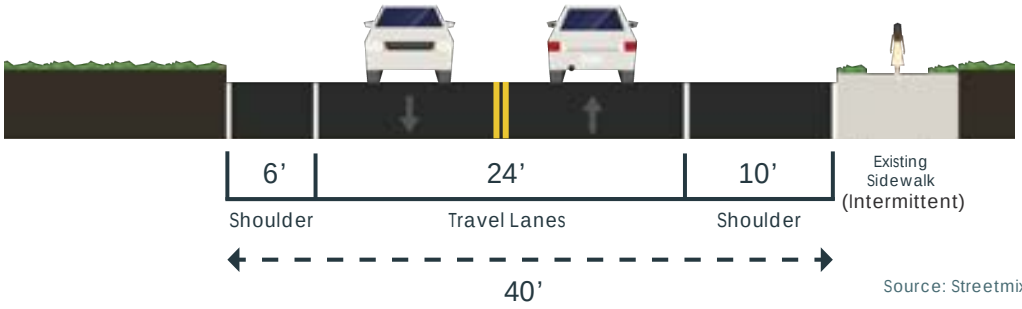
*Separated bicycle lanes should only be installed with removable delineators for winter maintenance and a approved maintenance agreement. Additional analysis should be conducted to consider installing shared use paths along these roadways given maintenance barriers associated with protected bicycle lanes with delineators.

Church Rd

Jurisdiction	AADT	Pavement Width	SPEED LIMIT
County	21,000	40 Feet	40-45

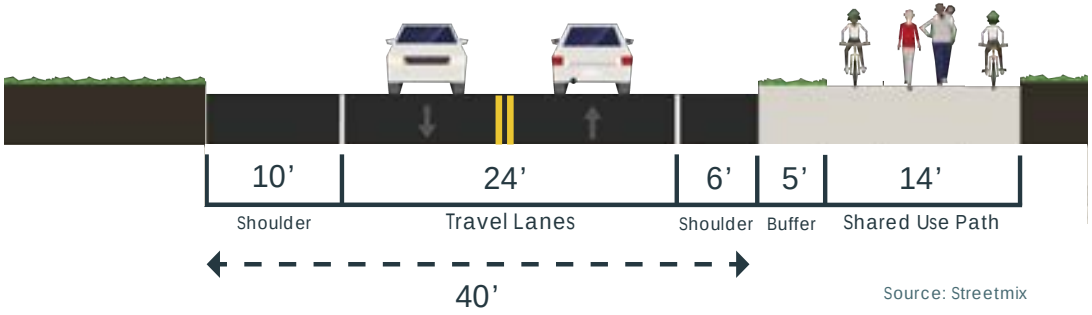
EXISTING CONDITIONS

Source: Google Street View



Source: Streetmix

PROPOSED TREATMENT



Source: Streetmix

Shared Use Path
(widen existing sidewalk where possible)

DESIGN STANDARDS

- The minimum width for a shared use path is 10 feet.
- Recommended width can differ based on context, volume, and user mix.
- Wider paths (11-14 ft) are advised where there are steep grades to provide additional passing area.

BENEFITS

- Provides complete separation from motor vehicle traffic.
- Can provide enjoyable recreational opportunities.
- Appeals to users of all ages and abilities.
- No restriction of parking necessary.

CONSIDERATIONS

- Ideal for roadways with longer blocks as additional consideration is required at driveways.
- Attract a variety of user groups who often have conflicting needs.
- Construction cost typically high.
- Environmental screening & analysis needed.

NOTE: Additional outreach, engineering evaluation, final design, right-of-way analysis and assessment is necessary to determine feasibility of the recommendations including striping and signing changes. Coordination with the county on improvements along County roadways is required.

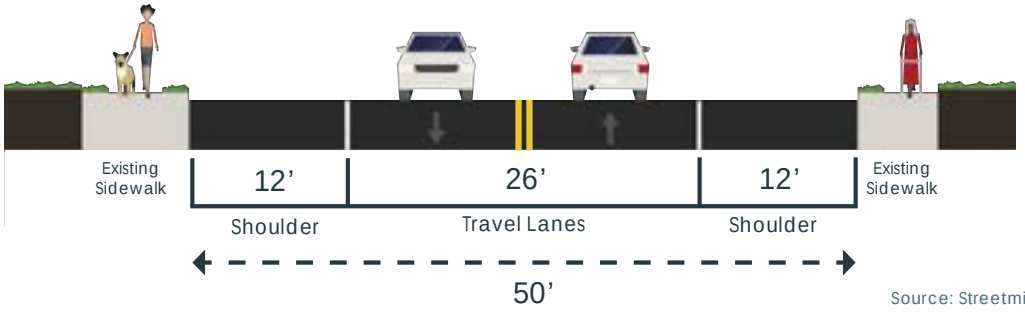
Whitesville Rd

Jurisdiction	AADT	Pavement Width
County	16,000	50 Feet

SPEED LIMIT 45

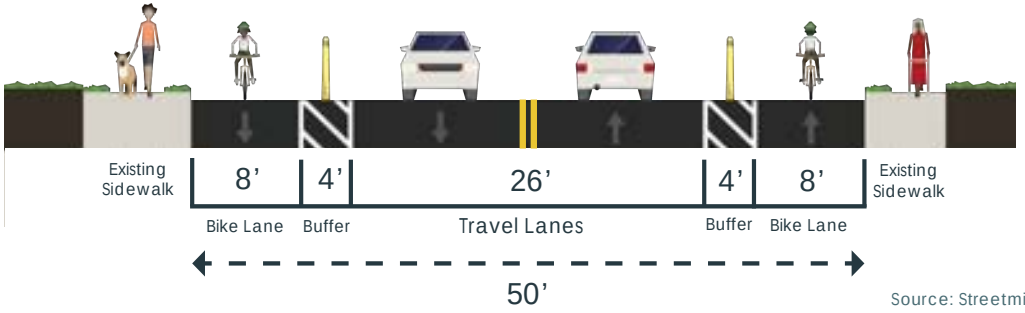
EXISTING CONDITIONS

Source: Google Street View



Source: Streetmix

PROPOSED TREATMENT



Source: Streetmix

Separated Bike Lanes & Sidewalks

DESIGN STANDARDS

- Preferred width is 6 feet with a minimum width of 5 feet.
- Preferred width of buffer with on-street parking is 3 feet. Minimum without parking is 1.5 feet.
- Minimum with between any vertical separation and the curb is 7 feet.

BENEFITS

- Provides physical barrier between bicyclists and vehicular traffic.
- Encourage increased bicyclist use among users who do not feel comfortable riding in traffic.

CONSIDERATIONS

- Maintenance along the bike lane may require smaller equipment for plowing and sweeping operations.
- Greater parking enforcement needed to prevent parking in bicycle lanes.
- Striping may require regular maintenance.

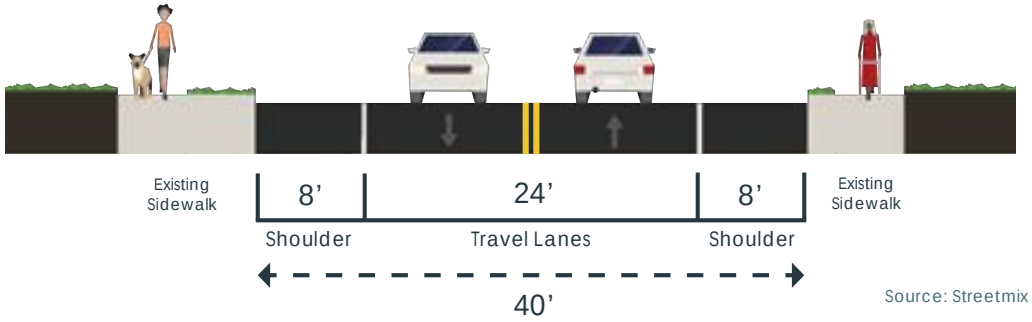
NOTE: Separated bicycle lanes should only be installed with removable delineators for winter maintenance and a approved maintenance agreement. Additional analysis should be conducted to consider installing shared use paths along these roadways given maintenance barriers associated with protected bicycle lanes with delineators. Additional outreach, engineering evaluation, final design, right-of-way analysis and assessment is necessary to determine feasibility of the recommendations including striping and signing changes. Coordination with the county on improvements along County roadways is required.

Washington St

Jurisdiction	AADT	Pavement Width	SPEED LIMIT
County	-	40 Feet	25-35

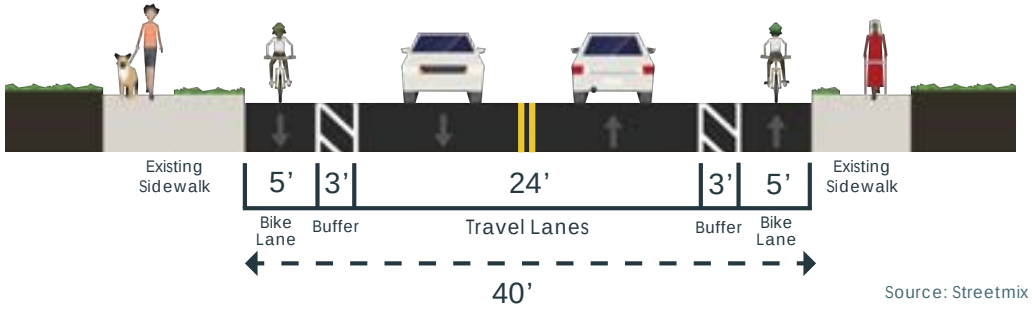
EXISTING CONDITIONS

Source: Google Street View



Source: Streetmix

PROPOSED TREATMENT



Source: Streetmix

Buffered Bike Lanes & Sidewalks

DESIGN STANDARDS

- The preferred (and minimum) width of a buffered bike lane is 5 feet.
- The preferred width of a buffer is 3 feet (min 1.5 ft)

BENEFITS

- Enables bicyclists to ride at their preferred speed without interference from traffic conditions.
- Increases shy distance between motor vehicles and bicycles. Appeals to wider cross-section of bicyclists.
- Visually reminds motorist of bicyclists’ right to the road.

CONSIDERATIONS

- Parking will likely need to be restricted and greater enforcement needed to prevent parking in bicycle lanes.
- Consider street sweeping and snow removal equipment needs.
- Striping may require regular maintenance.

NOTE: Additional outreach, engineering evaluation, final design, right-of-way analysis and assessment is necessary to determine feasibility of the recommendations including striping and signing changes. Coordination with the county on improvements along County roadways is required.

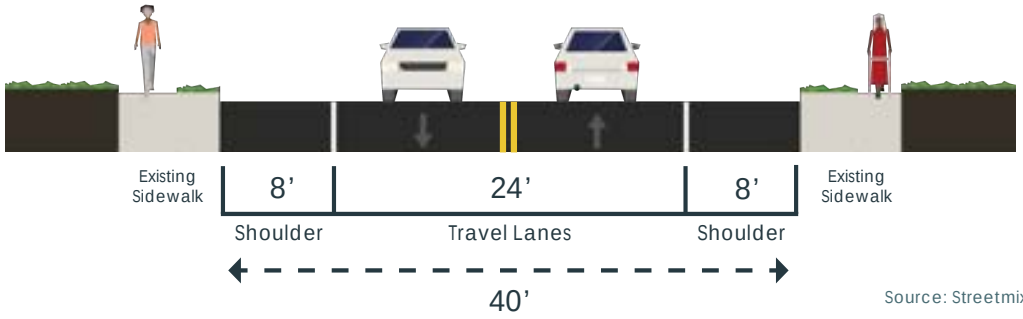
Brookside Dr

Jurisdiction	AADT	Pavement Width
County	-	40 Feet

SPEED LIMIT 40

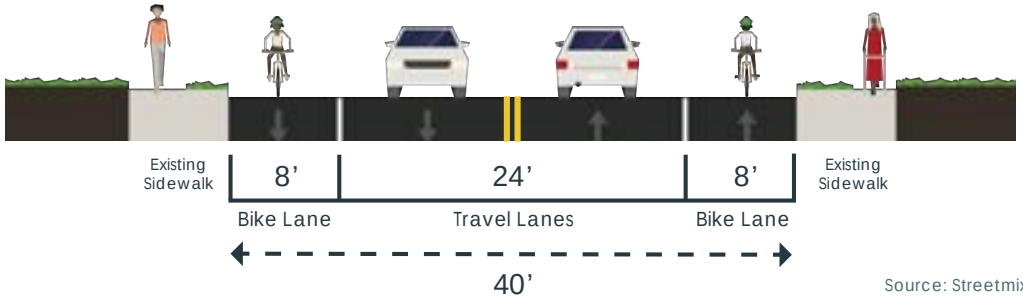
EXISTING CONDITIONS

Source: Google Street View



Source: Streetmix

PROPOSED TREATMENT



Source: Streetmix

Bike Lanes & Sidewalks

DESIGN STANDARDS

- The minimum width with no on-street parking is 5 feet adjacent to a curb, 4 feet with no curb.
- Desirable lane width adjacent to parking is 7 feet (minimum 5 feet).
- When placed next to parking lane, desirable reach from curb face to edge of bicycle lane is 14.5 feet.

BENEFITS

- Striping offers visual separation and reminds people that the road is a shared space.
- Produces traffic calming effect.
- Provides a viable option for bicycle facilities on narrow roadways.

CONSIDERATIONS

- Less protection for cyclist than a buffered or protected bicycle lane.
- Unfamiliarity with the treatment can lead to confusion.
- May require restrictions on parking on narrow roads.

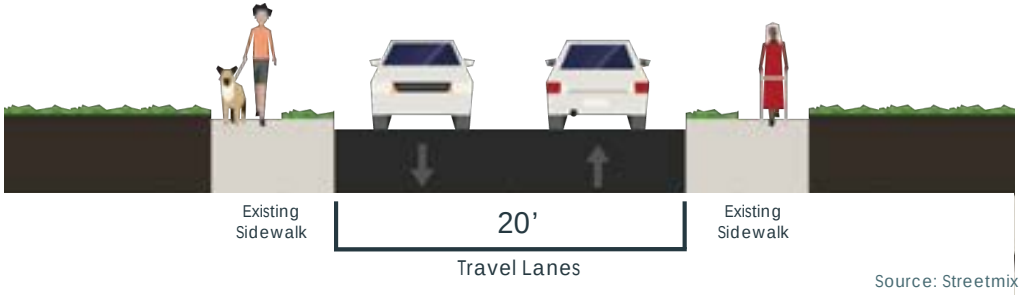
NOTE: Additional outreach, engineering evaluation, final design, right-of-way analysis and assessment is necessary to determine feasibility of the recommendations including striping and signing changes. Coordination with the county on improvements along County roadways is required.

Hyers St

Jurisdiction	AADT	Pavement Width	SPEED LIMIT
Local	-	20 Feet	25

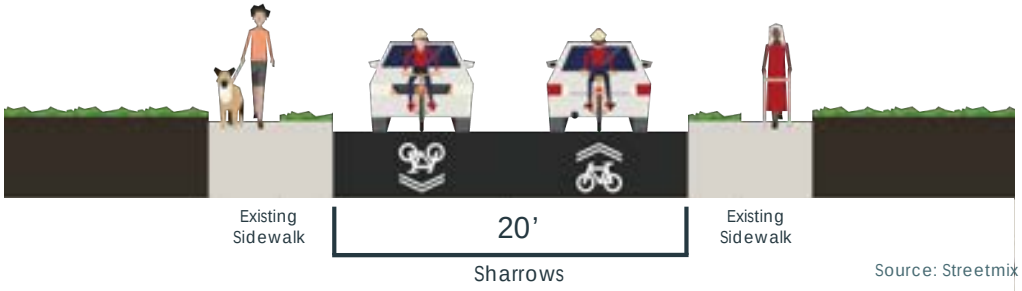
EXISTING CONDITIONS

Source: Google Street View



Source: Streetmix

PROPOSED TREATMENT



Source: Streetmix

Shared Lanes & Sidewalks

DESIGN STANDARDS

- When adjacent to parking, shared-lane markings should be placed a minimum of 11 feet from curb (4 feet without parking).
- The preferred placement of a shared-lane marking is at the center of the travel lane.

BENEFITS

- Indicates the most appropriate and safe location to ride with respect to parked cars and moving traffic.
- Reinforces the legitimacy of bicycle traffic on the street.
- Requires no restrictions on parking.
- Can be used to fill gaps in bicycle network.

CONSIDERATIONS

- Requires posted speed limit of 25 MPH or less.
- Not ideal for high volume roadways.
- Does not dedicate exclusive use for bicyclists.

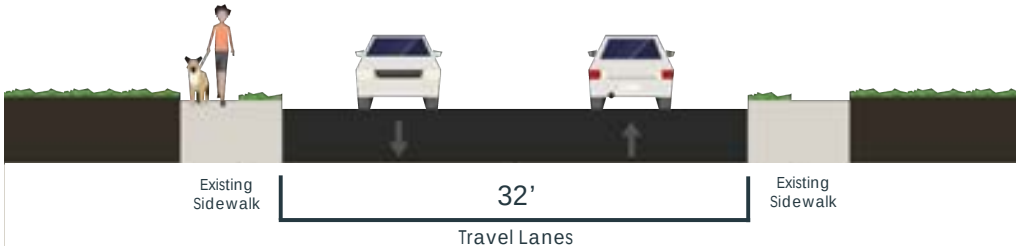
NOTE: Additional outreach, engineering evaluation, final design, right-of-way analysis and assessment is necessary to determine feasibility of the recommendations including striping and signing changes. Coordination with the county on improvements along County roadways is required.

Shore Blvd

Jurisdiction	AADT	Pavement Width	Speed Limit
Local	-	32 Feet	25

EXISTING CONDITIONS

Source: Google Street View



Source: Streetmix

Note:
- Low Speed
- Low volume

PROPOSED TREATMENT

Signage & Markings (optional)

Source: NACTO

Source: NACTO

- Signs and pavement markings indicate and reinforce that a roadway/corridor is intended as a shared, slow street.
- Wayfinding signs guide users through jogs, and include information about the route.

Speed Limit

SPEED LIMIT <25

- Shared streets should have a max posted speed limit of 25 MPH (less than 25 MPH recommended).
- Decreased speeds improve bicycle and pedestrian comfort.

Horizontal Deflection (optional)


Curb Extension Source: NACTO


Chicaned Roadway Source: NACTO

- Curb extensions extend the sidewalk into the parking lane at an intersection, increase pedestrian visibility, and reduce crossing distance. Use paint and temporary bollards for low cost option.
- Chicanes can reduce motor vehicle speeds by requiring drivers to shift laterally through narrowed travel lanes.

Shared Street

DESIGN STANDARDS

- Linear corridors of interconnected, traffic-calmed streets.
- Typically utilize signs/pavement markings & speed/volume management measures.

BENEFITS

- Enhance safety/comfort through a variety of design treatments that discourage high vehicular speed & volumes.
- Can be applied to many local streets with low speeds/volumes at minimal cost and design intervention.

CONSIDERATIONS

- Shared streets should have 85th percentile speeds at 25 MPH or less (NACTO).
- May require a combination of treatment approaches to achieve speed & volume reductions

NOTE: Additional outreach, engineering evaluation, final design, right-of-way analysis and assessment is necessary to determine feasibility of the recommendations including striping and signing changes. Coordination with the county on improvements along County roadways is required.

CONCEPT RECOMMENDATION SUMMARY TABLE

No.	Network	Cross Street	Cross Street	Minimum Recommended Facility Type	Level of Effort	Length (miles)	Jurisdiction
Downtown Loop (~7 miles)							
1	Highland Parkway	W Water Street	W Gateway	Shared Use Path	Construction required	0.58	County
2	W Gateway/S Gateway	Main Street	King Street	Shared Lane Markings**	Signing and striping	0.27	Local
3	King Street	S Gateway	Route 37	Shared Lane Markings**	Signing and striping	0.25	Local
	Option A: Bike/Ped Bridge						
4	Route 37	King Street	Hooper Avenue	1. Construct crosswalk and add traffic signal/HAWK or 2. Bike/Ped Bridge and Shared Use Path	Consider adding a traffic signal or HAWK with a crosswalk Or construct pedestrian bridge and shared use path, right of way impacts and parking reconfiguration anticipated	0.41	NJDOT
5	Dean Street/ Berry Avenue	Route 37	James Street	Shared Lane Markings**	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	0.14	Local
6	James Street	Berry Avenue	Park Crest Road	Shared Lane Markings**	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	0.15	Local
7	Park Crest Road	James Street	Walnut Street	Shared Lane Markings**	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	0.16	Local
	Option B: Hooper Ave intersection						
8	Route 37	King Street	Hooper Avenue	1. Construct crosswalk and add traffic signal/HAWK or 2. Bike/Ped Bridge and Shared Use Path	Consider adding a traffic signal or HAWK with a crosswalk Or construct pedestrian bridge and shared use path, right of way impacts and parking reconfiguration anticipated	0.41	NJDOT
9	Hooper Avenue	Route 37	Division St	Shared Use Path	Construction required	0.04	County
10	Division Street	Hooper Avenue	Boyd Street	Shared Use Path & Shared Lane Markings**	Construction required, Signing and striping	0.19	Local

Figure 24 - Concept Recommendation Summary Table

* Separated bicycle lanes should include removable delineators to simplify winter maintenance as part of an approved maintenance agreement. Additional analysis should be conducted to consider installing shared use paths along these roadways given maintenance constraints associated with protected bicycle lanes with delineators.

** Due to limited roadway speed data available, shared lane markings on recommended roadways should be installed only after verifying the speed limit. Shared Lane Markings should only be installed on roadways with speed limits of 25 mph or lower. If the speed is higher than 25 mph, then additional study should be conducted to to reduce the speed limit or to upgrade to bicycle lanes or higher accommodation.

No.	Network	Cross Street	Cross Street	Minimum Recommended Facility Type	Level of Effort	Length (miles)	Jurisdiction
11	Boyd Street	Division Street	James Street	Shared Lane Markings**	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	0.08	Local
12	James Street	Dean Street	Roberts Avenue	Shared Lane Markings**	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	0.03	Local
13	Roberts Avenue	James Street	Walnut Street	Shared Lane Markings**	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	0.16	Local
14	Walnut Street	Park Crest Rd/ Roberts Ave	Edken Avenue	Shared Lane Markings**	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	0.67	County
15	Edken Avenue	Hooper Avenue	Cedar Grove Road	Shared Lane Markings**	Signing and striping	0.19	Local
16	Cedar Grove Road	Edken Avenue	Clifton Avenue	Buffered Bike Lanes	Lane diet (11'), striping	0.27	County
17	Clifton Avenue	Cedar Grove Road	Washington Street	Bike Lanes	Lane diet (11'), striping	1.89	County
18	Washington Street	Whittier Ave	Maiden Lane	Buffered Bike Lanes	Lane diet (11'), striping	0.95	County
19	Maiden Lane	Washignton Street	Brooks Road	Shared Lane Markings**	Signing and striping	0.13	Local
20	Brooks Road	Maiden Lane	Dock Street	Shared Lane Markings**	Signing and striping	0.08	Local
21	E Water Street	Dock Street	Hooper Avenue	Buffered Bike Lanes	Signing and striping	0.25	County
22	E Water Street	Hooper Avenue	Main Street / Route 166	Shared Use Path	Lane diet (11') and relocate curb for shared use path on the south side	0.26	County
Loop 1: Bey Lea - Money Island (~7 miles)							
23	Oak Ridge Parkway	Winding River Trail	Indian Head Road	Shared Use Path	Construction required (recommended west side)	0.32	Local
24	Indian Head Road	Oak Ridge Parkway	N Bay Avenue	Shared Use Path	Construct shared use path along south side	1.80	County
25	N Bay Avenue	Indian Head Road	Oak Avenue	Separated Bike Lanes**	Lane diet (11'), striping	0.33	County

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No.	Network	Cross Street	Cross Street	Minimum Recommended Facility Type	Level of Effort	Length (miles)	Jurisdiction
26	Oak Avenue	N Bay Avenue	Freedom Park Trail	Shared Use Path	Construction required	0.60	County
27	Freedom Park Trail	Oak Avenue	Indian Hill Road	Existing Trail	Requires maintenance and construction	0.28	Local
28	Indian Hill Road	Freedom Park Trail	Yellowbank Road	Buffered Bike Lanes	Lane diet (11'), striping	0.04	County
29	Yellowbank Road	Indian Hill Road	Cedar Grove Road	Bike Lanes	Lane diet (11'), striping	0.42	Local
30	Cedar Grove Road	Yellowbank Road	Brookside Drive	Bike Lanes	Signing and striping	1.16	County
31	Brookside Drive	Cedar Grove Road	Route 37	Bike Lanes	Signing and striping	1.01	County
32	Route 37	Brookside Drive	Law Street	Shared Use Path	Construction required (recommended north side)	0.26	NJDOT
33	Washington Street	Route 37	Whittier Avenue	Buffered Bike Lanes	Lane diet (11'), striping	0.19	County
34	Whittier Avenue	Washington Street	Keats Avenue	Shared Lane Markings***	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	0.23	Local
Loop 2 - Whitty Road - OC College (~11 miles)							
35	Barnegat Branch Trail	Township Border	Railroad Corridor	Planned Trail	Construction required	0.30	County
36	Railroad Corridor	arnegat Branch Tra	Winding River Trail	Proposed Trail	Construction required	0.38	RR
37	Winding River Trail	Railroad Corridor	BSA Property	Existing Trail	Requires maintenance and construction, potential to utilize Utility path south of Route 37, a new pedestrian bridge would be required across Route 37 to Hospital Drive traffic light.	2.65	Local
38	CR 571/Ridgeway Road	BSA Property	Clayton Avenue	Shared Use Path	Along north side	0.07	County
39	Clayton Avenue	dgeway Road/CR 5	Route 9	Buffered Bike Lanes	Lane diet (11'), striping	0.83	County
40	Route 9	Clayton Avenue	Whitty Road	Shared Use Path	Construction required	0.24	NJDOT
41	Whitty Road (west)	Route 9	Old Freehold Road	Buffered Bike Lanes	Striping in shoulder	0.64	Local

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** Due to limited roadway speed data available, shared lane markings on recommended roadways should be installed only after verifying the speed limit. Shared Lane Markings should only be installed on roadways with speed limits of 25 mph or lower. If the speed is higher than 25 mph, then additional study should be conducted to to reduce the speed limit or to upgrade to bicycle lanes or higher accommodation.

No.	Network	Cross Street	Cross Street	Minimum Recommended Facility Type	Level of Effort	Length (miles)	Jurisdiction
42	Old Freehold Road	Whiity Road (west)	Whiity Road (east)	Buffered Bike Lanes	Construct shared use path under GSP	0.11	County
43	Whitty Road (east)	Old Freehold Road	N Bay Avenue	Buffered Bike Lanes	Striping in shoulder	0.73	Local
44	OCC Drive	N Bay Avenue	Hooper Avenue/Trail	Shared Lane Markings**	Signing and striping, additional outreach and coordination with County Park department and Ocean County College is required prior to implementation.	1.53	County
45	Trail (near Intermediate school on Hooper Avenue)	Hooper Avenue	Cedar Grove Road	Existing Trail	Requires maintenance and construction	0.57	NJDEP
46	Cedar Grove Road	Trail	Yellowbank Road	Shared Lane Markings**	Signing and striping	0.60	County
47	Yellowbank Road	Cedar Grove Road	Flaam St/Verdant Road	Shared Street	Signing and striping	0.15	Local
48	Vaughn Avenue (CR 627)	Verdant Road	Route 37	Separated Bike Lanes*	Lane diet (11'), striping, flexible bollards	2.08	County
49	West End Avenue (CR 627)	Route 37	Whittier Avenue	Buffered Bike Lanes	Lane diet (11'), striping	0.20	County
50	Whittier Avenue	W. End Avenue	River Drive	Shared Street	Signing and striping	0.11	Local
51	River Drive	Whittier Avenue	Riviera Ave/Waterfront	Shared Street	Signing and striping	0.20	Local
Loop 3: Winding River - Cattus Island (~16 miles)							
52	Barnegat Branch Trail (Toms River)	Township border	Railroad Corridor	Planned Trail	Construction required	0.38	County
53	Railroad Corridor	Wrangle Brook Road	BBT	Proposed Trail	Construction required	1.89	RR
54	Wrangle Brook Road	Railroad Corridor	Route 37	Shared Lane Markings**	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	0.27	Local
55	Cardinal Drive	Route 37	Oak Leaf Lane	Shared Lane Markings**	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	0.48	Local

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** Due to limited roadway speed data available, shared lane markings on recommended roadways should be installed only after verifying the speed limit. Shared Lane Markings should only be installed on roadways with speed limits of 25 mph or lower. If the speed is higher than 25 mph, then additional study should be conducted to to reduce the speed limit or to upgrade to bicycle lanes or higher accommodation.

No.	Network	Cross Street	Cross Street	Minimum Recommended Facility Type	Level of Effort	Length (miles)	Jurisdiction
56	Oak Leaf Lane	Cardinal Drive	Sun Valley Road	Shared Street	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	0.23	Local
57	Sun Valley Road	Oak Leaf Lane	Winding River Trail	Shared Street	Signing and striping	0.14	Local
58	Winding River Trail	Sun Valley Road	Riverwood Drive	Existing/Planned Trail	Requires maintenance and construction	0.25	Local
59	Riverwood Drive	Winding River Trail	Whitesville Road	Shared Street	Signing and striping	0.27	Local
60	Whitesville Road	Riverwood Drive	Stevens Road	Separated Bike Lanes*	Striping, flexible bollards, 10' bicycle lane and 3' buffer, lower speed limit to 40 mph	0.50	County
61	Stevens Road	Whitesville Road	Route 9 / Utility Path	Bike Lanes	Lane diet (11'), Striping	0.61	County
62	Utility Path	Route 9	Cobblestone Ct	Shared Use Path	Public access required	0.17	Utility
63	Church Road / CR 620	New Hampshire Road / CR 623	Hooper Avenue	Shared Use Path	Construction required	3.79	County
64	Hooper Avenue	Church Road	Trail	Shared Use Path	Construction required for shared use path (ROW impacts anticipated), SLM to be installed on Hinds Drive and Larch Road in conjunction with the OCC roads/trails to Fischer Blvd. Additional outreach to be conducted with Ocean County College prior to implementation.	1.70	County
65	Trail (near Intermediate school on Hooper Avenue)	Hooper Avenue	Shore Blvd	Existing Trail	Requires maintenance and construction	0.95	NJDEP
66	Shore Blvd	Trail	Maypink Drive	Shared Street	Signing and striping	0.56	Local
67	Maypink Drive	Shore Blvd	Merrimac Drive	Shared Street	Signing and striping	0.06	Local

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No.	Network	Cross Street	Cross Street	Minimum Recommended Facility Type	Level of Effort	Length (miles)	Jurisdiction
68	Merrimac Drive	Maypink Drive	Cattus Island Trail	Shared Lane Markings**	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	0.10	Local
69	Cattus Island Trail	Merrimac Drive	Bay Avenue	Existing Trail	Requires maintenance and construction	1.74	County
70	Bay Avenue	Cattus Island Trail	Portabello Road	Shared Use Path	Construction required	0.09	County
71	Bay Avenue	Portabello Road	Fischer Blvd	Buffered Bike Lanes	Lane diet (11'), striping	0.22	County
72	Fischer Blvd	Bay Avenue	Cottonwood Drive	Shared Use Path	Construction required	0.05	County
73	Cottonwood Drive	Fischer Blvd	Garfield Avenue	Shared Lane Markings**	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	0.05	Local
74	Garfield Avenue	Cotonwood Drive	Waterfront	Shared Lane Markings**	Lower speed limit to 25 mph or to stripe advisory bicycle lanes (north of Matso Drive)or bicycle lanes(5') south of Matso Drive	1.76	Local
Loop 4: Northern Tier (~8 miles)							
75	Whitesville Road / Route 527	Riverwood Road	Township border/Locust Manor	Separated Bike Lanes*	Striping, flexible bollards, Lower speed limit to 40 mph	3.12	County
76	Stab Branch Trail	Whitesville Road	Cox Cro Road	Existing Trail	Requires maintenance and construction	0.42	Local
77	Cox Cro Road	Trail	Massachussets Avenue	Shared Use Path	Construction required	0.11	County
78	Massachussets Avenue	Cox Cro Road	N Maple Avenue	Separated Bike Lanes*	Lane diet (11'), striping, flexible bollards	0.97	County
79	N Maple Avenue	assachussets Aven	Robert Moses Trail	Shared Lane Markings**	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	0.18	County
80	Robert Moses Trail	N Maple Avenue	N Maple Avenue	Existing Trail	Requires maintenance and construction	0.32	Local
81	N Maple Avenue	Robert Moses Trail	New Hampshire Road	Shared Use Path	Construction required	1.29	County

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** Due to limited roadway speed data available, shared lane markings on recommended roadways should be installed only after verifying the speed limit. Shared Lane Markings should only be installed on roadways with speed limits of 25 mph or lower. If the speed is higher than 25 mph, then additional study should be conducted to to reduce the speed limit or to upgrade to bicycle lanes or higher accommodation.

No.	Network	Cross Street	Cross Street	Minimum Recommended Facility Type	Level of Effort	Length (miles)	Jurisdiction
82	New Hampshire Road / CR 623	N Maple Avenue	Church Road	Separated Bike Lanes*, akternate option is to consider a Shared Use path	Lane diet (11'), striping, flexible bollards	1.52	County
Downtown Grid (~3 miles)							
83	Irons Street/ Legion Ct	Herflicker Blvd	Hyers Street	Shared Lane Markings**	Signing and striping	0.07	NJDOT/Local
84	Hyers Street/ Dayton Avenue	Washington Street	Route 37	Shared Lane Markings**	Signing and striping	0.59	Local
85	Melrose Drive	Hooper Avenue	Dayton Avenue	Shared Lane Markings**	Signing and striping	0.34	
86	Central Avenue/ Clinton Avenue/ Hadley Avenue	Washington Street	Hooper Avenue	Shared Lane Markings**	Signing and striping	0.31	Local
87	Grand Avenue/ Dickenson Avenue/ Batchelor Street/ Grand Street	Hooper Avenue	Route 37	Shared Lane Markings**	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	1.31	Local
Connectors (~19 miles)							
88	Washington Street	Clifton Avenue	Whittier Avenue	Buffered Bike Lanes	Lane diet (11'), striping	0.60	County
89	Elizabeth Avenue/ Garden Ave/ Chadwick Avenue/ Parkside Avenue	W. End Avenue	Garfield Avenue	Shared Lane Markings**	Signing and striping	0.95	Local
90	Ocean View Drive/ Princess Court/ Somerset Drive/ Red Cedar Street	Brookside Drive	Coolidge Avenue	Shared Lane Markings**	Signing and striping	1.55	Local
91	Existing Trail network / Goose Creek Path	Coolidge Avenue north of Red Cedar Street	Garfield Ave at Matso Drive	Shared Use Path	Existing trail	1.08	Local
92	Goose Creek Road/ new Jersey Avenue/ Fairview Drive/ Fischer Blvd/ Cattus Island Blvd	Vaughn Ave	Cattus Island Trail	Shared Lane Markings** / Shared Use Path (Fischer Blvd)	Signing and striping	1.27	Local
93	Silver Bay Road	Hooper Avenue	Brand Road	Shared Lane Markings**	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	0.93	County

* Separated bicycle lanes should include removable delineators to simplify winter maintenance as part of an approved maintenance agreement. Additional analysis should be conducted to consider installing shared use paths along these roadways given maintenance constraints associated with protected bicycle lanes with delineators.

** Due to limited roadway speed data available, shared lane markings on recommended roadways should be installed only after verifying the speed limit. Shared Lane Markings should only be installed on roadways with speed limits of 25 mph or lower. If the speed is higher than 25 mph, then additional study should be conducted to to reduce the speed limit or to upgrade to bicycle lanes or higher accommodation.

No.	Network	Cross Street	Cross Street	Minimum Recommended Facility Type	Level of Effort	Length (miles)	Jurisdiction
94	Brand Road	Silver Bay Road	Kettle Creek Road	Shared Lane Markings**	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	0.79	Local
95	Kettle Creek Road	Hooper Avenue	Green Island Way	Shared Lane Markings**	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	1.43	County
96	OCC Trails	Hooper Avenue at Fischer Blvd	Church Road	Shared Use Path	Requires maintenance and construction. Additional outreach to be conducted with Ocean County College prior to implementation.	NA	County
97	Utility Corridor	Old Freehold Road	N. Bay Ave	Shared Use Path	Public access required	1.84	Utility
98	N. Bay Ave	Utility Corridor	Church Road	Buffered Bike Lanes	Lane diet (11'), striping	0.17	County
99	Old Freehold Road	Todd Road	Walnut Street	Separated Bike Lanes*	Lane diet (11'), striping	3.22	County
100	Chestnut Street	Old Freehold Road	Hooper Avenue/ Caudina Ave	Bike Lanes	Lane diet (11'), striping	0.83	County
101	Caudina Avenue / Salerno Avenue / Amalfy Avenue	Hooper Avenue	OCC Mall	Shared Lane Markings**	Signing and striping, reduce speed limit (25 mph) or evaluate if bicycle lanes can be installed	0.55	County
102	Cedar Grove Road	Hooper Avenue	Edken Avenue	Buffered Bike Lanes	Lane diet (11'), striping	0.33	County
103	Cedar Grove Road	Clifton Avenue	Brookside Drive	Buffered Bike Lanes	Lane diet (11'), striping	0.25	County
104	Morris Blvd	Garfield Avenue	Coolidge Avenue	Shared Lane Markings**	Signing and striping	0.59	County
105	Coolidge Avenue	Morris Blvd	N. Bay Ave	Buffered Bike Lanes	Signing and striping	2.79	County

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Programmatic Recommendations

A safe and welcoming walking and bicycling environment requires more than just the presence of facilities and amenities. Education, encouragement, enforcement, and evaluation and planning measures are needed to support and complement the engineering recommendations. These programmatic non-infrastructure recommendations address unsafe behaviors, the development of bicycling skills, general awareness and support for walking and bicycling, and tracking strategies to guide future improvements.

This section highlights and describes the list of programmatic recommendations below that foster a culture that values walking and bicycling, with a focus on meeting Plan goals and objectives.

Education

- Street Smart NJ
- Community-Oriented Traffic Calming
- Community-Oriented Traffic Calming
- Traffic Safety Curriculum
- League of American Bicyclist's League Cycling Instruction (LCI) program
- Signs

Encouragement

- Bicycle Mentor Program
- Social Bicycle Rides
- Safe Routes to School (SRTS)
- Bike Rodeo
- Open Streets Event
- Annual Park(ING) Day
- Bike Sharing Programs
- Bicycle to School and Walk to School Policies

Enforcement

- Pedestrian Safety Enforcement Program
- New Jersey Crossing Guard Training Program
- Feedback Signs
- Police Bike Patrol

Education

The need to educate all users on their rights and responsibilities was identified as a key issue by the steering committee, public, and Township officials. The programs and efforts discussed below focus on educating residents and visitors on safe walking, bicycling, and driving.

Street Smart NJ

The Township should implement the Street Smart NJ pedestrian safety campaign. The Street Smart NJ campaign urges motorists and pedestrians to “check their vital signs” to improve safety on the road. Materials from the campaign are available on the campaign website and may be reproduced and used without permission. Logos and local sponsorship information may be added to all artwork.

http://bestreetsmartnj.org/

Community-Oriented Traffic Calming

A community-oriented traffic calming campaign should be implemented in Toms River to inform drivers that they are traveling on neighborhood streets and remind drivers to slow down. Yard signs are designed to be placed on private property within front and side yards and act as an educational and awareness tool. Another example of a community-oriented program is the “20 is Plenty” campaign. “20 is Plenty” encourages drivers to drive no faster than 20 mph despite the 25 mph speed limit. At 20 mph the risk of pedestrian fatality drops to just 5% compared to 45% at 30 mph.

Traffic Safety Curriculum

An excellent way to encourage traffic safety from an early age is to implement K-8 traffic safety curriculum at local schools within Toms River. The New Jersey Safe Routes to School Resource Center has compiled lesson plans and supporting information to enhance pedestrian and bicycle safety in schools.

www.saferoutesnj.org/resources/education/

League of American Bicyclist’s "League Cycling Instructor (LCI) Program"

The Township should sponsor a member of the Police Department to partcipate in the League of American Bicyclist’s League Cycling Instructor (LCI) Program. LCIs are certified to teach the League's Smart Cycling classes to children as well adults. The League's goal is to help people feel more secure about getting on a bike, to raise awareness that bikes are treated as a vehicle, and to ensure that people on bikes know how to ride safely and legally.

Signs

Signs that encourage pedestrian and bicyclist safety should be installed. Examples of such signs are "**Pedestrians Use Sidewalks**" and "**Cross at Intersections**" and "**Bicyclists and Skaters Keep Right**", "**Go with Traffic**", **"Obey all Stop Signs and Traffic Signals"**.

Encouragement

The programs listed below can help supplement and enhance the Township's current activities.

Bicycle Mentor Program

The Township should support and coordinate a bicycle mentor program where experienced bicyclists are matched with less confident bicyclists. This would encourage new/less confident bicyclists to bicycle more frequently and support the development of safe cycling skills. An example is Culture Link in Toronto, Canada, that has a program called Bike Host which matches amateur bicyclists with experience mentors who ride regularly.

Social Bicycle Rides

The Township can support and host monthly social rides for community groups and constituents that cover various themes. For example, Kidical Mass is a global family bike ride that takes place in September - www.kidicalmass.org. The main goal of Kidical Mass is to teach kids

and parents safety skills and to encourage bicycling as a means of transportation.

Safe Routes to School (SRTS)

The Toms River SRTS program can be expanded to include other activities such as completing a School Travel Plan and implementing a tracking system to monitor use.

A School Travel Plan “maps out” how to improve pedestrian and bicycle travel to and from school. Municipalities registered for Sustainable Jersey and Sustainable Jersey for Schools certification can include School Travel Plans as part of the submission requirements. When future NJDOT SRTS infrastructure grant opportunities are announced, municipalities/ schools will be eligible for extra points for submitting School Travel Plans in the application.

Another example of encouraging walking and biking to school in a fun and educational way is to consider using a tracking system to monitor SRTS use. Montclair’s Edgemont Elementary School’s “Boltage at Edgemont” program is an example. The students attach a radio frequency identification tags to their backpacks which tracks their trips to school. A solar-powered Boltage “Zap" machine records the information which can be accessed online. Students can also track their miles traveled, number of calories burned, and pounds of CO2 saved by replacing a car or bus trip with walking or biking. The students are further encouraged to bike or walk to school by rewards for more trips and recognition for exceptional student achievement in the school’s PTA newsletter.

Toms River should work towards acheiving the Gold Level in the NJ Safe Routes to School Recognition Program. Municipalities and schools can either be nominated by their Safe Routes Regional Coordinator from the Greater Mercer TMA or can self-nominate for recognition as a result of involvement and commitment to Safe Routes programs in their community or schools. Recipients will be presented with a certificate or award depending on the level of recognition, and they will also be listed and promoted on the NJ SRTS website and possibly other local media and newsletters facilitated by Regional Coordinators.

http://www.saferoutesnj.org/

Bike Rodeo

The Township should work with the Ocean County Security Department Bike Patrol to host Bike Rodeos at local schools in Toms River. A Bike Rodeo is a bicycling skills event which provides an opportunity for bicyclists to practice and develop skills to ride safely and avoid accidents.

www.co.ocean.nj.us/SecurityDept/BikePatrol.aspx

Open Streets Event

An Open Streets event can be hosted in Toms River by temporarily closing streets to motor vehicles and focusing on activities such as a bike rodeo, fitness activities, bicycle maintenance education, and rules of the road education. An example of such an event is the Ciclovia event in New Brunswick, NJ. In New Brunswick, the Ciclovia event is hosted 3-4 times a year during which certain streets are temporarily car-free for 5 hours for families to enjoy activities along the route and to walk, bike, run, skate, and play.

Annual Park(ING) Day

The Township should encourage participation in the annual PARK(ing) Day which is held worldwide on the third Friday in September. During this event, artists, designers, and citizens transform parking spaces into temporary public parks. Toms River can temporarily convert one or more parking space in the Town Center, such as along Washington Street, into a parklet.

Bike-Sharing Programs

A bike-sharing program in Toms River will encourage more residents and visitors to bike. The Township should conduct a pilot evaluation of bicycle sharing program. Collingswood Bike Share is a good example of a small-scale bike share. The program operates like a library where residents can borrow a bike (for a small fee and/or a signature on an agreement and a liability waiver) and return it when done.

Bicycle to School and Walk to School Policies

The Township should work with the Board of Education to adopt Bicycle to School and Walk to School ordinances. Adopting such policies can encourage children to walk and bike to school and build a culture of health and wellness in schools and municipalities. The NJ SRTS Resource Center has model policies that can be modified.

www.saferoutesnj.org/resources/tips-tools-and-more/

Enforcement

Consistent enforcement of traffic laws is one of the most important steps a municipality can take to keep pedestrians, bicyclists, and drivers safe. This includes enforcing crosswalks laws, speed limits, and distracted driving laws, and issuing citations to pedestrians and bicyclists who engage in illegal risk-taking behaviors.

Pedestrian Safety Enforcement Program

The Township should utilize the Pedestrian Safety Enforcement (PSE) program sponsored by the NJ Division of Highway Traffic Safety (DHTS), with support from NJDOT, to increase driver knowledge of the "Stop and Stay Stopped for Pedestrians" law. DHTS and NJDOT offer training on PSE to local police departments that address two important contributing factors to pedestrian crashes: driver knowledge of the law and driver yielding behavior.

New Jersey Crossing Guard Training Program

The Township's crossing guard supervisor should attend a New Jersey Crossing Guard Training Program workshop hosted by the NJ Safe Routes to School Resource Center. These workshops are intended to assist school crossing guard supervisors with extensive training to help crossing guards perform their duties more effectively and safely. The training addresses crossing guard positioning and procedures, state and federal law and regulations, and hands-on practice. The Model Municipal Crossing Guard Policy should be adopted by the Township.

http://www.njcrossingguards.org/

Feedback Signs

The Township should continue to utilize temporary feedback signs along streets with high incidents of speeding and regularly enforce the speed limit along these corridors. These interactive signs draw the motorist's attention to their speed limit and the road's legal speed limit. They can be permanently mounted on signposts or temporarily installed using self-contained trailers. Feedback signs have been proven to slow down traffic.

Police Bike Patrol

The Township should support and encourage police to use bicycles for patrol work. Police on bicycles are excellent role models, especially for children. By patrolling on bicycle, officers understand firsthand the challenges faced by bicyclists and road users and cno easily educate riders and enforce rules about safety. Neighboring Point Pleasant Beach has a bicycle patrol unit.

MAKING IT HAPPEN

CHAPTER 5: MAKING IT HAPPEN

Implementation & Funding

Overview

This section summarizes the efforts required to effectively implement the recommendations in this plan. The proposed bicycle and pedestrian network recommendations identified in the previous section are considered "planning level" and are intended to be used as a guide; further analysis will be required during the design phase. The Toms River Bicycle and Pedestrian Plan provides a starting point to prioritize improvement strategies. It may require updates as the surrounding context changes and as the trade-offs are justified and shared with the community.

The following actions can be undertaken to implement the recommendations of this plan:

- Adopt the plan as a subsection of the Toms River Master Plan Circulation Element
- Develop initial concepts of the recommendations in the plan based on more detailed data collection, analysis, survey, community preference and coordination with Ocean County where neededConsider conducting “pilot” projects / temporary installations to test recommendations and gather community feedback
- Obtain funding for the recommendations

The County should be notified and involved with any facility on County roadways as per the Ocean County Multi-Modal Transportation Policy Guidelines (Appendix 5). The policy describes the guidelines in advancing a segment of bikeway along a County roadway including design criteria, and procedures.

The minimum recommended facility types Table (Figure 26 - Concept Recommendation Summary Table) in Chapter 4 provides an overview of the facility types and level of effort to implement the bicycle and pedestrian network. This table should be utilized in conjunction with the Typical Units Costs Matrix (Appendix 6), which includes an average unit cost for facility types. The matix also identifies typical costs, jurisdictional responsibility and timeline for completion. Bicycle and pedestrian improvements should be coordinated with scheduled road construction and can be part of larger streetscape and roadway improvements. Street resurfacing and restriping projects can be seen as opportunities to stripe on-street bicycle facilities, and crosswalks.

Funding Sources

The following is a general compilation of funding sources that have been, or could be used to fund improvements in Toms River. The list is not exhaustive, but identifies a selection of federal, state, and private/non-profit funding sources pedestrian and bicycle planning, project development, and construction. For each source, links are provided to program websites that contain additional information related to: how to apply for funding, typical grant amounts, application deadlines, and eligible activities. Some funding sources may also be used to fund programmatic activities, related to safety, enforcement, and education. Potential funding sources are listed below and described in *Figure 25 - Potential Funding Sources Matrix* followed by detailed description of each source on subsequent pages

Federal Funding Opportunities

- The Fixing America's Surface Transportation (FAST) ACT
  - » Congestion Mitigation and Air Quality Improvement (CMAQ) Program
  - » Transportation Alternatives Set-Aside
  - » Highway Safety Improvement Program (HSIP)
  - » Safe Routes to School Program (SRTS)

State Funding Opportunities

- NJDOT – Municipal Aid
- NJDOT – County Aid
- NJDOT – Bikeway Grant Program
- New Jersey Transportation Infrastructure Bank
- NJ Division of Highway Traffic Safety Grants (HTS Grants)
  - » Comprehensive Traffic Safety Programs (CTSPs)
  - » Pedestrian Safety
  - » Other Eligible Programs

Private or Non-Profit Funding Sources

- Sustainable Jersey
- Robert Wood Johnson Foundation
- The Geraldine R. Dodge Foundation

Other

- Impact Fees

POTENTIAL FUNDING SOURCES MATRIX

Funding Source	*Types of Facilities or Activities*		
Federal Funding Opportunities	**Capital Projects**		**Programmatic**
	On-Road	*Off-Road*	
The Fixing America's Surface Transportation (FAST) Act			
- Congestion Mitigation and Air Quality Improvement (CMAQ) Program	●		●
- Transportation Alternatives Set-Aside	●	●	●
- Highway Safety Improvement Program (HSIP)	●		●
- Safe Routes to School Program (SRTS)	●	●	●
State Funding Opportunities			
NJDOT – Municipal Aid	●		
NJDOT – County Aid	●		
NJDOT – Bikeway Grant Program	●	●	
New Jersey Transportation Infrastructure Bank	●	●	
NJ Division of Highway Traffic Safety Grants (HTS Grants)			●
Private or NonProfit Funding Sources			
Sustainable Jersey			●
Robert Wood Johnson Foundation			●
The Geraldine R. Dodge Foundation			●
Other			
Impact Fees	●	●	

Note:
1. Capital Projects relate to on- or off-road facility design and construction activities. On/off-road facilities are detailed and described in Appendix A – Design Guidelines. Project elements associated with on-road typically include: striped bicycle lanes, signage, sidewalks, signals, and protected on-road bicycle lanes, etc. Project elements associated with off-road facilities typically include paved paths, signage, road crossings, bridges, boardwalks, wayside exhibits, etc.
2. Programmatic Activities relate to project elements such as technical assistance, education, enforcement, safety, Safe Routes to School, promotion, and marketing.

Figure 25 - Potential Funding Sources Matrix

Federal Funding Opportunities

The FAST Act

On December 4, 2015, President Obama signed the Fixing America's Surface Transportation (FAST) Act (Pub. L. No. 114-94) into law. This was the first federal law in over a decade to provide long-term funding certainty for surface transportation infrastructure planning and investment. The law provides federal transportation policy and funding for five years, authorizing $226.3 billion in Federal funding for fiscal years 2016 through 2020 for road, bridge, bicycling, and walking improvements. (The previous federal program was known as the Moving Ahead for Progress in the 21st Century Act, or "MAP-21"). Funding programs under the FAST Act are summarized below.

www.fhwa.dot.gov/fast act/

- *Congestion Mitigation and Air Quality Improvement (CMAQ) Program*

  The CMAQ program provides a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funds may be used for a transportation project or program such as construction of bicycle and pedestrian facilities that are not exclusively recreational (as they must reduce vehicle trips and therefore vehicle emissions), outreach promoting safe bicycle use, and other bicycle and pedestrian programs. CMAQ eligibilities include public transit, bicycle and pedestrian facilities, travel demand management strategies, alternative fuel vehicles, and facilities serving electric or natural gas-fueled vehicles.

  https://www.fhwa.dot.gov/fastact/factsheets/cmaqfs.cfm

- *Transportation Alternatives Set-Aside*

  The Transportation Alternatives Set-Aside (TA Set-Aside, or TA) authorizes funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, such as historic preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity; recreational trail projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former divided highways. The program will allocate $850 million annually in fiscal years 2018-2020.

  https://www.fhwa.dot.gov/environment/transportation_alternatives/

- *Highway Safety Improvement Program (HSIP)*

  The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned roads and roads on tribal land. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads with a focus on performance.

  https://safety.fhwa.dot.gov/hsip/

- *Safe Routes to School Program (SRTS)*

  The Safe Routes to School Program (SRTS) is a federally funded reimbursement program administered by the New Jersey Department of Transportation (NJDOT), in partnership with the North Jersey Transportation Planning Authority (NJTPA). Under MAP-21 legislation, the Transportation Alternatives Program (TAP) funding does not provide for a standalone Safe Routes to School Program. The New Jersey Department of Transportation (NJDOT) has elected to continue funding the SRTS program separately.

  Infrastructure projects may include the installation of sidewalks, crosswalks, bike lanes, multi-use paths, traffic calming measures, and other means to ensure the ease and safety of children walking

or biking to school. Projects must be located within two miles of a school that serves students in grades K-8 and involve the school commute.

Any municipality, school district, or county is eligible to apply for funding after a solicitation is announced. Non-profit organizations are not eligible as direct grant recipients for the solicitation. However, non-profit organizations may partner with a local public agency that will assume responsibility and administration for the grant.

In 2016, NJDOT announced a pilot program called "Design Assistance." The program assists LPA's, who received funding with development of plans, specifications and estimates for their SRTS projects.

http://www.state.nj.us/transportation/business/localaid/srts.shtm

http://www.njtpa.org/project-programs/project-development/safe-routes-to-school.aspx

State Funding Opportunities

- *NJDOT – Municipal Aid*

  In the Municipal Aid program, funds are appropriated by the Legislature for municipalities in each county based on a formula contained in legislation. Additionally, $10 million is allotted for those municipalities that qualify for Urban Aid. Urban Aid is distributed by a formula that is computed by the New Jersey Department of Community Affairs. Each spring, the New Jersey Department of Transportation (NJDOT) announces the program for that fiscal year and invites municipalities to apply. Road improvement projects such as resurfacing, rehabilitation or reconstruction and signalization are funded and distributed by formula.

  Applications receive points based on various criteria including existing road conditions, Average Daily Traffic (ADT), safety improvements, and access to nodes (schools, residential areas, employment centers, etc.). Other important criteria include the project's readiness to construct, whether the municipality has received an allotment within the last three years, and the municipality's award and close-out performance on previously awarded State grants.

  The State pays 75% of the funds at the time of bid approval and the remainder on a reimbursement basis after acceptance by the municipality and the State of the work completed.

  http://www.state.nj.us/transportation/business/localaid/municaid.shtm

- *NJDOT – County Aid*

  County Aid funds are appropriated by the Legislature annually for the improvement of public roads and bridges under county jurisdiction. Public transportation and other transportation projects are also included.

  Each project must be included the in the County's Annual Transportation Program (ATP). In accordance with the County Aid regulations N.J.A.C. 16:20A, the ATP shall list a pool of eligible projects by name and location, including municipality, with a brief description of each project, project limits and an estimate of the construction cost.

- *NJDOT – Bikeway Grant Program*

  The New Jersey Department of Transportation's (NJDOT) Bikeway Grant 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 (facilities that are physically separated from motorized vehicular traffic by an open space or barrier either within the highway right of way or within an independent right of way). In an effort to establish regionally connected bicycle networks, this program is available to every municipality and county throughout

New Jersey. Although priority will be given to construction of new bike paths, the proposed construction or delineation of any new bicycle facility will be considered.

http://www.state.nj.us/transportation/business/localaid/bikewaysf.shtm

- *New Jersey Transportation Infrastructure Bank*

  The Transportation Bank is a partnership between the NJ Department of Transportation (NJDOT) and th New Jersey Infrastructure Bank (I-Bank). The goal of the Transportation Bank is to provide low interest financing for a variety of capital projects including public highways, approach roadways and other necessary land-side improvements, ramps, signal systems, roadbeds, transit lanes or rights of way, pedestrian walkways and bridges connecting to passenger stations and servicing facilities, bridges, and grade crossings.

  Applications are accepted on a quarterly basis and funding is available to any local government unit (defined as county, municipality, municipal, county or regional transportation authority, or any other political subdivision of the State authorized to construct, operate, and maintain public highways or Transportation Projects) within the state.

NJ Division of Highway Traffic Safety Grants (HTS Grants)

The NJ Division of Highway Traffic Safety offers, on an annual basis, federal grant funding to agencies that wish to undertake programs designed to reduce motor vehicle crashes, injuries, and fatalities on the roads of New Jersey. Municipal, county, state government and law enforcement agencies, as well as non-profit organizations, are encouraged to apply for NJDHTS grant funding to address specific, local traffic safety issues.

Grant funding will only be awarded to programs that are in line with federal and state traffic and safety priorities to reduce car crashes, injuries and deaths.

http://www.nj.gov/oag/hts/grants/index_south.html

The grant funding is distributed under the following programs:

» Comprehensive Traffic Safety Programs (CTSPs)
Comprehensive Traffic Safety Program grants address multiple traffic safety concerns within a county or region. CTSP grants include numerous tasks and strategies involving enforcement, education and engineering.

Any CTSPs for the state of New Jersey fall under the Division of Highway Traffic Safety Grants. The CTSP grants include tasks involving enforcement, education and engineering to improve traffic safety. Other eligible programs for these grants include speeding, bicycle safety, school bus/pupil transportation and traffic engineering.

» Pedestrian Safety
Because the proportion of pedestrian fatalities in New Jersey is 30.2% (well above the national average), pedestrian safety is a continuing priority. The goal of the pedestrian safety program area is to lower the pedestrian fatality and injury crash rates. In New Jersey, municipalities that are statistically high for pedestrian injury crashes are eligible to apply for our Pedestrian Safety Grant. The grant includes funding for overtime enforcement at pedestrian safety hot spots in the community and educational outreach throughout the community.

» Other Eligible Programs
Grant applications may also be submitted that utilize enforcement, education or engineering counter-measures to address other specific traffic safety issues including:

  - Speed
  - Aggressive Driving
  - Bicycling Safety
  - Crash Investigation
  - Distractions
  - EMS Training - relating to crash response
  - Motorcycle Safety

- School Bus/Pupil Transportation
- Traffic Engineering - primarily pedestrian pavement markings and pedestrian signs, but some traffic studies will be considered.

Private or Non-Profit Funding Sources

- *Sustainable Jersey*

  Sustainable Jersey is a nonprofit organization that provides tools, training and financial incentives for sustainable community initiatives. Their statewide certification program helps municipalities take steps to sustain their quality of life over the long term. In 2014, the Sustainable Jersey for Schools certification program was launched for New Jersey public schools interested in going green and conserving resources.

  Participating local governments and schools voluntarily complete and document actions to earn points toward certification. Sustainable Jersey offers small grants ranging from $2,000 to $20,000 to assist communities and schools with completing Sustainable Jersey and Sustainable Jersey for Schools actions. To be eligible for a Sustainable Jersey or Sustainable Jersey for Schools Small Grant, a community or school must be registered or certified with Sustainable Jersey or Sustainable Jersey for Schools and have an active Green Team. The funds can only be used to implement actions that earn points in the Sustainable Jersey or Sustainable Jersey for Schools program.

  Several Sustainable Jersey action items help provide sustainable transportation options. Safe Routes to School, Complete Streets Programs, Bicycle and/or Pedestrian Audits, and Bicycle and/or Pedestrian Plans can be funded. Sustainable Jersey for Schools actions related to active transportation include Pedestrian and Bicycle Safety Promotion Initiatives, Safe Routes to School District Policy, and School Travel Plan for Walking and Bicycling.

  www.sustainablejersey.com/grants-resources/

- *Robert Wood Johnson Foundation*

  The Robert Wood Johnson Foundation (RWJF) invests in grantees (e.g., public agencies, universities, and public charities) that are working to improve the health of all Americans. Current or past projects in the topic area “walking and biking” include greenway plans, trail projects, advocacy initiatives, and policy development.

  New Jersey Health Initiatives (www.njhi.org/) is the statewide grant making program of the Robert Wood Johnson Foundation. New Jersey Health Initiatives supports innovations and drives conversations to build healthier communities through grant making across New Jersey.

  www.rwjf.org/

- *The Geraldine R. Dodge Foundation*

  The Geraldine R. Dodge Foundation provides funding for Arts, Education, Environment and Informed Communities initiatives that are innovative and promote collaboration and community-driven decision making.

  Recipients may include nonprofit, community, government, and business leaders.

  http://www.grdodge.org/what-we-fund/

Other Funding Sources

- *Impact Fees*

  Regulated by subdivision polices, impact fees require residential, industrial and commercial development project leaders to provide sites, improvements, and/or funds to support public amenities such as open space and trails. Impact fees may be allocated to a particular trail or greenway from land development projects if the fund is a dedicates set-aside account established to help develop a county- or township-wide system of trails or pedestrian/bicycle infrastructure facilities.

Endnotes

1 Resolution of the Township Council of the Township of Toms River, County of Ocean, State of New Jersey, recognizing the adoption of a Complete Streets policy (July 24, 2012)

2 https://bbtconnections.com/

3 https://www.app.com/story/news/local/redevelopment/2018/10/30/toms-river-now-owns-nuisance-motel-red-carpet-inn-torn-down/1823795002/

4 Mid-block crossings are typically not permitted on County roads.

5 Mid-block crossings are typically not permitted on County roads.

APPENDICES

APPENDICES:

Appendix 1: Community Outreach

Appendix 2: Community Survey Results

Appendix 3: Resource Inventory

Appendix 4: Environmental Screening: Shared-Use Path Segments

Appendix 5: Ocean County Multi-Modal Policy Guidelines

Appendix 6: Typical Unit Costs Matrix

APPENDIX 1

Outreach

Project Kick-Off Meeting Memorandum

Toms River Bicycle & Pedestrian Plan | NJDOT Local Technical Planning Assistance

TO: Bill Riviere, NJDOT & Toms River Bicycle & Pedestrian Plan Steering Committee
FROM: Rachana Sheth & Mike Dannemiller, NV5
CC: Bettina Zimny and NV5 Staff
SUBJECT: Toms River Bicycle & Pedestrian Plan: PROJECT Steering Committee KICK-OFF MEETING
DATE/TIME: 11/29/2018, 10:00 a.m. - 12:00 noon
LOCATION: Toms River Township: Town Hall, 33 Washington Street, Toms River
ATTENDEES: See Sign-In Records
MEMO DATE: 12/05/2018 (DRAFT)

Overview

NV5 facilitated the Toms River Bicycle and Pedestrian Plan Steering Committee kickoff meeting at the Toms River Town Hall on Thursday 11/29/2018. The meeting was held in the Administrative Conference Room from 10:00am to 12:00 noon. The Township and NV5 established a project Steering Committee list. A total of 18 participants were at the meeting. See attached sign-in sheet.

STEERING COMMITTEE MEMBERS (in attendance)	
Alizar Zorojew	Business Improvement District
Jared Tate	Township Parks & Recreation
Laurie Huryk	Township Council Member
Mark Jehnke	Ocean County Engineering Dept.
Maurice Hill	Township Council Member
Robert Chankalian	Township Engineer
Steve Schwartz	Township Police Department
Victoria Pecchioli	Ocean County Dept. of Planning
Jerry Foster	Greater Mercer TMA
John Ernst	Ocean County Dept. of Engineering
Cassie Shugart	Ocean County Dept. of Planning
Erika Stahl	Toms River Township
Wendy Birkhead	Toms River Township
PROJECT TEAM MEMBERS (in attendance)	
Bill Riviere	NJDOT, Office of Bicycle and Pedestrian Programs
Dave Roberts	Township Planner, Project Manager
Rachana Sheth	NV5, Project Manager
Mike Dannemiller	NV5, Principal Engineer
Nicole Pace-Addeo	Stokes Creative Group

Purpose

The purpose of the meeting was to introduce NJDOT's Local Technical Planning Assistance (LTA) Program; review the project scope, schedule & outcomes; and begin identifying destinations, barriers, and priorities.

Meeting Summary

Introductions

Bill Riviere, NJDOT provided an overview of the Local Technical Assistance program at NJDOT, and clarified the roles and responsibilities of the NV5 staff and the municipal stakeholders. He explained that the goal is to create a plan that can be advanced by the Township and not sit on a shelf.

Project Overview

Scope of Work

Rachana Sheth, NV5 described the overall project scope of work and schedule. The project goal is to refine the Township's vision for bicycle and pedestrian travel throughout Toms River and prioritize safety enhancements needed to achieve the vision. The plan objectives are to:

- Develop and build consensus for a Community Vision for bicycling and walking in Toms River
- Evaluate the Township's bicycle and pedestrian network by identifying needs and opportunities focusing on access to key destinations, the town center and the developing River Walk Trail
- Identify a Priority Bicycle and Pedestrian Network, including both on- and off-road opportunities
- Develop typical improvement Concepts, focused on major linkages to the town center and developing River Walk Trail.

This plan aims to support Toms River Township in advancing transportation safety, especially for non-motorized users, and prepare the township and/or the county to potentially solicit funding for larger scale projects.

Tools in the Toolbox

Mike Dannemiller, NV5 provided an overview of bicycle and pedestrian facilities and discussed the methodology to develop an enhanced multimodal network. He described some of the work done earlier and presented some sample network maps, concepts, and implementation matrices.

Public Outreach

Nicole Pace, Stokes Creative Group, presented the draft project logo and provided an overview of the online tools (project website, Wikimapping site, and survey) that will be utilized for this plan. She presented sample websites and other materials. Rachana Sheth, NV5 provided an overview of the meetings and workshops planned and solicited feedback on potential dates, events, and venues for marketing the plan. The two visioning workshops are tentatively scheduled for late January/early February. She explained that these are typically an "Open House" format

which allows participants to come and go as may be convenient for them.

Action Items/Next Steps

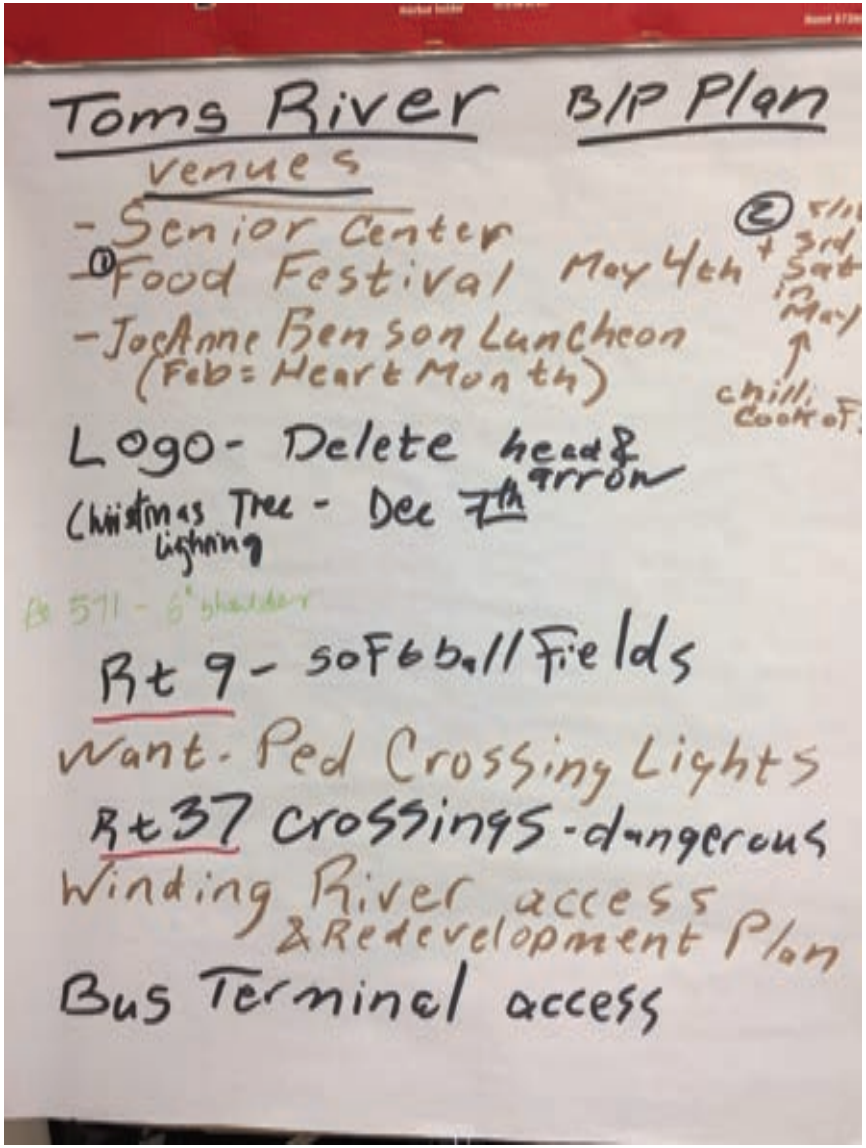
1. Toms River will secure a venue for the two open house meetings, anticipated to be held in either area high school gymnasiums or Senior Centers. NV5 will help coordinate and finalize dates for the two meetings.
2. NV5 Staff will conduct data collection, analysis and field work over the next several weeks.
3. NV5 and Stokes to finalize project logo without the Indian head and arrow.
4. Participants will share materials including GIS data, Road Safety Audit and other reports. NV5 will send an invitation to Steering Committee for the project BaseCamp site for sharing large digital files
5. The Steering Committee will be asked to review the draft survey prior to it being circulated to the public.
6. NV5 will transfer the mapping exercise comments to the project Wikimapping site.
7. NV5 will send a digital copy of the questionnaire for additional input.

Mapping Exercise, Discussion & Questionnaire Summary

The Steering Committee identified major destinations, preferred routes and perceived barriers and areas in need of improvement on a Toms River map. A copy of the marked up map is attached.

Comments

- Biking and walking connections to Winding River Park are high priority
- Ocean County has a policy to provide 5 foot shoulders along any road where they fit. 11 foot lanes are the new typical for county road striping. Curbs and sidewalks are part of the municipal responsibility, the County's role is perceived to be limited to the curb to curb width of the road only.
- Route 571, Route 9, Route 37 are difficult to cross and travel on.
- Access to softball complex located on North Bay Avenue near Whitty Road should be improved especially at the Old Freehold Road and North Bay Avenue intersection. One recommendation is to install pedestrian crossing lights.
- Bicycle and Pedestrian connections to shopping centers and bus stops in Downtown and along Route 166, Route 571, Route 9, Route 70 should be improved.
- Develop connections to and from the residential areas that are essentially isolated due to high speed and volume roads.
- On street parking along Washington Street was questioned, and should be considered to be removed.
- Redevelopment plans will be shared, and include details about several project:
    - Waterfront area – continues the Barnegat Branch Trail
    - "Jakes Branch" and CONRAIL extension and site cleanup area, is expected to be owned by NJ Natural Gas
    - And the remainder of the downtown area including Water Street and Court Street are a focus area
    - The 2011 Downtown Toms River Bicycle Pedestrian Study Report by Ocean County & NJTPA should be a priority source of information
    - Speed limits throughout Toms River should be evaluated, and consider a global reduction, similar to Montclair or New York City (Dayton to Saint Joseph's is a good example of the street that would benefit from lower travel speeds)
    - A road safety audit was recently conducted on Water Street between The Garden State Parkway and Dock Street. The Township will share a copy of that report.
- People want a more vibrant and connected community
- 13 year olds should be able to bike safely on their own around town
- Finding a way to get drivers to be less aggressive is a top priority
- Potential locations for the public open house meetings can be held in either area high school gymnasiums (HS north & HS East) or the Senior Center. Toms River will investigate availability.
- Events to consider attending include food festivals in May, Joanne Benson Luncheon (Senior Center Director), etc.
- Advertisement of the public meetings should include Toms River Patch, distributing flyers in elementary student school backpacks, and consider direct outreach to the Seniors during daytime hours. The Business Improvement District has a positive track record of social media outreach, and can assist in advertising events and project resources (Wikimap and survey). Dog walking has also proven to be or great interest and can drive participation.


Toms River B/P Plan
venues
- Senior Center
- Food Festival May 4th
- JoAnne Benson Luncheon
(Feb = Heart Month)
Logo - Delete head & arrow
Christmas Tree - Dec 7th
lighting
Rt 9 - 50 Fball Fields
want - Ped Crossing Lights
Rt 37 crossings - dangerous
Winding River access
& Redevelopment Plan
Bus Terminal access


Grocery Store
Ped Fatalities
Ice Rink
"un walkable" w/ its Bus Stops!
Train
Shopping
Bus Terminal
Consider Sidepath
Sidewalk
Senior Center
Downtown Map
TOMS RIVER BICYCLE & PEDESTRIAN PLAN
NJDOT Local Technical Planning Assistance
Map 1
DESTINATIONS
LEGEND
Barnegat Branch Trail
Constructed
Future
Streams
Schools
Private
Public
NJDOT Show Tour
Historic Properties
Miles

Map Mark-Up Summary

- Destinations / Community Assets
    - Wawa at Route 9 and Route 70 intersection
    - Commercial areas:
        - Along Route 9
        - Along Route 166
        - Route 70 & Route 527 Intersection
        - Route 549 near Bay Avenue
        - Intersection of Route 166 and Old Freehold Road
        - Intersection of Route 9 and Route 37/Route 66
    - EMS on Route 70
    - Ocean County College
    - Senior Center on Garfield Avenue
    - Schools
    - Parks - Cattus Island Park, Shelter Cover Park, Money Island beach, Garfield Park,
    - Connections to downtown
    - Ice rink Winding River Park
- Barriers/Issues
    - Pedestrian fatalities on Route 70
    - Winding River Park paths - missing links to be created and path needs to be improved. Currently it is not appropraite for bikes throughout the park. Only section from Route 37 to the ice rink is appropriate for bicyclists. There are DEP permitting issues with developing those trails.
    - Area to the west of Route 571 and near Winding River Park is cutoff from the Township
    - Areas to the west of Route 9 are disconnected from the areas on both sides of the GSP / Freehold Road.
    - Route 571
    - Route 571 between Route 579 and the Township border is dangerous to walk or bike on
    - Route 166 between Route 571 and James Street has bus stops and is dangerous to walk on
    - Access to Winding River Park for the Toms River MUA is needed
    - Whittier Avenue is a dangerous road that needs improvement
- Preferred Routes
    - Route 527
    - Local streets near Clayton Avenue and Weatherly Park
    - Winding River Park paths
    - Railroad ROW
    - Washington Street in downtown
    - Walnut Street
    - James Street
    - Bus Terminal Access
    - Consider sidepaths along Huddy Park
    - Route 166 near the downtown and to Barnegat Branch Trail

Attachments

1. Sign-In Sheet
2. Agenda
3. Wikimap/Basecamp Overview
4. Questionnaire
5. Mapping Exercise
6. Destinations Map
7. Questionnaire Responses

Meeting Photos





Sign-In Sheet

STEERING COMMITTEE KICK-OFF MEETING

Thursday, November 29, 2018

SIGN-IN SHEET

Name	Organization	Title	Email	Phone	Address	Signature
[illegible]	Council Member	Ward 3	[illegible]	[illegible]	[illegible]	
[illegible]	Police Department	Director	lamoruso@tomsrivertownship.com	[illegible]	[illegible]	
[illegible]	Board of Education	Asst. Superintendent	[illegible]	732-505-5500	[illegible]	
[illegible]	Ocean County Engineering Dept.	Assistant County Engineer TRAFFIC	[illegible]	[illegible]	[illegible]	
[illegible]	Toms River Township	Council	mohillusnr@comcast.net	732-341-1000	33 Washington St Toms River, NJ	
[illegible]	[illegible]	Supervising Engineer	michael.dannemiller@nv5.com	[illegible]	[illegible]	MD
Rachana Sheth	NV5	Urban Designer /Project Manager	rachana.sheth@nv5.com	[illegible]	[illegible]	
Robert Chanklian	Toms River Township	Township Engineer	rchanklian@tomsrivertownship.com	[illegible]	[illegible]	
Robyn Trout	Bicycle/Pedestrian Advocacy Groups	Beachwood Bicycles	info@beachwoodbikes.com	[illegible]	[illegible]	
Steve Schwartz	Police Department	Public Safety Officer	SSchwartz@trpolice.org	732-349-0150 x 1293	[illegible]	

TomsRiver_SignInSheet_KickOff.xlsx

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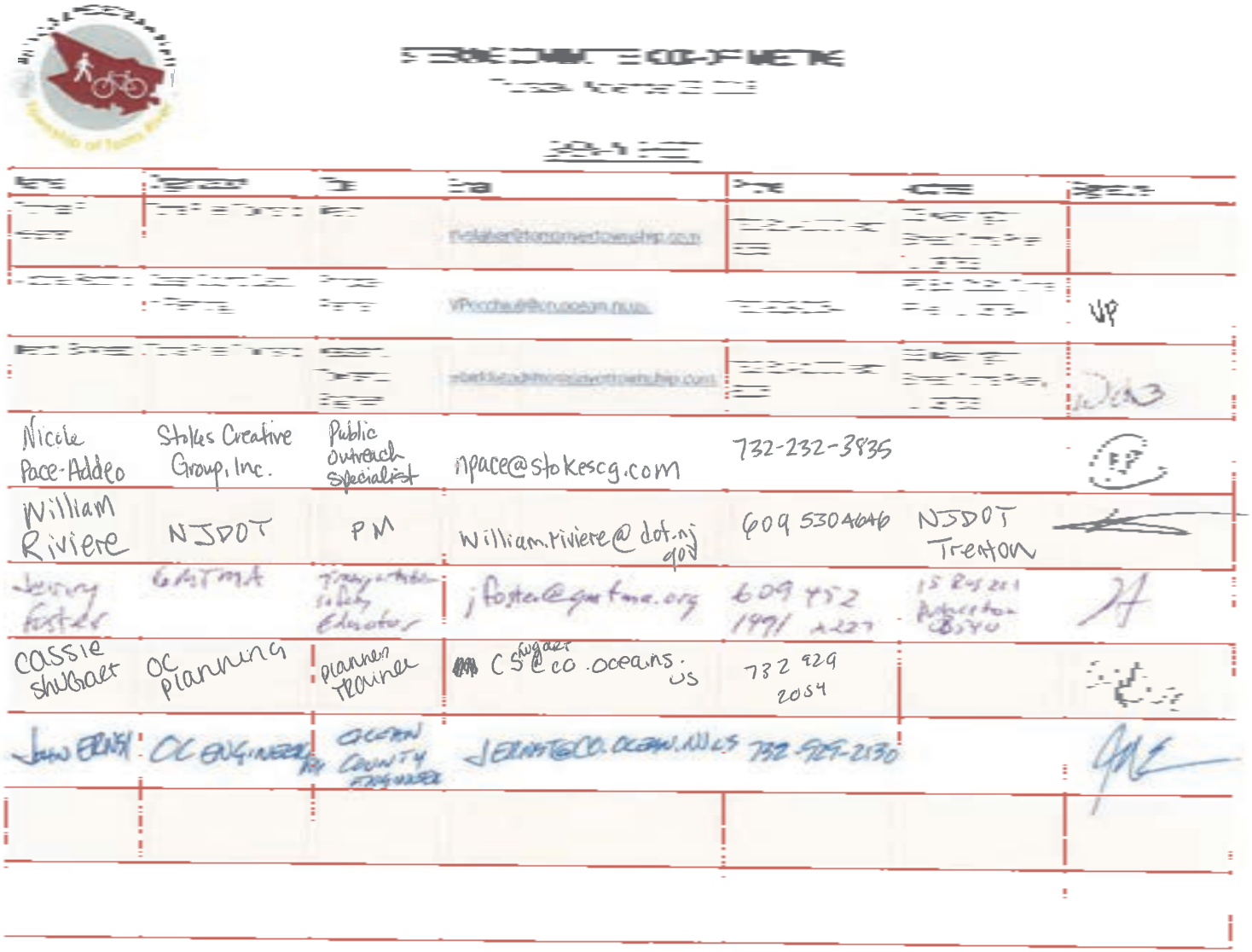


Nicole Pace-Addeo	Stokes Creative Group, Inc.	Public outreach specialist	npace@stokescg.com	732-232-3835		
William Riviere	NJDOT	PM	William.Riviere@dot.nj.gov	609 530 4646	NJDOT Trenton	
Jenny Foster	GMTMA		jfoster@gmtma.org	609 452 1991 x227		
Cassie Shubert	OC Planning	planner trainer	CShubert@co.ocean.us	732 929 2054		
	OC Engineer	Ocean County Engineer		732-929-2130		

TomsRiver_SignInSheet_KickOff.xlsx

STEERING COMMITTEE KICK-OFF MEETING

Thursday, November 29, 2018

SIGN-IN SHEET

Name	Organization	Title	Email	Phone	Address	Signature
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Bill [illegible]	[illegible]	[illegible]	William.Riviere@dot.nj.gov	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	jovannis4@aol.com	[illegible]	[illegible]	
Donald Guardian	Toms River Township	Administrator	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
George [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Jerry Foster	Greater Mercer TMA		foster@gmtma.org	[illegible]	[illegible]	
Kevin Esposito	Fire Department	Fire Chief	esposito@trfire.org	[illegible]	[illegible]	

TomsRiver_SignInSheet_KickOff.xlsx

Agenda

AGENDA
STEERING COMMITTEE KICK-OFF MEETING

Thursday, November 29, 2018
10:00am – 12:00pm

Toms River Town Hall
Administrative Conference Room
33 Washington Street

Purpose: To introduce NJDOT's Local Technical Planning Assistance (LTA) Program; review the project scope, schedule & outcomes; and begin identifying destinations, barriers, and priorities.

I. Welcome & Introductions ..... *Bill Riviere, NJDOT*
   a. Project Team and Steering Committee Introductions
   b. Role of Steering Committee

II. Project Overview
   a. Scope of Work, Schedule and Outcomes ..... *Rachana Sheth, NV5*
   b. Tools in the Toolbox..... *Mike Dannemiller, RBA*
   c. Public Outreach ..... *Nicole Pace, Stokes Creative Group*

III. Mapping Exercise

IV. Next Steps ..... *Rachana Sheth, NV5*
   a. Data Collection and Needs Assessment
   b. Visioning Workshops

Wikimapping / Basecamp Overview

WikiMapping
A WikiMap is an interactive online mapping tool used to gather information from residents and others about the places you go, the routes you take and the barriers and opportunities along the way.

Basecamp
"Basecamp" is a user-friendly web-based project management software application that allows all members of the team to share technical information, keep informed of upcoming milestones/ deadlines, and collaborate from kick-off to final report.

Mapping Exercise

STEERING COMMITTEE KICK-OFF MEETING
Thursday, November 29, 2018

MAPPING EXERCISE
Mark-up the maps according to the colors described below.

BLUE = Destinations and Community Assets
- Places you like to walk or bike to
- Places you would like to walk or bike to but currently can't
- Areas of high bicycle and pedestrian activity

GREEN = Preferred Routes
- Routes you enjoy bicycling and walking
- Important streets for walking and bicycling
- Existing bicycle and pedestrian facilities (bike racks, enhanced crossings)

RED = Barriers and Areas in Need of Improvement
- Improvement needed (i.e. missing sidewalks, speeding motorists, bike parking needed)
- Difficult intersections/crossings
- Connections needed

Questionnaire

QUESTIONNAIRE
STEERING COMMITTEE KICK-OFF MEETING
Thursday, November 29, 2018

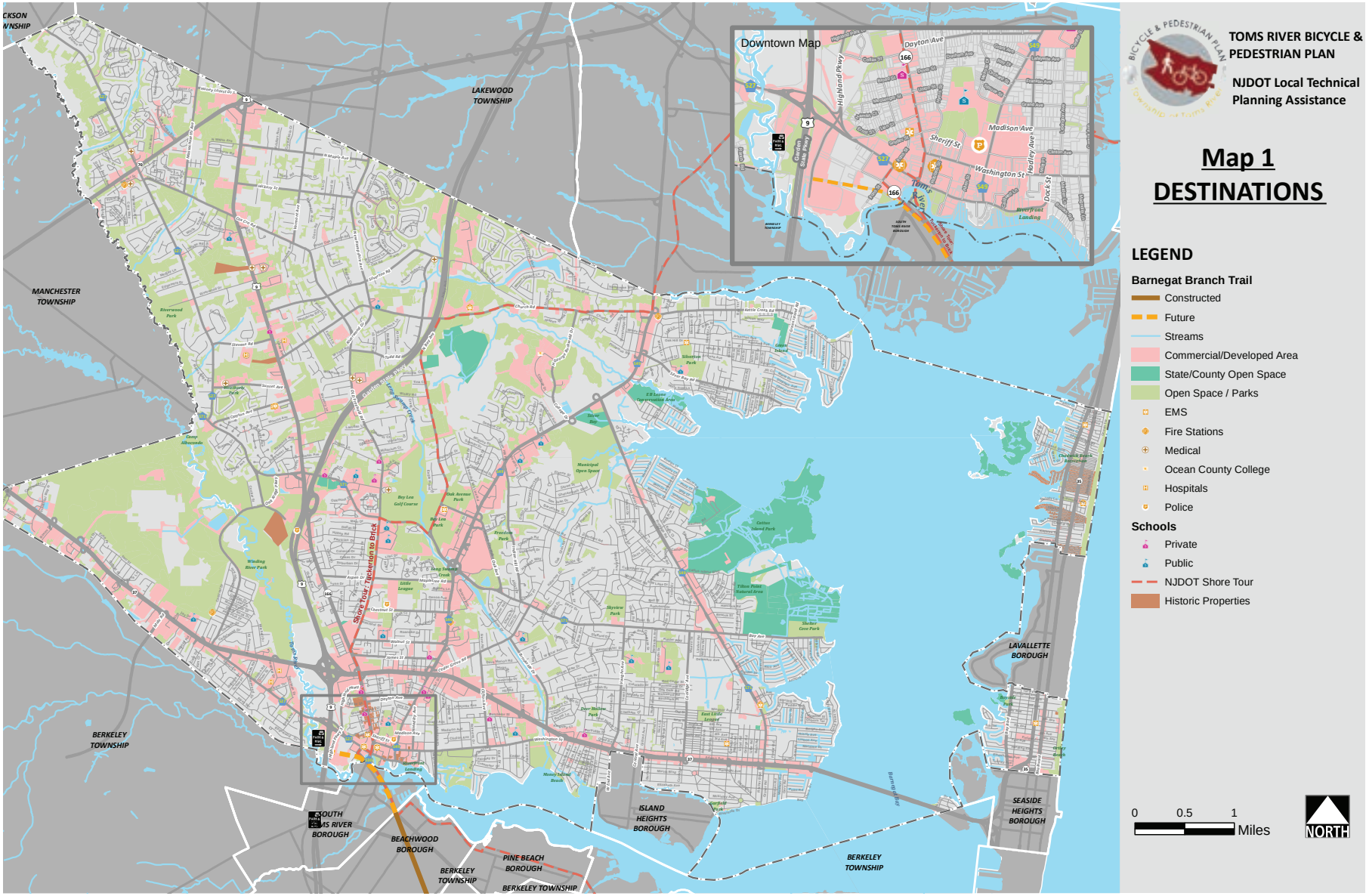
1. How do you rate the overall **walking** conditions in Toms River?
   - ☐ Excellent
   - ☐ Good
   - ☐ Fair
   - ☐ Poor

   Why? _____
2. How do you rate the overall **bicycling** conditions in Toms River?
   - ☐ Excellent
   - ☐ Good
   - ☐ Fair
   - ☐ Poor

   Why? _____
3. What do you think are the **top three** things the Bicycle and Pedestrian Plan needs to address? _____
4. Can you give an example of a place (local or national) where you **enjoy walking or bicycling**? Why? _____
5. What **information** – plans, studies, data, mapping, etc, - should the project team be familiar with to advance the project? (Please provide digital copies, if available) _____

Please submit this questionnaire at the end of the meeting or by email to Rachana.Sheth@nv5.com.

Destinations Map



Questionnaire Responses

QUESTIONNAIRE
Steering Committee Kick-Off Meeting
Thursday, November 29, 2018

1. How do you rate the overall **walking** conditions in Toms River?
   - ☐ Excellent
   - ☐ Good
   - ☐ Fair
   - ☒ Poor

   Why? main reasons are heavy volumes of traffic that divide the Town (Rt 9, Rt 37, Hooper Ave, Whitesville Road, New Hampshire Ave and Old Freehold Road)

2. How do you rate the overall **bicycling** conditions in Toms River?
   - ☐ Excellent
   - ☐ Good
   - ☒ Fair
   - ☐ Poor

   Why? see above

3. What do you think are the **top three** things the Bicycle and Pedestrian Plan needs to address?
   ① safe pedestrian crossing areas on the above mentioned roads
   ② connection of Downtown to Winding River and Riverwood Park
   ③ safe bike lanes on our secondary roads

4. Can you give an example of a place (local or national) where you **enjoy walking or bicycling**? Why?
   Beachfront area and Winding River

5. What **information** – plans, studies, data, mapping, etc. - should the project team be familiar with to advance the project? (Please provide digital copies, if available)
   Downtown redevelopment Area

Please submit this questionnaire at the end of the meeting or by email to Rachana.Sheth@nv5.com.

QUESTIONNAIRE
Steering Committee Kick-Off Meeting
Thursday, November 29, 2018

1. How do you rate the overall **walking** conditions in Toms River?
   - Excellent
   - Good
   - ☒ Fair
   - Poor

   Why? [illegible]

2. How do you rate the overall **bicycling** conditions in Toms River?
   - Excellent
   - Good
   - ☒ Fair
   - Poor

   Why? [illegible] neighborhoods [illegible]

3. What do you think are the **top three** things the Bicycle and Pedestrian Plan needs to address?
   [illegible]

4. Can you give an example of a place (local or national) where you **enjoy walking or bicycling**? Why?
   Cape May
   [illegible]

5. What **information** – plans, studies, data, mapping, etc. - should the project team be familiar with to advance the project? (Please provide digital copies, if available)
   Downtown Redevelopment Plan, [illegible]

Please submit this questionnaire at the end of the meeting or by email to [illegible]

QUESTIONNAIRE
Steering Committee Kick-Off Meeting
Thursday, November 19, 2015

1. How do you rate the overall walking condition in Toms River?
   - Excellent
   - Good
   - Fair
   - Poor

   Why?

2. How do you rate the overall bicycling condition in Toms River?
   - Excellent
   - Good
   - Fair
   - Poor

   Why?

3. What do you think are the top three things the Bicycle and Pedestrian Plan needs to address?

4. Can you give an example of a place (local or national) where you enjoy walking or bicycling? Why?

5. What information (plans, studies, data, mapping, etc.) should the project team be familiar with to advance the project? Please provide digital copies if available.

Please submit this questionnaire at the end of the meeting or by email to

QUESTIONNAIRE
Steering Committee Kick-Off Meeting
Thursday, November 19, 2015

1. How do you rate the overall walking condition in Toms River?
   - Excellent
   - Good
   - Fair
   - Poor

   Why?

2. How do you rate the overall bicycling condition in Toms River?
   - Excellent
   - Good
   - Fair
   - Poor

   Why?

3. What do you think are the top three things the Bicycle and Pedestrian Plan needs to address?

4. Can you give an example of a place (local or national) where you enjoy walking or bicycling? Why?

   Charleston, SC
   Denver, CO
   New Orleans, Louisiana

5. What information (plans, studies, data, mapping, etc.) should the project team be familiar with to advance the project? Please provide digital copies if available.

Please submit this questionnaire at the end of the meeting or by email to

QUESTIONNAIRE
Steering Committee Kick-Off Meeting
Thursday, November 29, 2018

1. How do you rate the overall walking conditions in Toms River?
   - Excellent
   - Good
   - Fair
   - ☒ Poor

   Why? limited to none sidewalks along main roads. Road crossings are not pedestrian friendly

2. How do you rate the overall bicycling conditions in Toms River?
   - Excellent
   - Good
   - Fair
   - ☒ Poor

   Why? The roads are narrow, heavy traffic and shoulders are dirty or no existent

3. What do you think are the top three things the Bicycle and Pedestrian Plan needs to address?
   safety
   connectivity
   coordination with existent public entities

4. Can you give an example of a place, local or national, where you enjoy walking or bicycling? Why?
   Bergen County - Pedestrian, plenty of sidewalks on main roads.
   Boston Suburbs, bike lanes & sidewalks & safe pedestrian crossings

5. What information (plans, studies, data, mapping, etc.) should the project team be familiar with to advance the project? (Please provide digital copies, if available)
   [illegible]

Please submit this questionnaire at the end of the meeting or by email to [illegible]

QUESTIONNAIRE
Steering Committee Kick-Off Meeting
Thursday, November 29, 2018

1. How do you rate the overall walking conditions in Toms River?
   - Excellent
   - Good
   - Fair
   - Poor

   Why? Suburban development pattern - car oriented, wide arterials create barriers

2. How do you rate the overall bicycling conditions in Toms River?
   - Excellent
   - Good
   - Fair
   - ☒ Poor

   Why? same

3. What do you think are the top three things the Bicycle and Pedestrian Plan needs to address?
   Crossing arterials & highways
   Actual facilities (Class I) for biking & walking
   connecting schools & parks

4. Can you give an example of a place, local or national, where you enjoy walking or bicycling? Why?
   Barnegat Branch Trail

5. What information (plans, studies, data, mapping, etc.) should the project team be familiar with to advance the project? (Please provide digital copies, if available)
   Barnegat Branch Trail extension from south into TR

Please submit this questionnaire at the end of the meeting or by email to [illegible]

APPENDIX 5: Outreach

DRAFT

MEMORANDUM

To:	Bill Riviere, NJDOT	**Date:**	4/22/2019
From:	Rachana Sheth & Mike Dannemiller	**Project:**	Toms River LTA NV5# 0000095.17
CC:	Bettina Zimny		
Subject:	Steering Committee – Network Review Meeting 4/11/2019		

NV5 facilitated the Toms River Bicycle and Pedestrian Plan Steering Committee Network Review meeting at the Toms River Town Hall on Thursday 4/11/2019. The meeting was held in the Administrative Conference Room from 1:00 – 3:00 pm. A total of 12 steering committee members were at the meeting. See attached sign-in sheet.

Purpose

The purpose of the meeting was to review the preliminary bicycle and pedestrian facility network with the Steering Committee, make any necessary revisions and begin to identify priorities for a phased implementation plan. Refined network mapping and typical concepts will be the basis for the Public Information Center tentatively scheduled for 5/4/2019 during the Toms River Food Fest.

Meeting Summary

Bill Riviere and David Roberts welcomed the Steering Committee and reviewed the overall scope and schedule of the NJDOT Technical Assistance to Toms River. Rachana Sheth detailed the data collection, public participation and network development efforts conducted to date. Mike Dannemiller described the overall network that focused on connecting Winding River Trail, Downtown, Cattus Island and the waterfront to destinations throughout Toms River Twp including schools, parks, commercial areas, senior center, OC College and residential areas.

Network Overview

NV5 presented a draft network of bicycle and pedestrian facilities that can be implemented over time through a range of on-road and off-road corridor enhancements. The network was presented to the Steering Committee as a series of broad loops, and other connecting segments. The following network loops were identified:

- Downtown Loop (includes a downtown grid)
- Loop 1 – Bey Lea - Money Island Beach
- Loop 2 – Whitty Road – OC College
- Loop 3 – Winding River Park - Cattus Island Park
- Loop 4 – Northern Tier
- Connectors

7 Campus Drive, Suite 300 | Parsippany, NJ 07054 | www.NV5.com | Office 973.946.5600 | Fax 973.984.5421

DRAFT

Action Items/Next Steps

I. Network revisions based on the feedback received at the meeting are:
   1) Add Clayton Avenue to the network to provide a direct connection from Winding River Trail / Boy Scouts property and utilize new traffic signal installed recently along Route 9, NV5 to determine facility type along Clayton Avenue
   2) Utility ROW:
      i. Delete segment parallel to existing Winding River Trail
      ii. Broaden recommended corridor options south of Route 37 to include both Winding River Trail and Utility corridor as one alignment alternative
   3) Hooper Avenue (downtown):
      i. Remove segment north of the courthouse
      ii. Prioritize pedestrian circulation and accommodation south of Washington Street
   4) Add Bicycle Boulevard as a north-south connection, consider Coolidge Avenue and various local road parallel and east of Vaughn Avenue (this will be in addition to the longer term options on Vaugh Avenue and Garfield Avenue corridors
   5) Add kayak launch points (Huddy Park, Money Island, Garfield along Toms River, and Dockside to the north (Silver Bay?)
   6) Cattus Island Trail
      i. Recommend continuous hiking facility
      ii. To be verified with County Parks Department, County will provide contact information
   7) Hooper Avenue & Church Road:
      i. Short term: add parallel roads between Church Road and Silver Bay Road
      ii. Long Term: widen sidewalk to side path, and construct continuous facility
II. Ocean County will provide GIS data for OCC roadways
III. Ocean County to provide level of stress data developed by NJTPA. This data could potentially help in refining the network.
IV. Ocean County / Toms River Twp Engineering will provide AADT data for the identified network roadways. NV5 will provide a matrix of data compiled to-date on the network roadways from the straight line diagrams and desktop data collection.
V. Toms River Twp Engineering to review the draft bicycle and pedestrian network utilizing the Google Earth KMZ files provided by NV5
VI. NV5 to overlay wetlands data on the preliminary network to identify initial problem areas. Please note: a detailed environmental analysis is not included in this phase of the project.
VII. Steering Committee to review Vision and Goals statement and provide comments by 4/29/2019
VIII. Public Information Center:

APPENDIX 5: Outreach

1) Confirm logistics for the Toms River Food Festival, table location and materials,
2) Review plan to solicit feedback using revised network map, typical facility/ background boards, and public survey element

IX. Optional: NV5 to consider presenting the final network/plan to the Planning Board to garner support and consensus (not included in the current scope of work).

Attachments

1. Sign-in Sheet
2. Agenda
3. Meeting materials
4. Network revisions

The revisions to the network recommended by the Steering Committee are marked up on the map included below (also in attachments):

DRAFT

Photos

APPENDIX 5: Outreach

STEERING COMMITTEE NETWORK REVIEW MEETING

Thursday, April 11, 2019

SIGN-IN SHEET

Name	Organization	Title	Email	Phone	Address	Signature
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Bill Riviere	[illegible]	[illegible]	William.Riviere@dot.nj.gov	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	✓
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Jerry Foster	Greater Mercer TMA		[illegible]	[illegible]	[illegible]	
Kevin Esposito	Fire Department	Fire Chief	[illegible]	[illegible]	[illegible]	

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APPENDIX 5: Outreach

STEERING COMMITTEE NETWORK REVIEW MEETING

Thursday, April 11, 2019

SIGN-IN SHEET

Name	Organization	Title	Email	Phone	Address	Signature
Laurie Huryk	Council Member	Ward 3	lhuryk@tomsrivertownship.com	732-341-1000, ext. 8242	33 Washington Street, Toms River, NJ 08753	[signature]
Louis Amoruso	Public Works Department	Director	lamoruso@tomsrivertownship.com	732-341-1000, ext. 8108	1672 Church Road, Toms River, NJ 08753	[signature]
Marc Natanagara	Board of Education	Asst. Superintendent	mnatanagara@trschools.com	732-505-5500	1144 Hooper Avenue, Toms River, NJ 08753	
Mark Jehnke	Ocean County Engineering Dept.	Assistant County Engineer	MJehnke@co.ocean.nj.us	732-929-2130	129 Hooper Ave., CN2191 Toms River, NJ 08754	[signature]
Maurice Hill	Toms River Township	Council	mohillusnr@comcast.net			
Mike Dannemiller	NV5	Supervising Engineer	michael.dannemiller@nv5.com	973-946-5626	1 Campus Drive, Suite 300, Parsippany, NJ 07054	✓
Rachana Sheth	NV5	Urban Designer (Project Manager)	rachana.sheth@nv5.com	973-946-5685	1 Campus Drive, Suite 300, Parsippany, NJ 07054	✓
Robert Chankalian	Toms River Township	Township Engineer	rchankalian@tomsrivertownship.com	732-341-1000, ext. 8259	33 Washington Street, Toms River, NJ 08753	[signature]
Robyn Trout	Bicycle / Pedestrian Advocacy Groups	Beachwood Bicycles	[illegible]@beachwoodbikes.com	732-349-2333	501 Atlantic City Blvd, Beachwood, NJ 08722	
Steve Schwartz	Police Department	Public Safety Officer	SSchwartz@trpolice.org	732-349-0150 ext. 1293	255 Oak Avenue, Toms River, NJ 08753	[signature]

TomsRiver_SCMtg2_SignInSheet_41019.xlsx 2/4

APPENDIX 5: Outreach

STEERING COMMITTEE NETWORK REVIEW MEETING
Thursday, April 11, 2019

SIGN-IN SHEET

Name	Organization	Title	Email	Phone	Address	Signature
Thomas F. Kelaher	Toms River Township	Mayor	[illegible]	732-314-1000, extn. 8255	33 Washington Street, Toms River, NJ 08753	
Victoria Pecchioli	Ocean County Dept. of Planning	Principal Planner	[illegible]	732-929-2054	PO Box 2191, Toms River, NJ 08754	[signature]
Wendy Birkhead	Toms River Township	Assistant Township Engineer	[illegible]	732-314-1000, extn. [illegible]	33 Washington Street, Toms River, NJ 08753	[signature]
[illegible]						[signature]

TomsRiver_SCMtg2_SignInSheet_41019.xlsx

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APPENDIX 5: Outreach

AGENDA

STEERING COMMITTEE NETWORK REVIEW MEETING

Thursday, April 11, 2019
1:00pm – 3:00pm

Toms River Town Hall
Administrative Conference Room
33 Washington Street

Purpose: To review the draft priority bicycle and pedestrian network, project scope, schedule & progress to date, and discuss next steps.

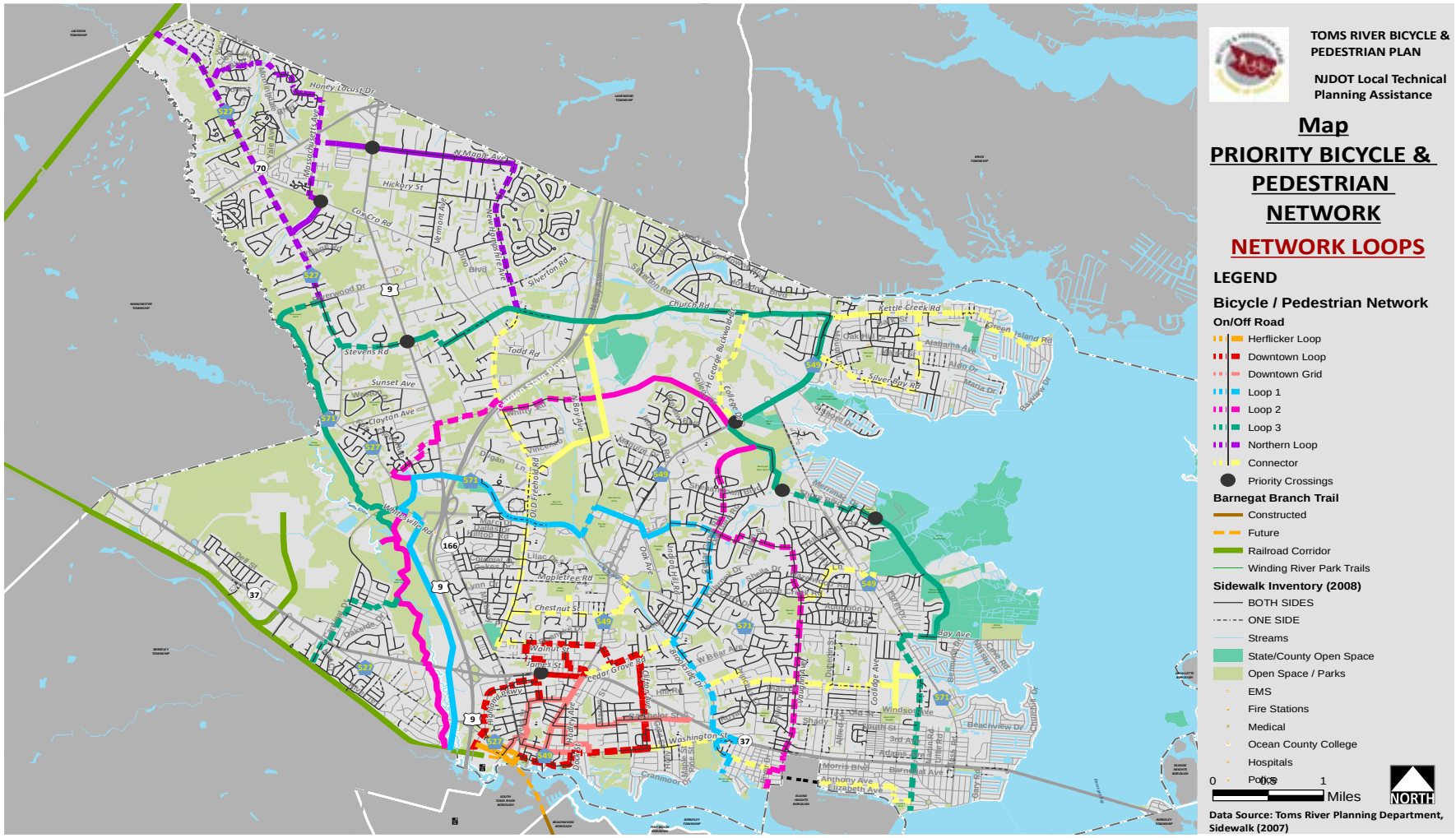
I. Introductions .....*Bill Riviere, NJDOT / Dave Roberts, Toms River Twp*

II. Scope, Schedule & Progress to date..... *Rachana Sheth, NV5*

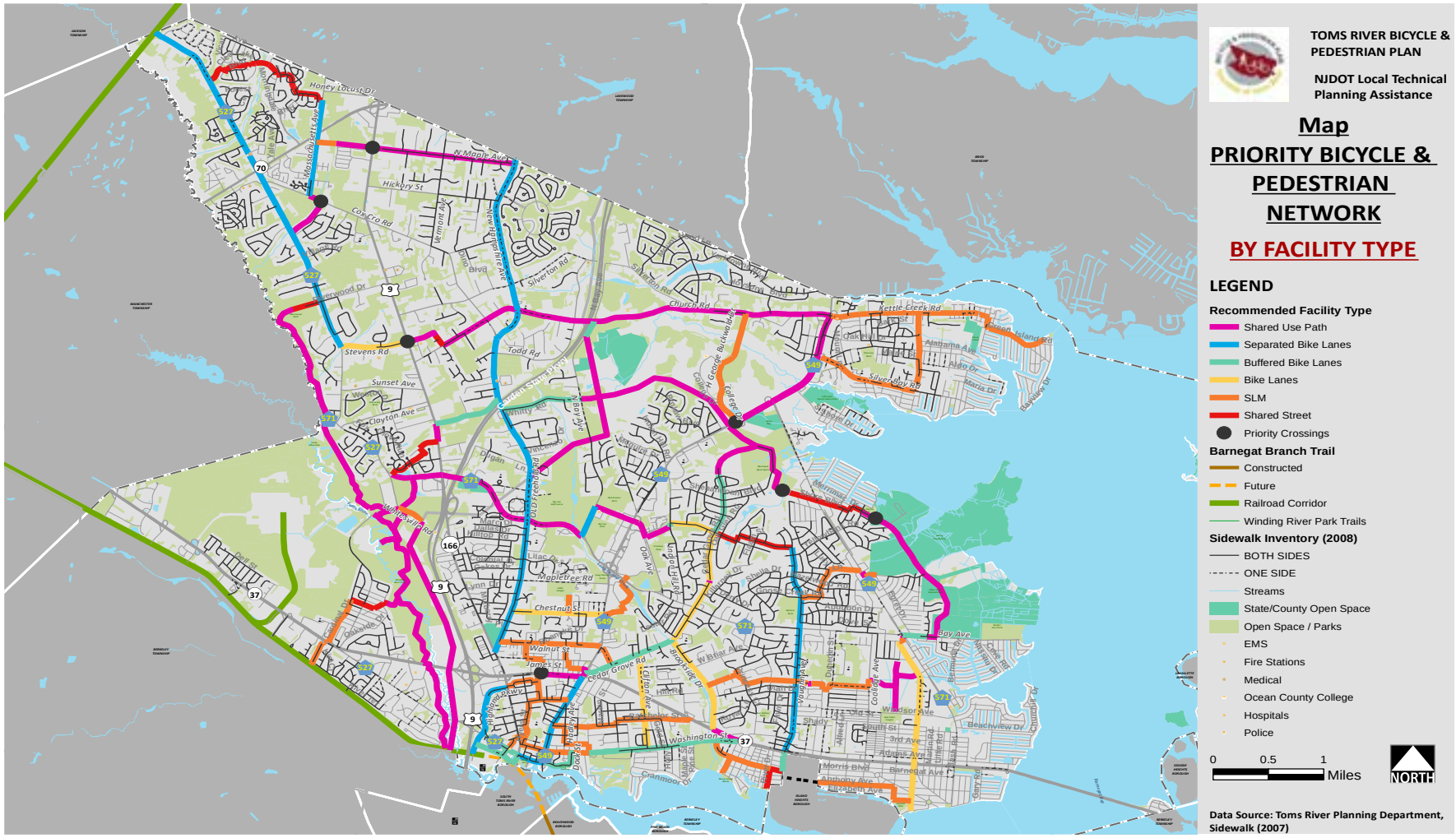
III. Priority Bicycle & Pedestrian Network
- *a.* Network development/ Overview .....*Rachana Sheth, NV5*
- *b.* Network review & discussion .....*Mike Dannemiller, NV5*

IV. Next Steps ..... *Rachana Sheth, NV5*
- a. Implementation Matrix
- b. Public Information Center

APPENDIX 5: Outreach



APPENDIX 5: Outreach



APPENDIX 5: Outreach

4/8/2019

Toms River Bicycle Pedestrian Plan
Preliminary Bicycle Pedestrian Network

Network	Cross Street	Cross Street	Facility Type
Downtown Loop			
Highland Parkway	BBT	W Gateway	Separated Bike Lanes
W Gateway/S Gateway	Main Street	Kings Street	SLM
Kings Street	S Gateway	Route 37	SLM
Route 37	Kings Street	Hooper Avenue	Shared Use Path w/ Bike/Ped Bridge
Option A: Bike/Ped Bridge			
Dean Street/ Berry Avenue	Route 37	James Street	SLM
James Street	Berry Avenue	Park Crest Road	SLM
Park Crest Road	James Street	Walnut Street	SLM
Option B: Hooper Ave intersection			
Hooper Avenue	Route 37	Division St	Shared Use Path
Division Street	Hooper Avenue	Boyd Street	Shared Use Path & SLM
Boyd Street	Division Street	James Street	SLM
James Street	Dean Street	Roberts Avenue	SLM
Roberts Avenue	James Street	Walnut Street	SLM
Walnut Street	Park Crest Rd/ Roberts Ave	Edken Avenue	SLM
Edken Avenue	Hooper Avenue	Cedar Grove Road	SLM
Cedar Grove Road	Edken Avenue	Clifton Avenue	Buffered Bike Lanes
Clifton Avenue	Cedar Grove Road	Washington Street	Bike Lanes
Washington Street	Whittier Ave	Central Avenue	Buffered Bike Lanes
Washington Street	Central Avenue	Dock Street	SLM
Dock Street	Washington Street	E Water Street	Buffered Bike Lanes
E Water Street	Dock Street	Hooper Avenue	Buffered Bike Lanes
E Water Street	Hooper Avenue	Main Street / Route 166	Separated Bike Lanes
W Water Street	Main Street / Route 166	Herflicker LOOP project	Buffered Bike Lanes

1/5

APPENDIX 5: Outreach

4/8/2019

Toms River Bicycle Pedestrian Plan
Preliminary Bicycle Pedestrian Network

Network	Cross Street	Cross Street	Facility Type
Loop 1: Bey Lea - Money Island			
Barnegat Branch Trail	Township border	Railroad Corridor	Planned Trail
Railroad corridor	BBT	Utility corridor	Proposed Trail
Utility Corridor	Railroad Corridor	Indian Head Road	Proposed Trail
Indian Head Road	Utility Corridor	N Bay Avenue	Shared Use Path
N Bay Avenue	Indian Head Road	Oak Avenue	Separated Bike Lanes
Oak Avenue	N Bay Avenue	Freedom Park Trail	Shared Use Path
Freedom Park Trail	Oak Avenue	Indian Hill Road	Existing Trail (requires
Indian Hill Road	Freedom Park Trail	Yellowbank Road	Buffered Bike Lanes
Yellowbank Road	Indian Hill Road	Cedar Grove Road	Bike Lanes
Cedar Grove Road	Yellowbank Road	Brookside Drive	Bike Lanes
Brookside Drive	Cedar Grove Road	Route 37	Bike Lanes
Route 37	Brookside Drive	Law Street	Shared Use Path
Washington Street	Route 37	Whittier Avenue	Buffered Bike Lanes
Whittier Avenue	Washington Street	Keats Avenue	SLM
Loop 2 - Whitty Road - OC College			
Barnegat Branch Trail	Township Border	Railroad Corridor	Planned Trail
Railroad Corridor	Barnegat Branch Trail	Winding River Trail	Proposed Trail
Winding River Trail	Railroad Corridor	Oak Ridge Parkway	Existing Trail
Oak Ridge Parkway	Winding River Trail	CR 571 / Indian Head Road	Shared Use Path
CR 571 / Indian Head Road	Oak Ridge Parkway	Gardenia Way	Shared Use Path
Gardenia Way/ Sunflower Ln/	Indian Head Road	Route 9	Shared Street/Bike Blvd
Route 9	Gardenia Way	Whitty Road	Shared Use Path
Whitty Road	Route 9	Old Freehold Road	Buffered Bike Lanes
Old Freehold Road	Whiity Road (west)	Whiity Road (east)	Buffered Bike Lanes
Whitty Road (east)	Old Freehold Road	N Bay Avenue	Buffered Bike Lanes
Ocean County College Trail	N Bay Avenue	Hooper Avenue/Trail	Existing Trail

2/5

APPENDIX 5: Outreach

4/8/2019

Toms River Bicycle Pedestrian Plan
Preliminary Bicycle Pedestrian Network

Network	Cross Street	Cross Street	Facility Type
Trail (near Intermediate school on	Hooper Avenue	Cedar Grove Road	Existing Trail (requires
Cedar Grove Road	Trail	Yellowbank Road	Buffered Bike Lanes
Yellowbank Road	Cedar Grove Road	Flaam St/Verdant Road	Shared Street/Bike Blvd
Vaughn Avenue (CR 627)	Verdant Road	Route 37	Separated Bike Lanes
West End Avenue (CR 627)	Route 37	Whittier Avenue	Buffered Bike Lanes
Whittier Avenue	W. End Avenue	River Drive	Shared Street/Bike Blvd
River Drive	Whittier Avenue	Riviera Ave/Waterfront	Shared Street/Bike Blvd
Loop 3: Winding River - Cattus Island			
Barnegat Branch Trail (Toms River)	Township border	Railroad Corridor	Planned Trail
Railroad Corridor	Wrangle Brook Road	BBT	Proposed Trail
Wrangle Brook Road	Railroad Corridor	Route 37	SLM
Cardinal Drive	Route 37	Oak Leaf Lane	SLM
Oak Leaf Lane	Cardinal Drive	Sun Valley Road	Shared Street/Bike Blvd
Sun Valley Road	Oak Leaf Lane	Winding River Trail	Shared Street/Bike Blvd
Winding River Trail	Sun Valley Road	Riverwood Drive	Existing Trail
Riverwood Drive	Winding River Trail	Whitesville Road	Shared Street/Bike Blvd
Whitesville Road	Riverwood Drive	Stevens Road	Separated Bike Lanes
Stevens Road	Whitesville Road	Route 9 / Utility Path	Bike Lanes
Utility Path	Route 9	Cobblestone Ct	Shared Use Path
Church Road / CR 620	New Hampshire Road / CR 623	Hooper Avenue	Shared Use Path
Hooper Avenue	Church Road	Trail	Shared Use Path
Trail (near Intermediate school on Hooper Avenue)	Hooper Avenue	Shore Blvd	Existing Trail (requires maintenance)
Shore Blvd	Trail	Maypink Drive	Shared Street/Bike Blvd
Maypink Drive	Shore Blvd	Merrimac Drive	Shared Street/Bike Blvd
Merrimac Drive	Maypink Drive	Cattus Island Trail	SLM
Cattus Island Trail	Merrimac Drive	Bay Avenue	Existing Trail (requires maintenance)

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APPENDIX 5: Outreach

4/8/2019

Toms River Bicycle Pedestrian Plan
Preliminary Bicycle Pedestrian Network

Network	Cross Street	Cross Street	Facility Type
Bay Avenue	Cattus Island Trail	Portabello Road	Shared Use Path
Bay Avenue	Portabello Road	Fischer Blvd	Buffered Bike Lanes
Fischer Blvd	Bay Avenue	Cottonwood Drive	Shared Use Path
Cottonwood Drive	Fischer Blvd	Garfield Avenue	SLM
Garfield Avenue	Cotonwood Drive	Waterfront	Bike Lanes
Loop 4: Northern Tier			
Whitesville Road / Route 527	Riverwood Road	Township border/Locust Manor	Separated Bike Lanes
Stab Branch Trail	Whitesville Road	Cox Cro Road	Existing Trail (requires maintenance)
Cox Cro Road	Trail	Massachussets Avenue	Shared Use Path
Massachussets Avenue	Cox Cro Road	N Maple Avenue	Separated Bike Lanes
N Maple Avenue	Massachussets Avenue	Robert Moses Trail	SLM
Robert Moses Trail	N Maple Avenue	N Maple Avenue	Existing Trail (requires maintenance)
N Maple Avenue	Robert Moses Trail	New Hampshire Road	Shared Use Path
New Hampshire Road / CR 623	N Maple Avenue	Church Road	Separated Bike Lanes

4/5

APPENDIX 5: Outreach

Toms River Bicycle Pedestrian Plan
Preliminary Bicycle Pedestrian Network

Network	Cross Street	Cross Street	Facility Type
Bay Avenue	Cattus Island Trail	Portabello Road	Shared Use Path
Bay Avenue	Portabello Road	Fischer Blvd	Buffered Bike Lanes
Fischer Blvd	Bay Avenue	Cottonwood Drive	Shared Use Path
Cottonwood Drive	Fischer Blvd	Garfield Avenue	SLM
Garfield Avenue	Cotonwood Drive	Waterfront	Bike Lanes
Loop 4: Northern Tier			
Whitesville Road / Route 527	Riverwood Road	Township border/Locust Manor	Separated Bike Lanes
Stab Branch Trail	Whitesville Road	Cox Cro Road	Existing Trail (requires maintenance)
Cox Cro Road	Trail	Massachussets Avenue	Shared Use Path
Massachussets Avenue	Cox Cro Road	N Maple Avenue	Separated Bike Lanes
N Maple Avenue	Massachussets Avenue	Robert Moses Trail	SLM
Robert Moses Trail	N Maple Avenue	N Maple Avenue	Existing Trail (requires maintenance)
N Maple Avenue	Robert Moses Trail	New Hampshire Road	Shared Use Path
New Hampshire Road / CR 623	N Maple Avenue	Church Road	Separated Bike Lanes

APPENDIX 5: Outreach

DRAFT

Visioning Workshops Memorandum

Toms River Bicycle & Pedestrian Plan | NJDOT Local Technical Planning Assistance

TO:	Bill Riviere, NJDOT & Toms River Bicycle & Pedestrian Plan Steering Committee
FROM:	Rachana Sheth & Mike Dannemiller, NV5
CC:	Bettina Zimny and NV5 Staff
SUBJECT:	Toms River Bicycle & Pedestrian Plan: Visioning Workshops
DATE/TIME:	02/05/2019 (6:00 p.m. - 9:00 p.m); 02/13/2019 (4:00 p.m. - 7:00 p.m.)
LOCATION:	Toms River Township: High School East, High School North
ATTENDEES:	See Sign-In Records
MEMO DATE:	02/26/2019 (DRAFT)

Overview

NV5 facilitated two Visioning Workshops for the Toms River Bicycle and Pedestrian Plan in February 2019. The workshops were held in different locations and at different times to allow the community to select a date that would work best for their schedule. The meeting details were shared with the community via a press release and workshop flyer on the Township's website, social media pages, the project website and Toms River Patch. A total of 36 participants attended the workshops (see attached sign-in sheets). The workshop details are listed below:

- Visioning Workshop #1:
  - Date & Time: February 5th, 6:00 p.m. to 9:00 p.m.
  - Venue: Entrance lobby, Toms River High School East, 1225 Raider Way, Toms River, NJ 08753
- Visioning Workshop #2:
  - Date & Time: February 13th, 4:00 p.m. - 7:00 p.m.
  - Venue: Media Center, Toms River High School North, 1245 Old Freehold Road, Toms River, NJ 08753

Purpose

The goal of the visioning workshops was to introduce the project to the community, begin to develop a community vision, present the online outreach tools and identify problem areas, issues and opportunities related to pedestrian and bicycle travel in Toms River Township.

Workshops Format

The workshops were held in an Open House format. The materials were organized into three stations for gathering input from the community. All meeting materials are attached.

Station # 1: Welcome/Introduction/Survey
Station # 2: Bicycle/Pedestrian Planning 101 + Vision/Goals
Station # 3: Existing Conditions + Mapping Exercise

Summary of Comments

- Safety is a top priority. The preferred routes connecting major destinations are msotly on high speed roads with minimal shoulders
- There is considerable interest in developing bicycle and pedestrian-friendly connections to the Township's parks and commercial areas including downtown
- Existing utility corridors can be utilized and are currently unofficial trails
- Education of drivers, bicyclists and pedestrians is required
- Residential neighborhoods that are disconnected from the rest of the Township should have safe bicycle and pedestrian routes to key destinations

Action Items/Next Steps

1. NV5 will draft a Vision Statement and Goals utilizing input and priorities gathered at the two workshops for Steering Committee review.
2. NV5 will finalize and submit an Existing Conditions Technical Memorandum
3. NV5 will utilize the input recieved at workshops, existing conditions analysis and online input from the survey and Wikimapping to begin identifying a priority bicycle and pedestrian network.
4. A Steering Committee Network review meeting will be scheduled for late March or/early April.
5. NV5 will work with NJDOT and the Township to identify potential dates/venues for the final Public Information Center to be held in May. Potential dates that were identified include:
    - May 4th - Toms River Food Festival
    - May 18th - Annual NJ State Chilli & Salsa Cook-off
    - Downtown Farmers Market (held every Wednesday)

Visioning Exercises

The goal of the Visioning station was to get input on setting a vision for bicycle and pedestrian travel in Toms River Township. This was initiated by sharing a brief overview of bicycle and pedestrian planning utilizing Complete Street boards with information on barriers for safe walking and bicycling, potential engineering improvements to make streets bicycle and pedestrian friendly and some programs and policies to encourage and educate the community about safe walking and bicycling.

Attendees were asked peruse the Complete Street boards and then provide their recommendations for a Vision statement, vote on goals that are important to them, and begin identifying strategies to achieve the vision and goals.

Vision

The list below provides the participants' ideas for the Vision for the Toms River Bicycle and Pedestrian Plan:

- If you build it, they will come
- Connect the vital needs of the community. Everyone should be able to reach basic things, grocery, culture, fitness, social/community centers without using a car
- Less traffic, less pollution, fewer heart attacks
- WIde shoulders at a minimum to safely ride
- People should have a way to walk or bike to their voting location and local grocery store
- Aging population - attract younger population by building walkable communities
- Connectivity - attractive bike paths
- If the pedestrian & bicycle plan is implemented Toms River will rival any town to the North or South for attracting the next generation. Live, work, play in Toms River, no car necessary
- Interconnect existing developments with links to avoid highways. For example, Leawood and North Branch developments
- Safe options for walking and biking across the whole community with connectivity among neighborhoods and with adjacent communities that people can travel safely without using their cars.
- Toms River provides a convenient corridor for accessing multiple connected systems of parks, trails, walking and riding paths that include the surrounding boroughs and towns.
- Linkages to public spaces, parks, education facilities and recreational amenities (private or public) in a safe manner and easily found (wayfinding). Trails should be scenic where possible, e.g. along the river, bayfront and ocean. Connect to adjoining municipalities if they ahve trails/linkages. Town vision should encourage alternative and scenic resources.

Goals

The following goals recieved the most votes:

1. Safety: Develop a safe and continuous bicycle and pedestrian network (13 votes)

2. Environmental: Reduce the environmental impacts of the transportation system (7 votes)

3. Regional Connectivity: Improve connectivity to/with adjacent communities (6 votes)

3. Recreation: Provide recreation options to encourage walking and bicycling in Toms River Township (6 votes)

The attendees added the following goals:

- Develop routes through problem areas like Silverton connect to college to get to western section of town
- Simple PSA to remind cyclists of their obligations could be paid for partially by events and fees to enter
- Provide safer and easier access for walkers and cyclists to parks and schools
- Develop an educational outreach program focused on younger riders to develop basical riding skills
- Petition the town to consider a closed-road bicycle race (New Jersey Bicycling Association)
- Bike path and pedestrian walkway on Fischer Blvd.
- Local connectivity


BE BOLD


STATION #2
BIKE/PED 101
VISION & GOALS

Strategies

- Link bike/walking trails on Open Space lands to connect various Toms River and County Parks
- Dedicated bike paths and protected bike lanes will ensure people will use them and be safe. Bike racks in abundance will allow people to stop and shop. Benches near bike racks will increase this. Focus on safe route to schools to encourage children and teens to ride. Provide free bike workshops and repair. Create access to low income people to get bike and locks. Community space that offers bikes for free if the individual builds it themselves. This works well with children.
- Education for both motorist and cyclist that promote health and safety. Visual ability, lights, traffic safety
- Education motorists and cyclists
- Make traveling between community centers versatile and safe i.e. OCYMCA, TR parks, County parks, Barnegat Bay Eco Center, Large shopping centers, grocery stores, bike stores
- Bike cooperative where bikes can be salvaged, people can work off a bike, learn business/mechanic skills. Just like “2nd Life Bikes” in Asbury Park, NJ
- Local cycling clubs open to all with various group rides, events. Bike Cooperative staffed by local volunteers.
- All Twp roads other than residential streets, should at the very least be striped for bike lanes. Bike lanes should lead to Route 37 intersections with lightest traffic such as Bachelor Street and at Mathis Bridge jughandle. Existing utility Rows should contain trails covered with gravel and asphalt.
- Work with County regarding sidewalks and bike lanes on County roads:
    1. Bike Lanes/wide shoulders
    2. Safe crossing i.e. mid-highway island “safe stop spot”
    3. Bike lane between parked cars and sidewalk
    4. Link off-road routes to destinations where possible
- Adding sidewalks increase safety for both pedestrians and drives. It would be amazing to be able to walk a mile or two from home to a restaurant to shopping on a nice day.
- A detailed GPS mapping of trail, walking and cycling paths that can be accessed through the web or an app-based system. Integration with Garmin maps. This allows for downloading amps with turn by turn directions. Social media feeds, including Twitter, Facebook, Instagram. This will help promote what is available for use in Toms River, and is key to promote public transportation.
- Retrofit existing developments with linking bike paths. Also link employment locations with sidewalks or paths. For example: Pathmark / Ollie’s Plaza with Leawood via sidewalk.
- Continuous sidewalks across town, dedicated bike/walking paths and lanes and create a bike/passenger Ferry system to fill gaps and reach the island communities. Utilize and finish rail trails in Western TR and Manchester and connect rail trails to Bayville.
- Linkages to public recreation, parks and educational facilities using public lands or semi government lands. Signage w/ easy-to-read markers. Use reduced travel cartway (diet the road width as needed). Bicycle lane need not be overly wide to meet DOT standard as there is no large bike traffic at this time. Perhaps if there is a lot of bike traffic, revisit the bike lane width. Request Ocean County Government to allow use of County Roads. Retrofit wide road w/ bike lanes.

Mapping Exercise Summary

The workshop participants identified major destinations, preferred routes, perceived barriers, areas in need of improvement, and opportunities on a Toms River map and on WikiMapping during the workshops. A copy of the marked up map is attached.

Destinations/Community Assets

- Riverwood Park
- Boy Scout Summer Camp
- Winding River Park
- Schools
- Senior Center
- Ocean County College
- Shelter Cove Park
- Silverton Neighborhood
- Commercial areas along Route 37
- Toms River Township Pool near Cattus Island
- Skyview Park
- Deer Hollow Park
- Little League Park
- Bey Lea Golf Course

Preferred Routes

- Ciba-Geigy Bikeway to Winding River Park
- Safe route to the shopping center along Fischer Blvd
- Connect Skyview park to the East Dover Elementary School
- Whitesville Road has wide shoulders and can be a bicycling route

Barriers/Issues

- Entry to Cattus Island and Cooper Environmental Center is unsafe for bicyclists and pedetrians due to constrained width and speeding vehicles
- There are no sidewalks near the Senior Center
- Improve the gravel surface near the MUA trail
- Unsafe Intersections:
    - Route 37, Route 166 and Route 9
    - Vaughn Avenue and Hazelwood Road
- Sidewalk missing near the Wawa on Hooper Avenue to the Fischer Blvd intersection
- Sidewalk missing from College Drive to Fischer Blvd on Hooper Avenue
- Shared Use Path in Winding River Park can sometimes be overcrowded and there maybe conflicts between bicyclists and walkers

Opportunities

- Existing decommissioned railroad along the western border parallel to Route 37. Also connect to Ciba-Geigy/Winding River park from this potential rail-to-trail.
- Consider a pedestrian-only street on Washington Street between Hooper Avenue and Main Street/Route 166

Attachments

1. Sign-In Sheets
2. Vision/Goals/Strategies Markup


Blue: Destinations
Green: Preferred Routes
RED: Barriers
Downtown Map
TOMS RIVER BICYCLE & PEDESTRIAN PLAN
NJDOT Local Technical Planning Assistance
Map
EXISTING
CONDITIONS
LEGEND
Roads
Sidewalk Inventory (2008)
BOTH SIDES
ONE SIDE
Barnegat Branch Trail
Constructed
Future
Winding River Park Trails
Proposed Bicycle Lanes (2010)
NJDOT Shore Tour
Streams
Commercial/Developed Area
State/County Open Space
Open Space / Parks
EMS
Fire Stations
Medical
Ocean County College
Hospitals
Police
Schools
Private
Public
JACKSON TOWNSHIP
LAKEWOOD TOWNSHIP
MANCHESTER TOWNSHIP
BERKELEY TOWNSHIP
LAVALLETTE BOROUGH
SEASIDE HEIGHTS BOROUGH
ISLAND HEIGHTS BOROUGH
SOUTH TOMS RIVER BOROUGH
BEACHWOOD BOROUGH
0 0.5 1 Miles
NORTH
Data Source: Toms River Planning Department, Sidewalk (2007)
BIKE + PED FERRY
Boat + BIKE

Sign-In Sheet: Visioning Workshop #1

VISIONING WORKSHOP

FEBRUARY 5, 2013—TOMS RIVER HS EAST

NAME *(PLEASE PRINT CLEARLY)*	ORGANIZATION *(IF APPLICABLE)*	EMAIL ADDRESS FOR UPDATES *(PLEASE PRINT CLEARLY)*	HOW DID YOU HEAR ABOUT THIS MEETING?

VISIONING WORKSHOP

FEBRUARY 5, 2019—TOMS RIVER HS EAST

NAME (PLEASE PRINT CLEARLY)	ORGANIZATION (IF APPLICABLE)	EMAIL ADDRESS FOR UPDATES (PLEASE PRINT CLEARLY)	HOW DID YOU HEAR ABOUT THIS MEETING?
	NJDOT		

VISIONING WORKSHOP

FEBRUARY 5, 2019—TOMS RIVER HS EAST

NAME (PLEASE PRINT CLEARLY)	ORGANIZATION (IF APPLICABLE)	EMAIL ADDRESS FOR UPDATES (PLEASE PRINT CLEARLY)	HOW DID YOU HEAR ABOUT THIS MEETING?
Rachana Sheth	NV5	RACHANA.SHETH@NV5.COM	
Mike Dannemiller	NV5	Mike.Dannemiller@nv5.com	DOT

Sign-In Sheet: Visioning Workshop #2

VISIONING WORKSHOP #2

FEBRUARY 13, 2019—TOMS RIVER HS NORTH

NAME (PLEASE PRINT CLEARLY)	ORGANIZATION (IF APPLICABLE)	EMAIL ADDRESS FOR UPDATES (PLEASE PRINT CLEARLY)	HOW DID YOU HEAR ABOUT THIS MEETING?
[illegible]	[illegible]	rob.[illegible]@nv5.com	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
Rachana Sheth	NV5	RACHANA.SHETH@NV5.com	

VISIONING WORKSHOP #2

FEBRUARY 13, 2019—TOMS RIVER HS NORTH

NAME (PLEASE PRINT CLEARLY)	ORGANIZATION (IF APPLICABLE)	EMAIL ADDRESS FOR UPDATES (PLEASE PRINT CLEARLY)	HOW DID YOU HEAR ABOUT THIS MEETING?

VISIONING WORKSHOP #2

FEBRUARY 13, 2019—TOMS RIVER HS NORTH

NAME *(PLEASE PRINT CLEARLY)*	ORGANIZATION *(IF APPLICABLE)*	EMAIL ADDRESS FOR UPDATES *(PLEASE PRINT CLEARLY)*	HOW DID YOU HEAR ABOUT THIS MEETING?

Vision / Goals/ Strategies Markup (both workshops)

WHAT'S *YOUR VISION* FOR THE TOMS RIVER BICYCLE AND PEDESTRIAN PLAN?

VISIONING WORKSHOP

A vision statement focuses on the future and answers the question, "What will success look like?" if the Bicycle and Pedestrian Plan is implemented.

Based upon your input at this meeting, a draft vision statement will be developed, reviewed and revised by the Steering Committee.

Use the space here to tell us about your vision for the Toms River Bicycle & Pedestrian Plan.

If you build it, they will come.

Connect the vital needs of the community. Everyone should be able to reach basic things, grocery, culture, fitness, social/community centers w/o using a car.

Less traffic, Less pollution, fewer heart attacks ... 50 miles per burrito.

Wide Shoulders at a minimum 4' to safely ride

People should have a way to walk or bike to their voting location and local grocery store.

Aging population - attract younger people by building walkable communities - Labor shortages!

Connectivity - attractive bike paths

If the pedestrian + bicycle plan is implemented Toms River will rival any town to the North or South for attracting the next generation. Live, work, play in Toms River, no car necessary

Inter connect existing developments with links - to avoid highways. for example: Leawood & North Branch developments

Safe options for walking + Biking across the whole community, ~~and~~ with connectivity among neighborhoods and with adjacent communities so that people can travel safely without using their cars.

Toms River provides a convenient corridor for accessing multiple connected systems of parks, trails, walking and riding paths that include the surrounding boroughs and towns.

Linkages to public spaces, parks, education facilities and recreational ~~par~~ amenities (private or public) IN a safe manner and easily found (wayfinding). TRAILS should be scenic where possible, eg: along the river, bayfront & ocean. Connect to adjoining municipalities if they have trails/linkages. Town division should encourage alternative & scenic resources.

SAMPLE VISION STATEMENTS

"Bay Head is a community where walking and bicycling is safe, convenient and enjoyable for residents and visitors of all ages and abilities. The Borough's transportation network connects people to places, supports the local economy, enhances the wellness of its residents, benefits the environment, and preserves its identity as a quiet and charming, seaside town."

Vision Statement

New Jersey is a place where people of all ages and abilities are able to bicycle and walk. Those who live, work, or visit are able to conveniently walk and bicycle with confidence, a sense of security in every community, and with the respect of all modes. Both activities are a routine part of the transportation and recreation systems.

Walking and bicycling in Salt Lake City will be safe, convenient, comfortable, and viable transportation options that connect people to places, foster recreational and economic development opportunities, improve personal health and the environment, and elevate quality of life.

Riverton Borough is a community that maintains its small-town feel by encouraging and promoting bicycle and pedestrian-friendly streets. Residents and visitors of all ages can travel around the community safely and confidently and pedestrians and cyclists have the ability to access parks, shops, work and school safely from anywhere within the Borough.

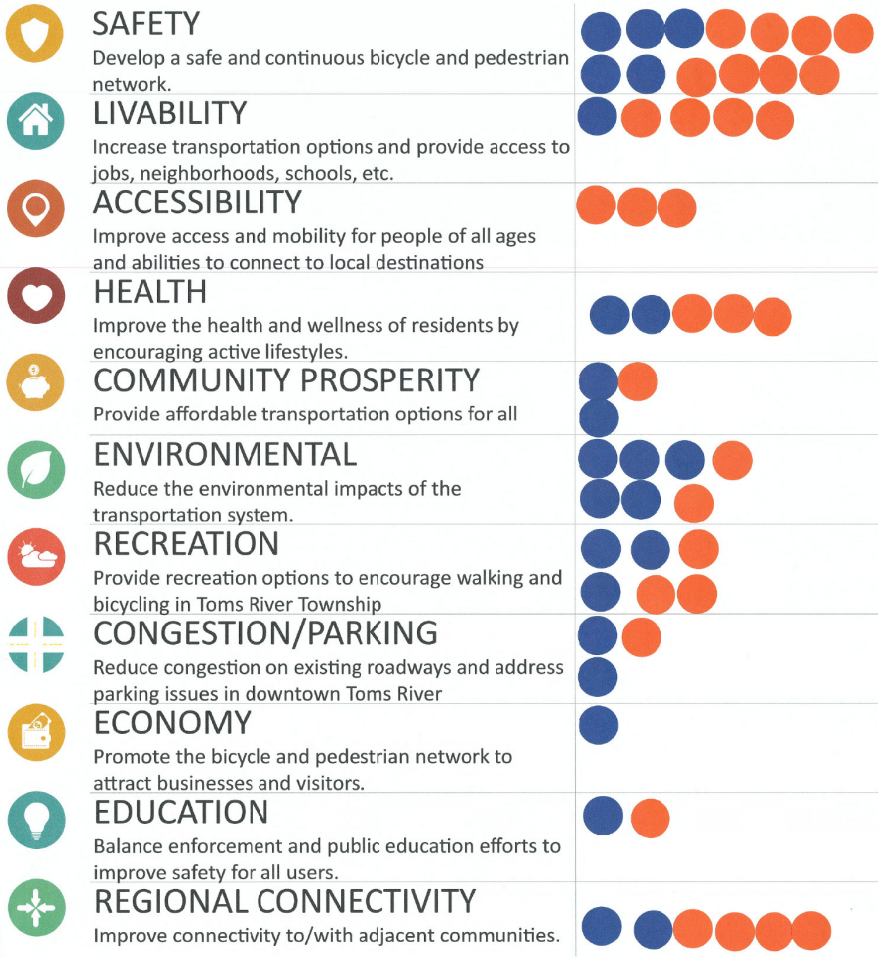
Villa Park will build on its robust trail system, compact street grid, and transit access to make it an ideal community for walking and biking. By advancing its Bicycle and Pedestrian Master Plan, the Village's trails, schools, recreational spaces, commercial areas, and other destinations will be safe and comfortably accessible to all residents, making active transportation a viable option for trips made throughout the community.

Tell us YOUR GOALS FOR THE TOMS RIVER BICYCLE AND PEDESTRIAN PLAN?

VISIONING WORKSHOP

Please vote on the goals that are the most important to you.

Based upon your input at this meeting, a set of goals will be developed, reviewed and revised by the Steering Committee.



SAFETY
Develop a safe and continuous bicycle and pedestrian network.

LIVABILITY
Increase transportation options and provide access to jobs, neighborhoods, schools, etc.

ACCESSIBILITY
Improve access and mobility for people of all ages and abilities to connect to local destinations

HEALTH
Improve the health and wellness of residents by encouraging active lifestyles.

COMMUNITY PROSPERITY
Provide affordable transportation options for all

ENVIRONMENTAL
Reduce the environmental impacts of the transportation system.

RECREATION
Provide recreation options to encourage walking and bicycling in Toms River Township

CONGESTION/PARKING
Reduce congestion on existing roadways and address parking issues in downtown Toms River

ECONOMY
Promote the bicycle and pedestrian network to attract businesses and visitors.

EDUCATION
Balance enforcement and public education efforts to improve safety for all users.

REGIONAL CONNECTIVITY
Improve connectivity to/with adjacent communities.

Write additional goals here and vote on goals added by others.

Develop routes through problem areas like Silvertons connect to college to set to western section of town.

Simple PSA to remind cyclists of their obligations could be put for partially by events and fees to enter.

Provide safer and easier access for walkers & cyclists @ parks & schools.

Develop an educational outreach program focused on younger riders to develop basic riding skills.

Petition the town to consider a closed road bicycle race. NJTBA.com

Bike path link pedestrian walkway on Fischer Blvd.

LOCAL CONNECTIVITY

Need Community outreach and education to inform public on safe biking

Vision / Goals/ Strategies Markup (both workshops)

BICYCLE & PEDESTRIAN PLAN
Township of Toms River

WHAT STRATEGIES / ACTIONS WILL HELP US ACHIEVE THE VISION

VISIONING WORKSHOP

NV5 STOKES Creative Group, Inc.

Write down your ideas to achieve the vision for bicycle and pedestrian travel in Toms River Township. For example, adding sidewalks near key destinations, linking trails to sidewalks, adding radar speed enforcement, education of drivers about safety. etc.

Link bike/walking trails on Open Space lands to Connect various TR + county Parks.

Dedicated bike paths + protected bike lanes will ensure people will use them + be safe. Bike racks in abundance will allow people to stop and shop. Benches near bike racks will increase this. Focus on safe routes to schools to encourage childrens teens to ride. Provide free bike workshops + repair. Create access to low income people to get bikes + locks. Community space that offers bikes for free if the individual builds it themselves. This works well with children.

Education for both Motorist and cyclist that promote health and saftey. Visualability, Lights, Traffic Safety

Educate motorists & cyclists

Make traveling between community centers versatile & safe ie. OCYMCA TR parks, county parks, Barnegat Bay Eco Center, Large shopping Centers & grocery stores, bike stores.

Bike cooperative where bikes can be salvaged, people can work off a bike, learn business/mechanic skills. Just like "2nd Life Bikes" in Asbury Park, NJ

Local Cycling Clubs open to all with various group rides, events. Bike cooperative staffed by local Volunteers.

All Twp Roads, other than residential Streets should at the very Least be stripped for Bike lanes. Bike Lanes should Lead to Rt 37 Intersections with lightest traffic such as Bachelor St and at Mathis Bridge jughandle. Existing utility ROWs should contains trails covered with gravel or Asphalt.

Work with county regarding sidewalks & bike lens on county roads

1) Bike lanes / wide shoulders.
2) safe crossings ie mid highway island "safe stop spot"
3) Bike lane between parked cars and sidewalk
4) Link approach routes to destinations where possible
5)

Adding sidewalks increases safety for both pedestrians and drivers. It would be amazing to be able to walk a mile or two from home to a restaurant to shopping on a nice day

A detailed GPS mapping of trail, walking, and cycling paths that can be accessed through the web, or a app-based system.

Integration with Garmin maps. This allows for downloading maps with turn by turn directions.

Social Media Feeds, including Twitter, Facebook, Instagram. This will help promote what is available for use in Toms River, and is key to promote public participation.

Retrofit existing developments w/linking bike paths. also link employment locations with sidewalks or paths → for example: Pathmark/Ollie's Plz with Leawood via sidewalk.

Continuous sidewalks across town, dedicated bike/walking paths and lanes. AND – Create a bike/passenger ~~Ferry System with~~ to fill gaps + reach the island communities. Utilize and ferien rail trails in western TR and Manchester and connect to rail trails in Bayville.

Linkages to public recreation, parks and educational facilities using public lands or "semi" govt lands. Signage w/ easy to read markers. Use reduced travel cartway (diet the road width as needed. Bicycle lane need not be overly wide to meet DOT standard as there is ~~not~~ no large bike traffic. ~~and~~ at this time. Perhaps if there is a lot of bike traffic re-visit the bike lane width.

Request Ocean County Govt. to allow use of county roads. Retrofit wide road w/ bike lanes.

ACKNOWLEDGMENTS

The project team would like to recognize and express appreciation to the numerous individuals who contributed information, attended a meeting or workshop, sent in a comment, or otherwise participated in the development of the Toms River Township Local Technical Assistance Project.

Special thanks to the Steering Committee for their time and on-going commitment to making Toms River Township a safe and enjoyable place for walking and bicycling.

Project Team

The Office of Bicycle and Pedestrian Programs, New Jersey Department of Transportation & the Township of Toms River.

With

NV5 And STOKES Creative Group, Inc.

Steering Committee

Alizar Zorojew, Business Improvement District, Executive Director

Bill Riviere, NJDOT, Office of Bicycle and Pedestrian Programs, Project Manager

Cassie Shugart, Ocean County Dept. of Planning, Planner Trainee

Dave Roberts, Toms River Township, Township Planner

Erika Stahl, Toms River Township, Assistant Township Planner

Jared Tate, Parks & Recreation, Director

Jerry Foster, Greater Mercer TMA

Laurie Huryk, Council Member, Ward 3

John Ernst, Ocean County Dept. Of Engineering

Mark Jehnke, Ocean County Engineering Dept., Assistant County Engineer

Maurice Hill, Toms River Township, Council

Robert Chankalian, Toms River Township, Township Engineer

Steve Schwartz, Police Department, Public Safety Officer

Victoria Pecchioli, Ocean County Dept. of Planning, Principal Planner

Wendy Birkhead, Toms River Township, Assistant Township Engineer

David Ciccozzi, Planning Board, Chairman

Donald Guardian, Toms River Township, Administrator

George Wittmann, Council Member, Council Vice Chairman

Greg Trout, Bike / PED Advocacy Groups, Beachwood Bicycles

Kevin Esposito, Fire Department, Fire Chief

Louis Amoruso, Public Works Department, Director

Marc Natanagara, Board of Education, Asst. Superintendant

Thomas F. Kelaher, Toms River Township, Mayor

Photos courtesy of Stokes Creative Group, Inc.

APPENDIX 5: Outreach

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MEMORANDUM

To:	Bill Riviere, NJDOT	**Date:**	5/13/2019
From:	Rachana Sheth & Mike Dannemiller	**Project:**	Toms River LTA NV5# 0000095.17
CC:	Bettina Zimny		
Subject:	Public Information Center held on Saturday 5/4/2019		

NV5 facilitated the Toms River Bicycle and Pedestrian Plan Public Information Center on Saturday 5/4/2019. The meeting was held as part of the Toms River Food Festival from 1:00 – 3:00 pm. The project team set up a booth/ tent along Washington Street alongside vendors and government groups. This venue helped to maximize input and diversify participants beyond those who would typically go out of their way to attend an independent transportation enhancements project information center.

Purpose

The purpose of the meeting was to solicit feedback and help to build consensus for the bicycle and pedestrian facility network and begin to identify priorities for a phased implementation plan. Refined network mapping and typical concepts were the basis for the Public Information Center participation. The project team setup an activity table for kids with a safety quiz and other activities to involve the kids and to encourage parents to participate and easily provide their feedback.

Meeting Summary

Bill Riviere and David Roberts encouraged people to participate as they were walking along Washington Avenue. They encouraged people to get information and share their insights and feedback. Rachana Sheth and Mike Dannemiller interpreted the overall network that focused on connecting Winding River Trail, Downtown, Cattus Island and the waterfront to destinations throughout Toms River Twp including schools, parks, commercial areas, senior center, OC College and residential areas. Nicole Pace (Stokes) shared the public

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participation options, including the project specific website, wiki-map and the comment forms available on site. The team encouraged participants to share their insight on what (or if) any specific project segments should be prioritized. Results were tallies through the placement of sticker dots on the draft network map. Green dots were used for top priority, and yellow dots were offered, but not always used, for second choice project segments. Up to three dots of each color were available for each participant.

Approximately half of the visitors to the booth chose to participate in placing a DOT on the "Where do you live?" exercise board. There were about 50 dots on the map, including seven character dots that were reserved for children (working with adults). This exercise helped us to determine if people from all neighborhoods of Toms River were represented.

Network Overview

NV5 presented a draft network of bicycle and pedestrian facilities that can be implemented over time through a range of on-road and off-road corridor enhancements. The network was presented as a series of broad loops, and other connecting segments. The following network loops were identified:

- Downtown Loop (includes a downtown grid)
- Loop 1 – Bey Lea - Money Island Beach
- Loop 2 – Whitty Road – OC College
- Loop 3 – Winding River Park - Cattus Island Park
- Loop 4 – Northern Tier
- Connectors

APPENDIX 5: Outreach

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Priorities Identified

1. The downtown area, connections to Winding River Trail and Cattus Island Park were all identified as priorities
2. The pedestrian bridge that would cross Route 37 received several top priority votes
3. Segments throughout Toms River were also endorsed

Action Items/Next Steps

1. NV5 will interpret the public participation in the network priority setting, and develop a draft implementation matrix for team review
2. The draft Bicycle and Pedestrian Network Plan, including an implementation matrix will be submitted for review

Attachments

1. Presentation Boards
2. Priority Bicycle and Pedestrian Network – feedback with dots

The priority segments and locations throughout the network recommended by the public are marked up on the map included below (also in attachments):

NV5

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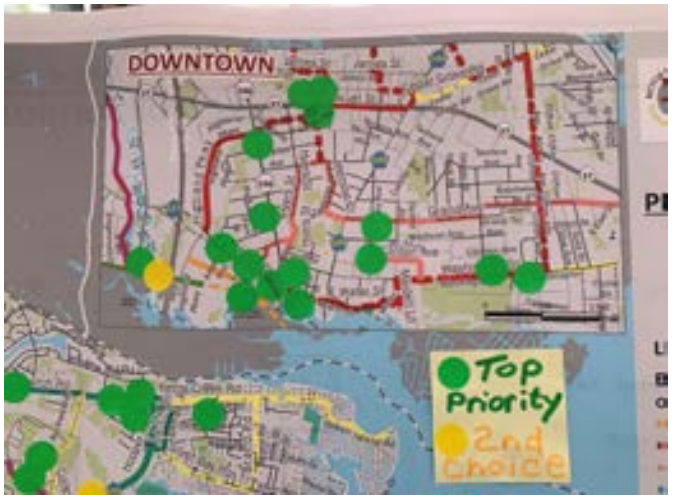


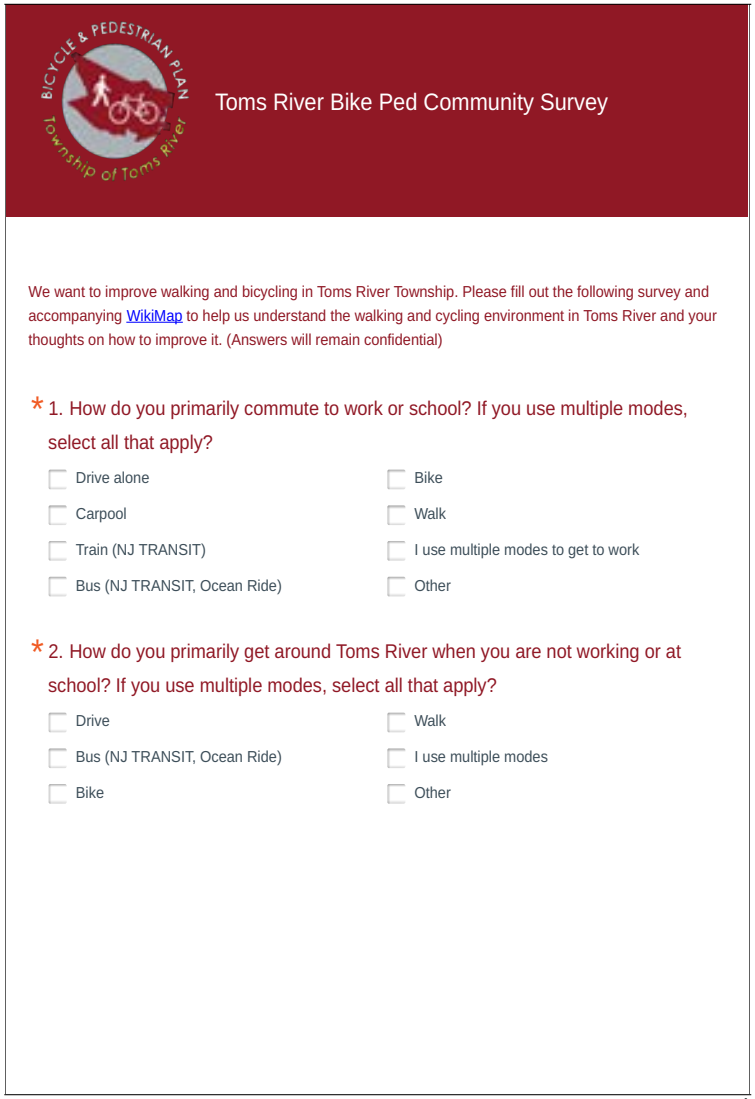
NV5

WikiMapping Public Input Results							
Category	Creation Date	Walking/Biking?	Comments	Issue 1	Issue 2	Issue 3	Issue 4
Barriers / Unsafe Intersection	5-Feb-19	BOTH	sidewalk ENDS	Missing Pedestrian Signal/Button			
UNSAFE Biking/Walking Route	5-Feb-19	WALKING ONLY	gap	Missing sidewalk			
UNSAFE Biking/Walking Route	5-Feb-19	WALKING ONLY	GAP in sidewalk network	Missing sidewalk			
UNSAFE Biking/Walking Route	2-Feb-19	BOTH	New housing and business development is happening but as of yet no sign of alleviating traffic or making this area more pedestrian/biker friendly.	Missing sidewalk	Speeding vehicles	Poor road surface	No Shoulder
UNSAFE Biking/Walking Route	27-Feb-19	BOTH	Sidewalks non-existent just west of the parkway (survey)	Missing sidewalk			
UNSAFE Biking/Walking Route	2-Feb-19	BOTH	Un-walkable, with bus stops (not accessible) by on 02/20/2019	Missing sidewalk	Speeding vehicles	Poor road surface	No Shoulder
UNSAFE Biking/Walking Route	27-Feb-19	BOTH	Walking route to school	Missing sidewalk	Speeding vehicles		
UNSAFE Biking/Walking Route	1-Feb-19	BOTH		Missing sidewalk	No Shoulder		
UNSAFE Biking/Walking Route	4-Feb-19	BOTH		Missing sidewalk	Poor road surface		
Barriers / Unsafe Intersection	3-Feb-19	BOTH	The tight left-handed bend at this point on NB-side is a focal point for open bed or trailers spilling what ever contents they are hauling. This causes the cyclist to move into the traffic lane to avoid the hazards.	Personal safety issues			
Barriers / Unsafe Intersection	3-Feb-19	BOTH	Traffic Education Needed. The cyclist must be in the traffic lane at this point. The corner is oily and care is needed when cornering. The motorist needs to understand this, slow and have patience. And not race to the merge at 166.	Personal safety issues			
UNSAFE Biking/Walking Route	27-Feb-19	BOTH	Hyers Street is a disaster in the earning morning when the school lets out. Kids go way too fast. Please have someone look at this before a kid dies. (Survey)	Speeding vehicles			
UNSAFE Biking/Walking Route	27-Feb-19	BOTH	Kids Walking/Biking to School (Survey)	Speeding vehicles			
UNSAFE Biking/Walking Route	1-Feb-19	BOTH	Lack of shoulder makes it unsafe for biking.	Speeding vehicles	No Shoulder		
UNSAFE Biking/Walking Route	14-Jan-19	BOTH	Route 37 is difficult to travel along and across	Speeding vehicles			
UNSAFE Biking/Walking Route	14-Jan-19	BOTH	Route 571 is difficult to travel along and across. Agree- shoulder is very narrow and connections to and from residential neighborhoods and Winding River Park is needed by Guest on 02/13/2019	Speeding vehicles			
UNSAFE Biking/Walking Route	14-Jan-19	BOTH	Route 9 is is difficult to travel along and across	Speeding vehicles			
UNSAFE Biking/Walking Route	1-Feb-19	BOTH	Very wide roads with good visibility means drivers run stop signs and take turns fast. I was hit here.	Speeding vehicles			
UNSAFE Biking/Walking Route	3-Feb-19	BIKING ONLY		Speeding vehicles	No Shoulder		
Barriers / Unsafe Intersection	4-Feb-19	BOTH	140 SilverBay Road... Curb Cuts and crossing is dirt and ADA Ramps on SilverBay road never upgraded with the last paving resurfacing project which is against the law not to bring ADA up to compliance. No curb ramps or safe route to Silverbay School.	Unsafe intersection	Missing curb ramps	Missing Crosswalk	Missing Pedestrian Signal Button
Barriers / Unsafe Intersection	14-Feb-19	BOTH	Cross walk time too short.	Unsafe intersection			
Barriers / Unsafe Intersection	26-Feb-19	BOTH	Dangerous intersection (Visioning Workshop)	Unsafe intersection			
Barriers / Unsafe Intersection	12-Dec-18	BOTH	Hard to Cross from Huddy Park to side of Street by Hotel or to 711	Unsafe intersection	Lack of bicycle parking	Lack of Benches	

WikiMapping Public Input Results							
Category	Creation Date	Walking/Biking?	Comments	Issue 1	Issue 2	Issue 3	Issue 4
Barriers / Unsafe Intersection	3-Feb-19	BOTH	The Orange safety barrels remain blocking the shoulder after church is out of session. This forces the bicyclist into the traffic lane. In addition, no street sweeping can place causing piles of rocks and hazards to build up.	Unsafe intersection			
Barriers / Unsafe Intersection	3-Feb-19	BOTH	The Orange safety barrels remain blocking the shoulder after school is out of session. This forces the bicyclist into the traffic lane. In addition, no street sweeping can place causing piles of rocks and hazards to build up.	Unsafe intersection			
Barriers / Unsafe Intersection	3-Feb-19	BOTH	TL Island impedes the flow of safe space for the cyclist.	Unsafe intersection			
Barriers / Unsafe Intersection	1-Feb-19	BOTH	Vehicles speed and ignore pedestrians	Unsafe intersection	Lack of signage		
Barriers / Unsafe Intersection	4-Feb-19	BOTH		Unsafe intersection			
Barriers / Unsafe Intersection	4-Feb-19	BOTH		Unsafe intersection			
Barriers / Unsafe Intersection	4-Feb-19	BOTH		Unsafe intersection			
Barriers / Unsafe Intersection	7-Feb-19	BOTH		Unsafe intersection			
Barriers / Unsafe Intersection	18-Feb-19	BOTH		Unsafe intersection			
Barriers / Unsafe Intersection	7-Feb-19	BOTH		Unsafe intersection	Personal safety issues		
DESIRED Biking/Walking Route	14-Dec-18	BOTH	25 mph - bike friendly				
DESIRED Biking/Walking Route	18-Feb-19	BIKING ONLY	Ability to bike safely to Toms River High School East				
Key Destinations	4-Feb-19	BOTH	Barnegat Bay EcoCenter is a huge community enhancer.				
Key Destinations	19-Feb-19	BOTH	Beach - local destination (Steering Committee)				
Key Destinations	20-Feb-19	BOTH	Bey Lea Park Visioning meeting				
Key Destinations	4-Feb-19	BIKING ONLY	Bicyclists should be able to bike to a bike shop!				
DESIRED Biking/Walking Route	18-Feb-19	BIKING ONLY	Bike lane would be great!				
CURRENT Biking/Walking Route	27-Feb-19	BIKING ONLY	Biking (Survey)				
DESIRED Biking/Walking Route	17-Dec-18	BOTH	castle park ext.				
Key Destinations	19-Feb-19	BOTH	Castle Park (Steering Committee)				

APPENDIX 2
Survey Results

APPENDIX 4: Survey Results



Toms River Bike Ped Community Survey

We want to improve walking and bicycling in Toms River Township. Please fill out the following survey and accompanying WikiMap to help us understand the walking and cycling environment in Toms River and your thoughts on how to improve it. (Answers will remain confidential)

* 1. How do you primarily commute to work or school? If you use multiple modes, select all that apply?

- Drive alone
- Carpool
- Train (NJ TRANSIT)
- Bus (NJ TRANSIT, Ocean Ride)
- Bike
- Walk
- I use multiple modes to get to work
- Other

* 2. How do you primarily get around Toms River when you are not working or at school? If you use multiple modes, select all that apply?

- Drive
- Bus (NJ TRANSIT, Ocean Ride)
- Bike
- Walk
- I use multiple modes
- Other

1

APPENDIX 4: Survey Results

* 3. How often do you WALK in Toms River to do the following activities:

	Occasional	1-2 days / week	3-5 days / week	Everyday	Do not walk in Toms River
Going to work					
Going to school					
To bus stops / bus park n ride					
Visiting downtown Toms River					
Parks					
Recreational / Exercise					
Dog walking					
Visiting friends / relatives					
Shopping / Errands					
Other:					

Other (please specify)

* 4. Where do you walk in Toms River?

* 5. If you do not walk in Toms River, let us know why? If you do walk in Toms River, what is your biggest concern about walking in Toms River? (Select top three)

- Lack of sidewalks
- Unsafe roads / Speeding vehicles
- Missing curb ramps
- Limited/Inadequate pedestrian crossings
- Personal safety
- No time
- I prefer bicycling
- I prefer driving
- Other
- Where do you bike in Toms River?

* 6. How often do you BIKE in Toms River to do the following activities:

	Occasional	1-2 days / week	3-5 days / week	Everyday	Do not walk in Toms River
Going to work					
Going to school					
To bus stops / bus park n ride					
Visiting downtown Toms River					
Parks					
Recreational / Exercise					
Visiting friends / relatives					
Shopping / Errands					
Other:					

Other: (please specify)

* 7. Where do you walk in Toms River?

* 8. Do you have kids who bike or walk to school?

- Yes
- No

* 9. If you do have children, which streets do they bike or walk? If they do not bike or walk to town, tell us why not?

APPENDIX 4: Survey Results

* 10. What is your biggest concern about bicycling in town? (Select top three)

- ☐ No bicycle facilities
- ☐ Lack of signage
- ☐ Lack of bicycle parking
- ☐ Poor pavement conditions
- ☐ Safety due to high speed/traffic roads
- ☐ Unsafe Highway crossings / intersections
- ☐ Lack of connectivity/bicycle network
- ☐ No concerns
- ☐ Other

* 11. What should Toms River Township prioritize for future Transportation investment? (Select top five priorities)

- ☐ Bicycle education/training
- ☐ Completing the sidewalk network
- ☐ Driver education/training
- ☐ Improved bike/pedestrian connections to transit
- ☐ Improved crossings of major streets
- ☐ Improving / adding street lights
- ☐ Landscaping and shade trees
- ☐ Maintaining road surfaces
- ☐ More seating options / benches
- ☐ On-street bicycle facilities / bicycle lanes
- ☐ Protected off-road bicycle facilities
- ☐ Shared Use Paths separate from motor vehicles
- ☐ Pedestrian and bicycle-friendly downtown
- ☐ Pedestrian education/training
- ☐ Traffic calming along major roads
- ☐ Traffic Safety/Enforcement training
- ☐ Walking and biking connections to major parks and trails
- ☐ Wayfinding signage
- ☐ Other

* 12. Have you already or do you plan to provide input on the project Wikimapping site?

- ○ Yes
- ○ No

* 13. Please share any other comments or recommendations for improving walking or bicycling facilities in Toms River below.

Thank you for taking the time to take part in this survey! Please do not forget to give your input on our interactive WikiMapping site. This will help us identify which areas we should focus on in Toms River.

4

Optional Questions

14. Your Age

- ○ Under 18
- ○ 18-25
- ○ 26-35
- ○ 36-49
- ○ 50-64
- ○ 65 and over

15. What type of Bicyclist do you consider yourself?

- ○ Recreational
- ○ Advanced
- ○ Utilitarian
- ○ Beginner
- ○ I do not bike

16. How are you connected to Toms River? Check all that apply

- ☐ I live here
- ☐ I own a property or business here
- ☐ I am a visitor
- ☐ I work in Toms River (full-time or part-time)

17. How important is to you to improve walking and bicycling in Toms River? Select ONE

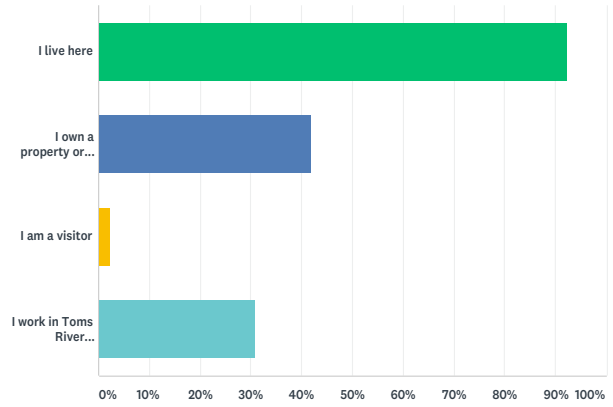
- ○ Very Important
- ○ Somewhat Important
- ○ Not important
- ○ Only improve walking
- ○ Only improve bicycling

5

APPENDIX 4: Survey Results

Q16 How are you connected to Toms River? Check all that apply

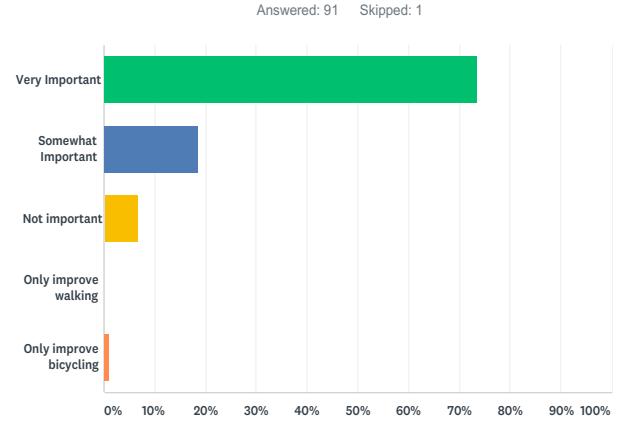
Answered: 91 Skipped: 1



ANSWER CHOICES	RESPONSES	
I live here	92.31%	84
I own a property or business here	41.76%	38
I am a visitor	2.20%	2
I work in Toms River (full-time or part-time)	30.77%	28
Total Respondents: 91		

Q17 How important is to you to improve walking and bicycling in Toms River? Select ONE

Answered: 91 Skipped: 1

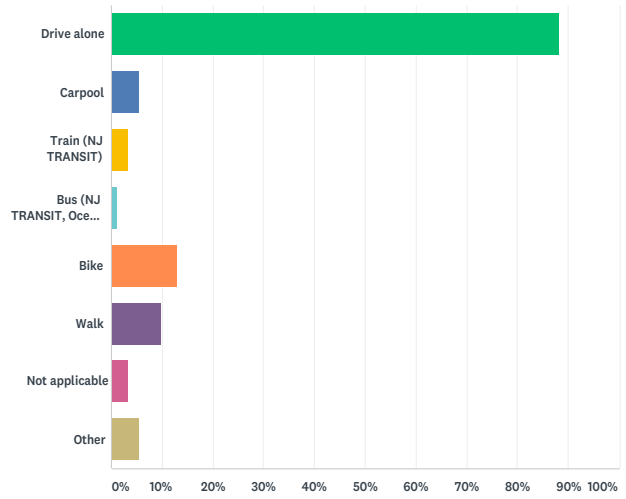


ANSWER CHOICES	RESPONSES	
Very Important	73.63%	67
Somewhat Important	18.68%	17
Not important	6.59%	6
Only improve walking	0.00%	0
Only improve bicycling	1.10%	1
TOTAL		91

APPENDIX 4: Survey Results

Q1 How do you primarily commute to work or school? If you use multiple modes, select all that apply?

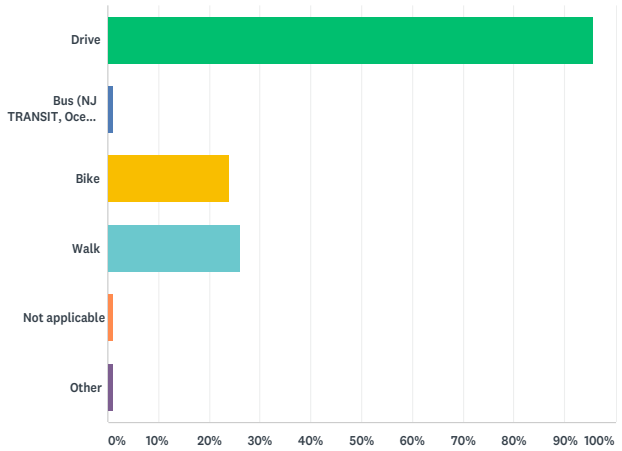
Answered: 92 Skipped: 0



ANSWER CHOICES	RESPONSES	
Drive alone	88.04%	81
Carpool	5.43%	5
Train (NJ TRANSIT)	3.26%	3
Bus (NJ TRANSIT, Ocean Ride)	1.09%	1
Bike	13.04%	12
Walk	9.78%	9
Not applicable	3.26%	3
Other	5.43%	5
Total Respondents: 92		

Q2 How do you primarily get around Toms River when you are not working or at school? If you use multiple modes, select all that apply?

Answered: 92 Skipped: 0

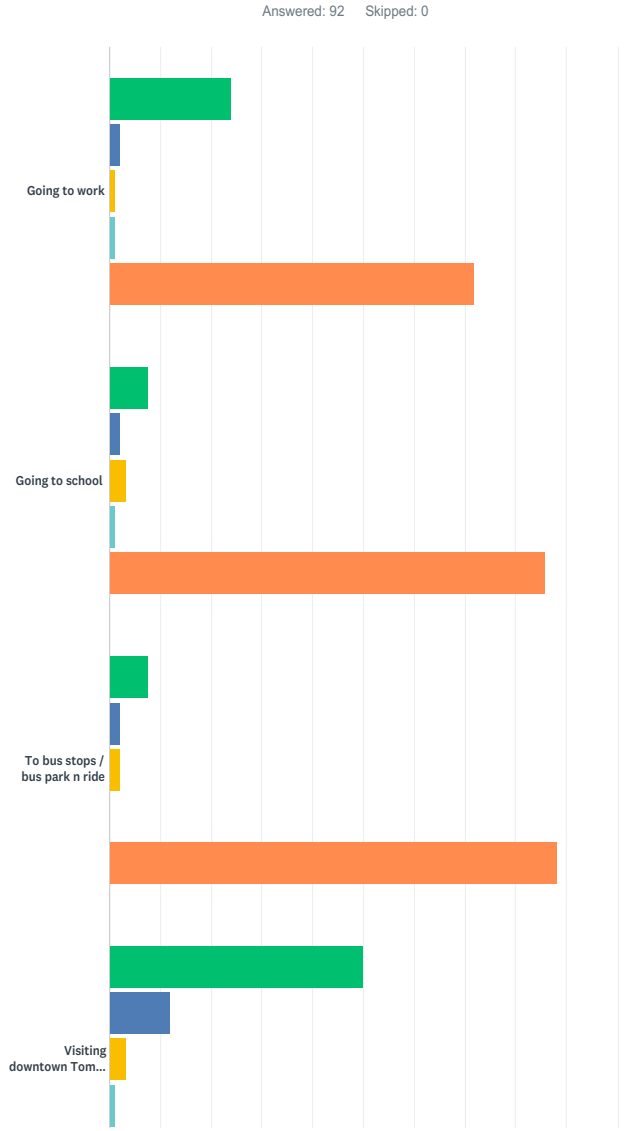


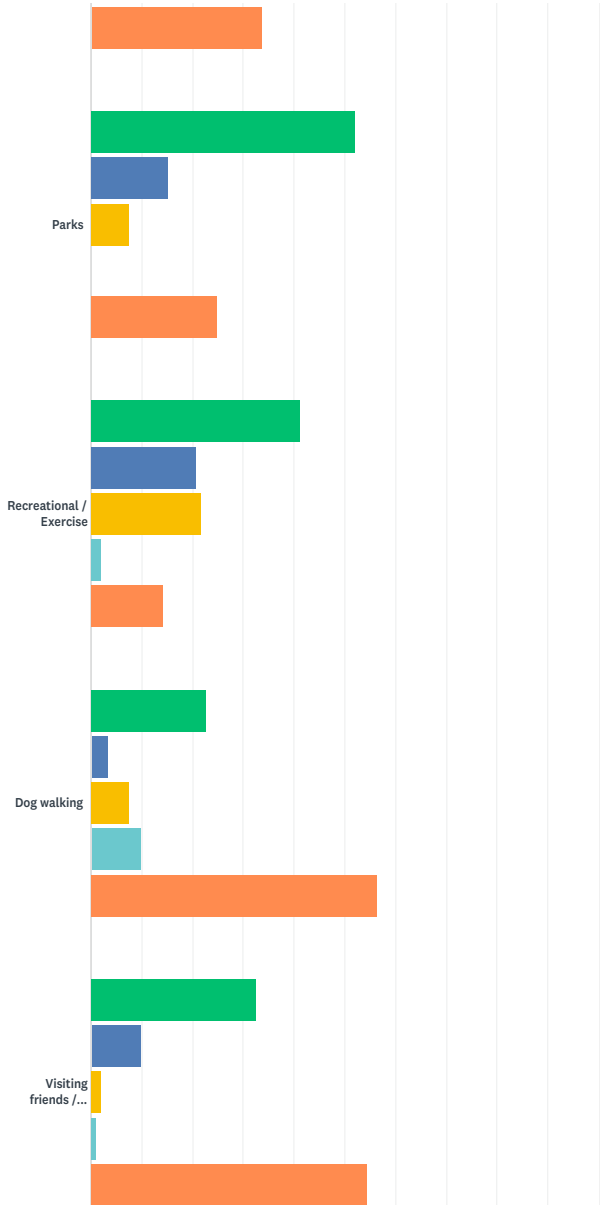
ANSWER CHOICES	RESPONSES	
Drive	95.65%	88
Bus (NJ TRANSIT, Ocean Ride)	1.09%	1
Bike	23.91%	22
Walk	26.09%	24
Not applicable	1.09%	1
Other	1.09%	1
Total Respondents: 92		

APPENDIX 4: Survey Results

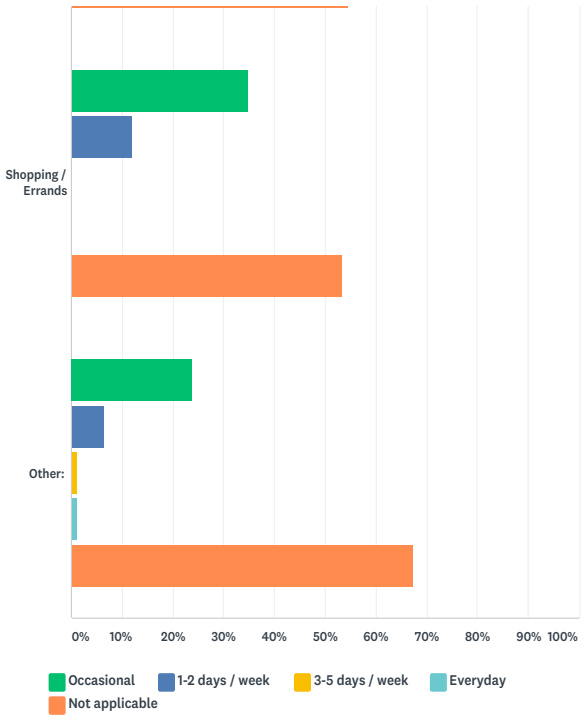
Q3 How often do you WALK in Toms River to do the following activities:

Answered: 92 Skipped: 0





APPENDIX 4: Survey Results



	OCCASIONAL	1-2 DAYS / WEEK	3-5 DAYS / WEEK	EVERYDAY	NOT APPLICABLE	TOTAL
Going to work	23.91% 22	2.17% 2	1.09% 1	1.09% 1	71.74% 66	92
Going to school	7.61% 7	2.17% 2	3.26% 3	1.09% 1	85.87% 79	92
To bus stops / bus park n ride	7.61% 7	2.17% 2	2.17% 2	0.00% 0	88.04% 81	92
Visiting downtown Toms River	50.00% 46	11.96% 11	3.26% 3	1.09% 1	33.70% 31	92
Parks	52.17% 48	15.22% 14	7.61% 7	0.00% 0	25.00% 23	92
Recreational / Exercise	41.30% 38	20.65% 19	21.74% 20	2.17% 2	14.13% 13	92
Dog walking	22.83% 21	3.26% 3	7.61% 7	9.78% 9	56.52% 52	92
Visiting friends / relatives	32.61% 30	9.78% 9	2.17% 2	1.09% 1	54.35% 50	92
Shopping / Errands	34.78% 32	11.96% 11	0.00% 0	0.00% 0	53.26% 49	92
Other:	23.91% 22	6.52% 6	1.09% 1	1.09% 1	67.39% 62	92

Q4 Where do you walk in Toms River?

Answered: 90 Skipped: 2

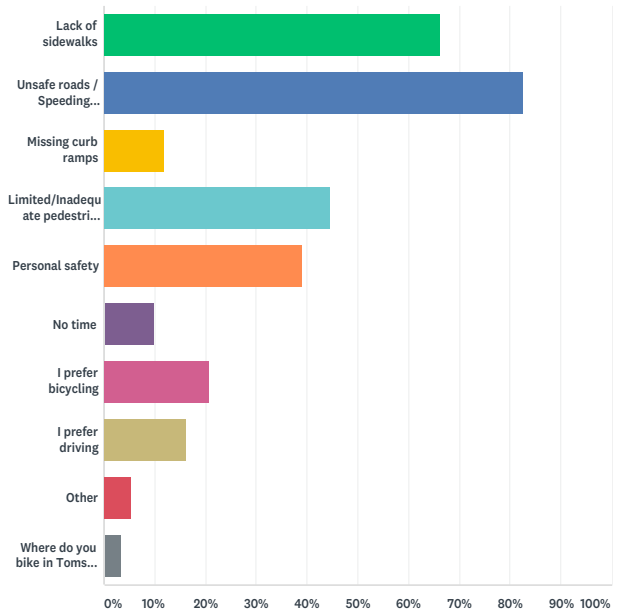
- All over
- Georgetown Area
- not too many places because no sidewalks for my wheelchair
- Neighborhood
- all over
- Town hall, library, doctor, dentist, restaurants, South for football games
- I walk to my car, from my house, TO GO TO WORK...absolutely no one walks unless they have to...please spend more time fixing roads, lights, traffic congestion, over development.
- Bay Ave./Fischer Blvd. area
- On the barrier island
- Parks, by the shore
- In my neighborhood, Cattus Island, Winding River
- I don't
- Downtown, Winding River, Huddy Park
- Winding river, shelter cove, boardwalk, and around my neighborhood
- Down town
- Mostly my neighborhood or once at a park, walking there
- Downtown
- Cattus Island, Huddy Park, Barnegat Branch trail, downtown and I run around Washington street into island heights
- My neighborhood
- Nowhere, I like my life.
- On the sidewalks
- Around Bay Ave and Parks for the kids
- Downtown and neighboring areas
- New Hampshire Ave/Old Freehold/Todd Rd/Church Rd
- beach
- Parks
- To cattus Park.
- Riverwood park, downtown, mall
- To/from the Downtown area and cedar grove areas
- Downtown and around High School North
- For leisure around my neighborhood.
- Fischer Blvd to Bay Ave, to the Bay or to the neighborhoods along Bay. Also walk Hiering to the surrounding neighborhood.
- My neighborhood between Hooper Avenue and Indian Hill Rd
- Mall, Lowes, Nearby Restaurants
- Downtown, Post Office, Five Below
- Parks, Brookside Dr area
- nowhere other than my street
- West Dover
- to my car. Highly unfortunate.
- Cattus Island
- Cattus island
- around the neighborhood
- North Dover
- My office area at lunch
- Downtown, Silverton
- In my development
- Vaughn ave cattus island and downtown mostly
- Silverton
- Forrest Trail Circle neighborhood
- Around the neighborhood for exercise near TR North (Old Freehold Road, Rt 166/9 area); Around Washington St Municiple Complex; Winding River Park
- DOWNTOWN, CATTUS ISLAND PARK, NEIGHBORHOOD
- Winding river
- Gladney's Island Beach
- Cranmore Manor area to downtown & other local neighborhoods
- Winding River Park
- Parks
- North Pointe Hollow
- Parks
- Plaza on hooper ave
- my neighborhood
- Downtown area, between Hooper and Main St, south of Route 37.
- north & east
- Cattus Island (and neighborhoods), Windsor Park neighborhood, Winding River, Land Trust area next to Ocean County College
- Downtown (near library), parks
- The local area surrounding Bay-shore.
- Veterans park/ softball complex

APPENDIX 4: Survey Results

- Rarely but downtown
- Downtown, to the park, to shops and restaurants on rt 9 near my home
- My neighborhood
- Ortley beach
- Downtown, Washington Street, Cranmoor Manor, Brown's Woods, Island Heights, any waterfronts, any parks and playgrounds
- Winding River Park
- Island Heights
- WASHINGTON STREET
- Jakes branch park , softball fields
- Softball fields on North Bay
- Beachwood
- Vaughn ave. Cattus Island park. Skyview Park. Winding River
- Downtown
- Parks, downtown area during warmer months
- Downtown. Very few places are walker friendly
- Downtown area
- Work, shops on main st., water st.,
- cattus island, softball fields off north bay avenue, ocean county college
- Silverton area
- On my own block
- DOWNTOWN
- Cattus Island Park
- Downtown, along Washington Street, to restaurants, offices and the LIbrary. I also walk from the County offices to the Township and DTR offices for meetings.
- Main Street

Q5 If you do not walk in Toms River, let us know why? If you do walk in Toms River, what is your biggest concern about walking in Toms River? (Select top three)

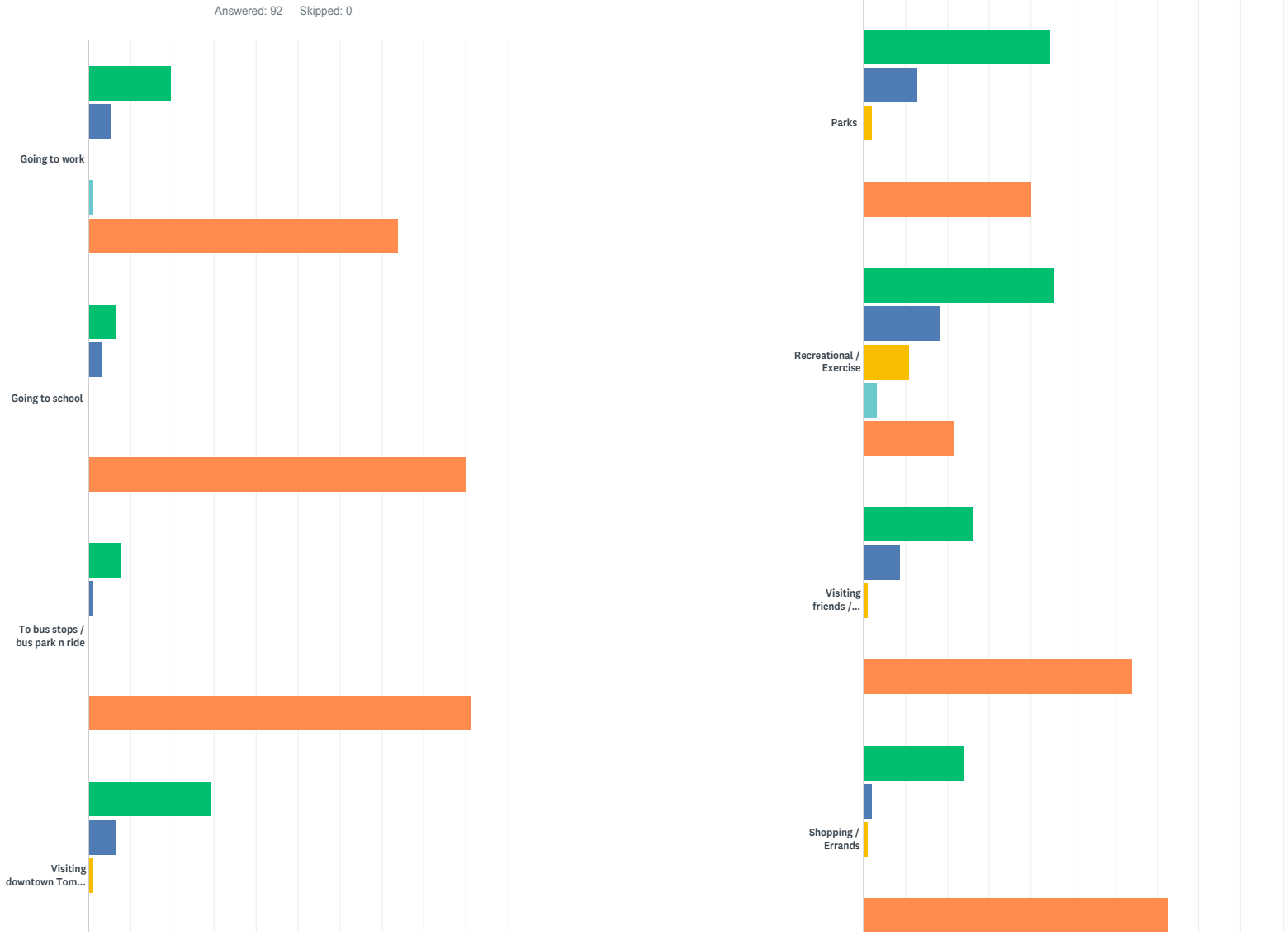
Answered: 92 Skipped: 0



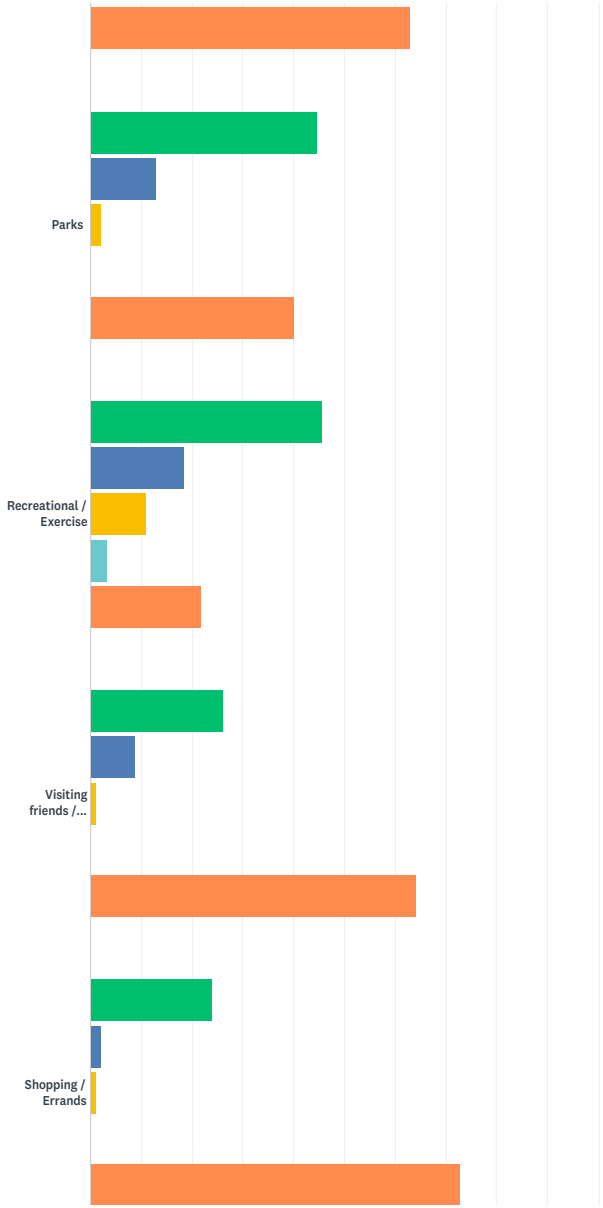
ANSWER CHOICES	RESPONSES	
Lack of sidewalks	66.30%	61
Unsafe roads / Speeding vehicles	82.61%	76
Missing curb ramps	11.96%	11
Limited/Inadequate pedestrian crossings	44.57%	41
Personal safety	39.13%	36
No time	9.78%	9
I prefer bicycling	20.65%	19
I prefer driving	16.30%	15
Other	5.43%	5
Where do you bike in Toms River?	3.26%	3

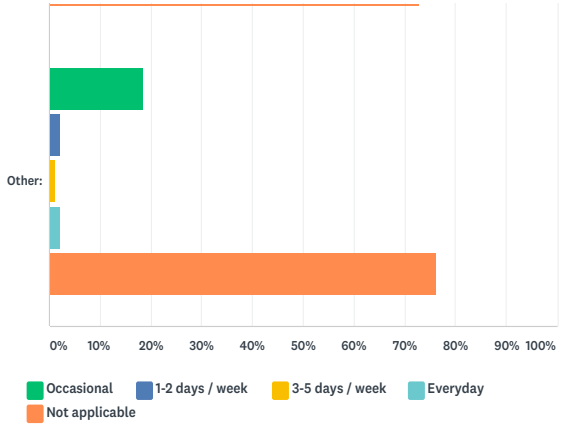
APPENDIX 4: Survey Results

Q6 How often do you BIKE in Toms River to do the following activities:



APPENDIX 4: Survey Results





	OCCASIONAL	1-2 DAYS / WEEK	3-5 DAYS / WEEK	EVERYDAY	NOT APPLICABLE	TOTAL
Going to work	19.57% 18	5.43% 5	0.00% 0	1.09% 1	73.91% 68	92
Going to school	6.52% 6	3.26% 3	0.00% 0	0.00% 0	90.22% 83	92
To bus stops / bus park n ride	7.61% 7	1.09% 1	0.00% 0	0.00% 0	91.30% 84	92
Visiting downtown Toms River	29.35% 27	6.52% 6	1.09% 1	0.00% 0	63.04% 58	92
Parks	44.57% 41	13.04% 12	2.17% 2	0.00% 0	40.22% 37	92
Recreational / Exercise	45.65% 42	18.48% 17	10.87% 10	3.26% 3	21.74% 20	92
Visiting friends / relatives	26.09% 24	8.70% 8	1.09% 1	0.00% 0	64.13% 59	92
Shopping / Errands	23.91% 22	2.17% 2	1.09% 1	0.00% 0	72.83% 67	92
Other:	18.48% 17	2.17% 2	1.09% 1	2.17% 2	76.09% 70	92

APPENDIX 4: Survey Results

Q7 Where do you bike in Toms River?

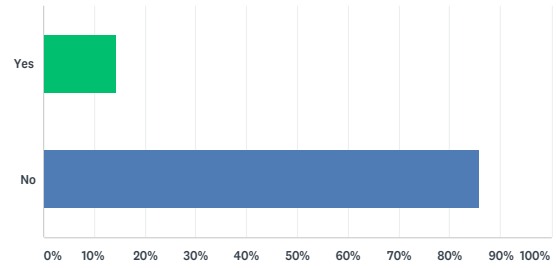
Answered: 90 Skipped: 2

- Hard to find places, mostly side streets
- Island Beach State park
- Neighborhood
- Silverton
- Around my neighborhood
- On the barrier island
- Everywhere
- My neighborhood
- My neighborhood
- Winding River, Ortley Beach
- On local roads
- I dont
- Neighborhood or to Winding River
- East end
- Downtown and ortley
- I don't - I take my car to Island Heights and bike there
- Nowhere
- North side of town.
- Around Bay Ave and in the East area.
- Downtown area and neighboring areas
- in the woods
- Parks, along riverfront
- Cattus island park. strip malls on Fischer Blvd. Toms River High School east
- I do not bike in TR.
- To/from downtown to the cedar grove area, cedar grove area to/from Cattus Island area.
- Downtown
- Around my neighborhood for recreation
- In my neighborhood along Fischer Blvd. to Bay Ave to the Bay. Also in the surrounding neighborhood.
- Off Hooper Avenue, Cattus Island Park, Winding River Park, Freedom Park off Indian Hill, Skyview Park
- All over where I feel safe including Island Heights.
- I don't have a bike
- Winding River Park-anywhere else seems dangerous
- At the park or on my street
- All over
- MAYBE around the block but cars speed constantly. They are aloud to speed. Police will not enforce the speed limit in residential neighborhoods.
- Parks and through the Twin Oaks neighborhood
- Green island
- around the neighborhood
- washington ave
- I don't
- I do not bike at all.
- Silverton
- I don't
- Most roads
- Silverton
- TR is tough...no shoulders...speeds very high
- Do not bike.
- CATTUS ISLAND PARK
- Oak ride area
- Gladney's Island Beach
- Thru downtown then along towns on both sides of the river
- Winding River Park
- I don't. Not safe
- Winding River Park, Barnegat Branch Trail
- Parks
- Around the neighborhood
- my neighborhood
- Between Downtown and Gilford Park / Island Heights
- i don't
- Do not
- Parks, my neighborhood
- Same as Q4. But if mean Bike. Through Downtown heading through S.Toms River to Berkley.
- No where in particular
- Na
- I bike in my neighborhood (Weatherly)
- My neighborhood
- Downtown
- Schools, Grocery, Downtown, Pools, Waterfronts, Golf course
- Winding river Park
- Island Heights boardwalk or Cattus island park
- washington street
- I don't bike
- Only bike around my neighborhood
- Ortley
- Downtown and at the parks
- Downtown
- Isn't this about biking???
- Downtown
- downtown
- See question #4.
- cattus island, ocean county college, winding river park
- Silverton neighborhood
- On my block
- DOWNTOWN
- Cattus Island Park
- Downtown
- Downtown

APPENDIX 4: Survey Results

Q8 Do you have kids who bike or walk to school?

Answered: 91 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	14.29%	13
No	85.71%	78
TOTAL		91

Q9 If you do have children, which streets do they bike or walk? If they do not bike or walk to town, tell us why not?

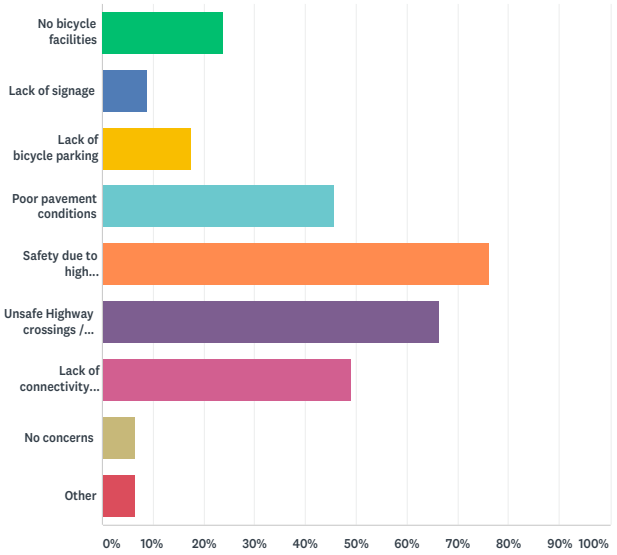
Answered: 74 Skipped: 18

- Shenandoah blvd
- Too many cars
- SILVERBAY RD
- Clinton, Hadley, Madison, and Hooper Ave.
- Dave Marion, McCormick, Brookside
- To much traffic and no where to lock up bike
- We don't live close enough to their school
- Fairview area
- No
- They drive to work
- On my street. We live right off of Bay and there are not adequate sidewalks to get off our street. We live on St. Joseph Place and are land locked.
- Washington st
- Sheila, hazelwood, Vaughn, bay, Dunedin, raider way
- No children
- Traffic, lack of bike lanes/bike friendly streets
- They're very young
- not safe
- I do not allow my 13, 11 and 8 year old who are VERY capable bike riders ride in our neighborhood. I live on a 25mph with cars that routinely drive over 40mph. Ocean View Drive. This is also a walking route to school. No sidewalks.
- it is unsafe for a child to walk along vaughn ave
- No children
- Silverton neighborhood areas
- Its not safe
- Too young
- Kids Grown
- I have small children, riding their bikes on all but the most remote neighborhood streets is dangerous with the speed and careless driving of many drivers.
- GARFIELD AVENUE
- None
- I do not have children.
- Lack of sidewalks
- Grown
- No children yet
- Unsafe, too many major roads
- Silver bay and sand creek
- no children
- Too young
- again ... i don't
- No biking for him
- Hyers st. Is a disaster in the early morning and when sloth lets out. Kids go waaaaay to fast. Please have someone look into this before a kid dies
- It is too far and unsafe for my kids to bike or walk to their schools
- Brokaw Blvd and Hooper Avenue to walk to Intermediate East
- Side streets - we avoid washington street and other main streets because they are very busy, too fast, drivers not following pedestrian and school crossing laws
- We live on the other side of highway
- They're in college
- Kettle creek
- Not safe outside our neighborhood
- Neighborhood
- Vaughn ave..Quartz road
- Not applicable
- Local neighborhood
- Places are too far away. No sidewalks.
- It's not safe to bike. My child walks downtown during lunch and after school to the library regularly. She feels safe and enjoys the exercise.
- Unsafe conditions
- Church Rd, Silverton Rd and through Holiday City Silverton
- Unsafe roads and sidewalks, few areas to cross
- Bussed to school
- My daughter does not like to bike, and she is so busy with activities.

APPENDIX 4: Survey Results

Q10 What is your biggest concern about bicycling in town? (Select top three)

Answered: 92 Skipped: 0

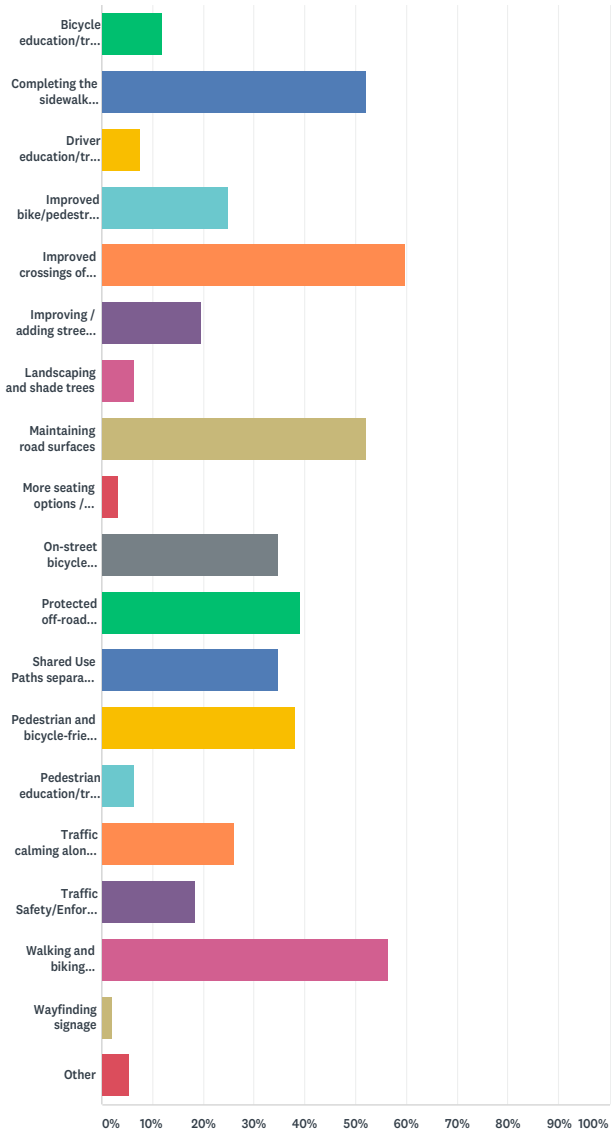


ANSWER CHOICES	RESPONSES	
No bicycle facilities	23.91%	22
Lack of signage	8.70%	8
Lack of bicycle parking	17.39%	16
Poor pavement conditions	45.65%	42
Safety due to high speed/traffic roads	76.09%	70
Unsafe Highway crossings / intersections	66.30%	61
Lack of connectivity/bicycle network	48.91%	45
No concerns	6.52%	6
Other	6.52%	6
Total Respondents: 92		

Q11 What should Toms River Township prioritize for future Transportation investment? (Select top five priorities)

Answered: 92 Skipped: 0

Toms River Bike Ped Community Survey SurveyMonkey

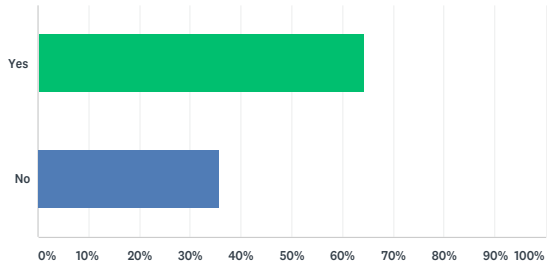


APPENDIX 4: Survey Results

Toms River Bike Ped Community Survey		SurveyMonkey
Bicycle education/training	11.96%	11
Completing the sidewalk network	52.17%	48
Driver education/training	7.61%	7
Improved bike/pedestrian connections to transit	25.00%	23
Improved crossings of major streets	59.78%	55
Improving / adding street lights	19.57%	18
Landscaping and shade trees	6.52%	6
Maintaining road surfaces	52.17%	48
More seating options / benches	3.26%	3
On-street bicycle facilities / bicycle lanes	34.78%	32
Protected off-road bicycle facilities	39.13%	36
Shared Use Paths separate from motor vehicles	34.78%	32
Pedestrian and bicycle-friendly downtown	38.04%	35
Pedestrian education/training	6.52%	6
Traffic calming along major roads	26.09%	24
Traffic Safety/Enforcement training	18.48%	17
Walking and biking connections to major parks and trails	56.52%	52
Wayfinding signage	2.17%	2
Other	5.43%	5
Total Respondents: 92		

Q12 Have you already or do you plan to provide input on the project Wikimapping site?

Answered: 92 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	64.13%	59
No	35.87%	33
TOTAL		92

APPENDIX 4: Survey Results

Toms River Bike Ped Community Survey SurveyMonkey

Q13 Please share any other comments or recommendations for improving walking or bicycling facilities in Toms River below.

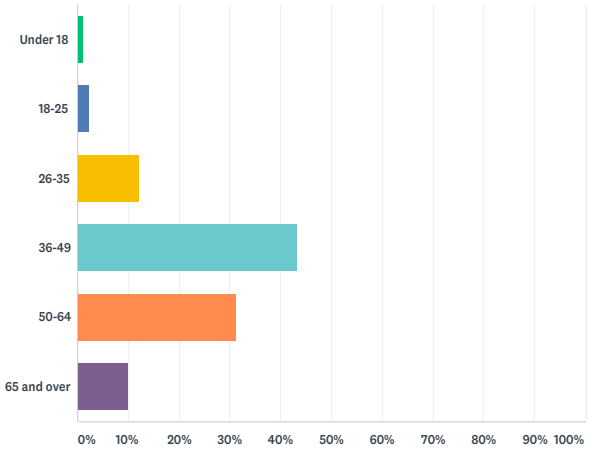
Answered: 67 Skipped: 25

- Any bike paths would be a huge help, almost no safe place to bike in Toms River
- Take into consideration wheelchair/crossing Route 37
- no
- Better maintenance of road surfaces in walking and biking lanes and paths
- One way traffic down town
- Toms River has changed for the worst in 30 years and you're worried about bikes. Stop building and renting to lowlifes. TR is now officially a s*** hole.
- BIKE SHARING!
- More sidewalks would be great. There is no reason our children should not have a safe way to go about the neighborhood.
- The sidewalks on Old Freehold & New Hampshire are a mess. Overgrown trees & debris make it difficult to use the sidewalks forcing you to walk in the road. Church Road needs sidewalks
- Improve not just the sidewalk network but better lighting in high traffic areas.
- Looking forward to a trail along the water; you are taking safety into account, right? Closing the hotel helped rid downtown of shady characters, but we still need vigilance.
- Really need sidewalks for walking. This is a major concern in Toms River. Also would really like to bicycle over to Seaside. Maybe Ocean Ride would have facility to transport bicycles.
- Clearer marked and controlled intersections on major arteries, i.e. Fischer, Hooper, Oak Ridge, Bay Ave, Rte 37
- On question #11 I could have checked all the boxes.
- Please improve pedestrian crossings over Rt. 37 & make a walk-able way to Island Beach State Park.
- Check out Hilton Head Islands walking and biking map, it is outstanding.
- sidewalks nonexistent Lakehurst Road just west of parkway
- Bike lanes. Focus on traffic calming in residential neighborhoods. Law enforcement is very unconverned. Start a campaign against speeding in residential neighorhoods and enforce it, especially in neighborhoods without sidewalks and that ALSO are walking routes to school. Its not 1980 anymore. Quality of life is continuing to decline in TOMS RIVER. Its not getting better. We must start making it better. We need all of our efforts focused on the things that make LIVING here better. Parks are run down and have not been developed outside of swingsets in years. Law enforcement complains they have other things to do. They create a place where we all KEEP our families indoors. Its less hassle for them. Not better for the families of Toms River. AND HOW about a skate park we can walk/ride to?? Why does that not exist in a town of nearly 100,000 people? GET WITH THE TIMES TOMS RIVER! Stop NOT CARING. Everyone in this town has 5-10 year plan to run away. That is sad.
- Toms River is in dire need of biking and walking improvements. It is also in need of beautification. Route 37, the gateway to the shore, is a disgrace.
- No thank you.
- Why is this just for downtown?! Why not by mall.
- Need bike lanes especially downtown
- Please complete safe pedestrian trail from Silverton to Ocean County College.
- no shoulders in TR...any time they need a lane they take away shoulder
- When I go out walking for exercise, I have to plan my routes carefully. In many cases, there are no sidewalks or large stretches without them. Too many people speeding, driving on shoulders, texting, running stop-signs that when I do have to cross those areas, I feel quite unsafe.
- #1 SIDEWALKS TO ALL SCHOOLS FROM NEIGHBORHOOD.
- Mountain bike trails would be awesome
- Most roads are only accomodating for cara. Pedestrians and cyclists are left out in the cold.
- A bike station (seen in many parks) to secure your bike for emergency repairs. They have a few basic tools attached to the stand also. Many bike shops sponsor and maintain these.
- None
- Great addition
- Bike/recreational paths separate from the road would jet more people bike in Toms River. For example extending the Barnegat Branch Trail north go route 79 and West to Lakehurst. Adding more parks along Route 70 would give people more reasons to bike places as WellPoint. A dog park is also sorely needed in the North Dover section of town.
- Most places too far to walk or bike.
- sidewalks are needed through town
- Generally, the major concerns are with lack of dedicated piking paths or vehicular traffic using the shoulder for turning / passing lanes. There are several areas I encounter on my typical bikeride that are very dangerous to navigate. It's at the point my wife will no longer ride with me due to the safety risk.
- driving's more important
-
- More designated trails would be great.
- With 25 years of cycling experience in Toms River, the single biggest improvement any township can make is the simplest and cheapest, appears to be the most difficult. Having developers clean up after their road work. The loads of dropped stone, broken glass, lose gravel, sand, road hazards contribute to the problem.
-
- I see many people using bikes to get around but not all of them have reflectors or wear bright clothing at night. That combined with poor road sharing among drivers has probably caused many accidents or near accidents.
- Dedicated bike lanes and more sidewalks
- With the proper highway modifications TR would be a great place for families to ride
- make a user friendly space and people will use it!
- None
- Park like bicycle/walking paths would be greatly enjoyable away from car traffic
- Connect up the linear Barnegat trail from Toms River to oyster Creek and beyond. Ww nwwd a GOOD LINEAR TRAIL THROUGHOUT THE COUNTY
- A connected walking path like Lacey has would be nice
- Need sidewalks all along hooper and other major roads so you could ride a bike safely
- Pave the roads
- People need to slow down on our roads
- Install bike lanes
- None
- We live in North Dover and places are too far away to realistically walk too.
- Bike lanes and signage downtown would be a HUGE improvement.
- Lots of cars speeding on side streets to avoid traffic. Also enforce driving while texting laws.
- If you could mark the shoulder along Church Rd as a bike path to alter motorists which would safely allow bicyclists to get to the strip malls on either end and also be able to enjoy the scenic setting of Ocean County College and the surrounding preserved land.
- It would be nice to feel safe on the roads. I ride many miles each year and Toms River is one of the worst towns to ride through, particularly the Silverton area. There are area in TR that have very small or no shoulders at all. I also see many cyclists exhibit poor behavior (i.e. riding against traffic or riding on sidewalks.) An inexpensive public service campaign could go a long way to preventing tragedies such as accidents.
- I would love to see walking/bicycling paths throughout Toms River.
- I walk down Highland Parkway too many overgrown tree's bushes in the way I complained once and a very poor job was done. Many people at 91 highland have the same program and we feel NO one cares about us.
- Bikes on boardwalks would be nice. Ocean city NJ used to allow them in early mornings.
- There needs to be safe linkages for biking and walking, including widening the road shoulder.

APPENDIX 4: Survey Results

Q14 Your Age

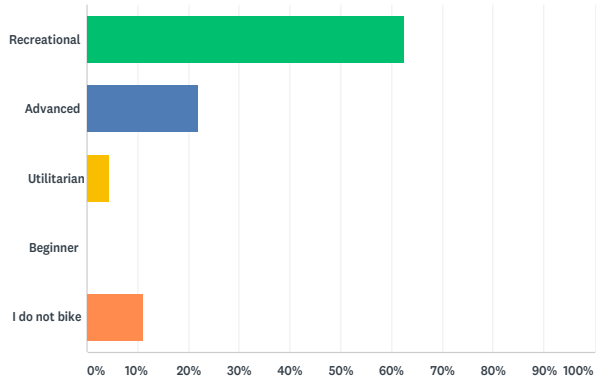
Answered: 90 Skipped: 2



ANSWER CHOICES	RESPONSES	
Under 18	1.11%	1
18-25	2.22%	2
26-35	12.22%	11
36-49	43.33%	39
50-64	31.11%	28
65 and over	10.00%	9
TOTAL		90

Q15 What type of Bicyclist do you consider yourself?

Answered: 91 Skipped: 1



ANSWER CHOICES	RESPONSES	
Recreational	62.64%	57
Advanced	21.98%	20
Utilitarian	4.40%	4
Beginner	0.00%	0
I do not bike	10.99%	10
TOTAL		91

APPENDIX 5: Outreach

Toms River Bike Ped Community Survey		SurveyMonkey
Bicycle education/training	11.96%	11
Completing the sidewalk network	52.17%	48
Driver education/training	7.61%	7
Improved bike/pedestrian connections to transit	25.00%	23
Improved crossings of major streets	59.78%	55
Improving / adding street lights	19.57%	18
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Maintaining road surfaces	52.17%	48
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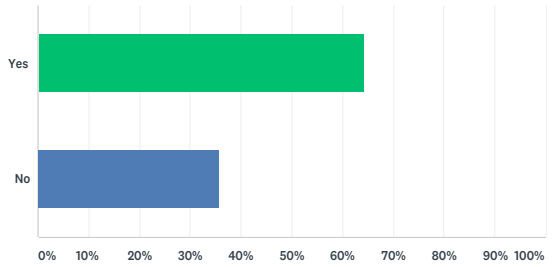


ANSWER CHOICES	RESPONSES	
Yes	64.13%	59
No	35.87%	33
TOTAL		92

APPENDIX 3
Resource Inventory

APPENDIX 2: Resource Inventory

Source	*Title*	Date	Type	Link	Available PDF	Notes
Toms River/ Township of Dover	***Master Plan***	2006	Master Plan	http://tomsrivertownship.com/component/rsfiles/download?path=EngineeringCommunityDev%2FMaster-Plan.pdf	Master Plan	
Toms River Township	***REDEVELOPMENT PLAN for Phase 1 Downtown Waterfront Redevelopment Area***	2017	Redevelopment Plan	http://tomsrivertownship.com/downloads/DowntownRedevelopment/Waterfront-Phase-1-Redevelopment-Plan-10-6-17.pdf	P1 Downtown Waterfront Redevelopment Plan	Incorporated into the Toms River Twp 2017 MP
Toms River Township	***Transit Village Model Rendering***	*2017*	Rendering	http://tomsrivertownship.com/downloads/DowntownRedevelopment/Transit-Village-Model-Rendering.pdf	Transit Village Model Rendering	Part of Redevelopment Plan
Toms River Township	***Downtown Toms River Waterfront Redevelopment- Phase 1 Model w Transit Village***	2017	Video Rendering	http://tomsrivertownship.com/downloads/DowntownRedevelopment/Downtown-Toms-River-Waterfront-Redevelopment-Phase-1-Model-wTransit-Village.mp4		Part of Redevelopment Plan
Toms River Township	***Downtown Toms River Waterfront Redevelopment- Phase 1 Water Street Revelopment Model***	2017	Model	http://tomsrivertownship.com/downloads/DowntownRedevelopment/Water-Street-Waterfront-Redevelopment-Phase-1-Plan-V1-Model.pdf	Water St Redevelopment Model	Part of Redevelopment Plan
Toms River Township	***Master Plan Elements Adopted in 2017***	2017				
	Periodic Reexamination Report and Land Use Plan Update- Part 1			http://tomsrivertownship.com/downloads/MasterPlan/REEXAMINATION-REPORT-2017-UPDATE-01.26.17.pdf	Periodic Reexam and LU Plan Update	
	Housing Element and Fair Share Plan			http://tomsrivertownship.com/downloads/MasterPlan/AMENDED-HEFSP-Final-02-03-17-With-Appendices.pdf	Amended Housing Element and Fair Share Plan	
	Conservation, Recreation, and Open Space Element	2016		http://tomsrivertownship.com/downloads/MasterPlan/Conservation-Recreation-and-OS-element-03-03-17.pdf	Conservation, Recreation, and Open Space Element	
	Utilities Services Plan Element	2016		http://tomsrivertownship.com/downloads/MasterPlan/UTILITY-SERVICE-ELEMENT-2016-draft.pdf	Utilities Services Element	
	Community Facilities Element	2016		http://tomsrivertownship.com/downloads/MasterPlan/COMMUNITY-FACILITIES-2016-MasterPlan-Element.pdf	Community Facilities Element	
	Land Use Element	2017		http://tomsrivertownship.com/downloads/MasterPlan/LAND-USE-ELEMENT-Adopted-04-19-17.pdf	Land Use Element	
	Reexamination Report Part 2	2017		http://tomsrivertownship.com/downloads/MasterPlan/REEXAMINATION-REPORT-2017-UPDATE-PART2-LAND-USE-ELEMENT-Adopted-04-19-2017.pdf	Reexam Report Part 2	
	Circulation Plan Element	2016		http://tomsrivertownship.com/downloads/MasterPlan/Circulation-Element-2016-adopted-04-09-17.pdf	Circulation Element	
	Toms River Historic Preservation Element	2017		http://tomsrivertownship.com/downloads/MasterPlan/2017-Toms-River-Historic-Preservation-Element-Adopted-May-17-2017.pdf	Historic Preservation Element	
	Economic Plan Element	2017		http://tomsrivertownship.com/downloads/MasterPlan/2017-ECONOMIC-PLAN-ELEMENT-Adopted-05-17-2017.pdf	Economic Plan Element	
	Arts and Culture Element	2017		http://tomsrivertownship.com/downloads/MasterPlan/Arts-and-Culture-Master-Plan-Element-ADOPTED-May-17-2017.pdf	Arts and Culture Element	

APPENDIX 2: Resource Inventory

	MPAP Template Final	2017		http://tomsrivertownship.com/downloads/MasterPlan/MPAP-Template-Final-120415-Adopted-by-PBd-5-17-17.pdf	Municipal Public Access Plan	
Ocean County Parks and Recreation	***Ocean County Bicycle and Pedestrian Linkages from the Barnegat Branch Trail, Northern Section***	Currently underway	Project Website	https://bbtconnections.com/		Ocean County and the North Jersey Transportation Planning Authority are working together to conduct a study of walking and biking paths that could connect the Barnegat Branch Trail with local destinations, such as schools, parks, libraries, and local businesses. The study will result in a plan that will help provide safe and healthy travel alternatives and encourage increased walking and biking, while prompting economic growth in an environmentally friendly way.
Toms River	***Zoning Map***	2017	Map	http://tomsrivertownship.com/downloads/MasterPlan/30x42-Zoning-Map.pdf	Zoning Map	
App.	***"Toms River could see 6 big changes under new master plan"***	2017	Article	https://www.app.com/story/news/local/redevelopment/2017/08/16/6-rezoning-proposals-toms-rivers-master-plan/571909001/		
App.	***Toms River downtown: Taller buildings, apartments, stores under plan***	2018	Article	https://www.app.com/story/news/local/redevelopment/2018/02/12/toms-river-downtown-plan-taller-buildings-apartments-stores-restaurants/313216002/		
App.	***10 rezoning suggestions in Toms River master plan***	2017	Article	https://www.app.com/story/news/local/redevelopment/2017/05/26/10-rezoning-suggestions-toms-river-master-plan/346759001/		
NJDOT	***POSTPONED Route 166 lane and ramp closures required for improvements project in Toms River***	2017	News Release	https://www.state.nj.us/transportation/about/press/2017/111417.shtm		This project includes drainage improvements, utility work, and milling and paving to permit widening of this portion of Route 166.
Ocean County	***Ocean County General Contract***		Website	http://www.co.ocean.nj.us/OC/Engineering/frmRegContentENG.aspx?ID=150B6127-5A18-4056-B3E2-CBA9B27474A9		RECONSTRUCTION AND RESURFACING OF PORTIONS OF CERTAIN COUNTY ROADS, CONTRACT 2016B Cox Cro Road (S.H. Route 9 to Whitesville Road), Toms River Township Fischer Boulevard (Bay Avenue to Shore Boulevard), Toms River Township Whitesville Road/Ridgeway Road (Commonwealth Blvd. to Leawood Ave.), Manchester Township and Toms River Township Church Road (S.H. Route 9 to North Bay Avenue), Toms River Township STORMWATER MANAGEMENT CONTRACT 2017A Toms River Township

APPENDIX 2: Resource Inventory

NJDOT	***American Recovery and Reinvestment Act Design Projects***			https://www.nj.gov/recovery/infrastructure/NJDOT%20ARRA%20Project%20List.pdf	American Recovery and Reinvesment Ac- TR Design Projects Route 35 Restoration	
Downtown Toms River	***Visions for the Future***		Website	http://www.downtowntomsriver.com/bid/visions.htm		Business Improvement District Website
Toms River BID	***Toms River Downtown Master Plan***		Report	http://www.downtowntomsriver.com/bid/0docs/masterplan.pdf	Downtown Master Plan	
	PowerPoint presentation *regarding the plan*		PPT		Master Plan PPT	
Edward J. Bloustein School	***Revitilization Strategy (Bloustein School Design Studio)***	2004	Report	http://www.downtowntomsriver.com/bid/0docs/bloustein.pdf	Reclaiming Toms River's Waterfront	
Edward J. Bloustein School	***PowerPoint presentation*** *regarding the studio*		PPT			
Project for Public Spaces	***Streets for People", Pedestrian Workshop Summary***	2008	Report	http://www.downtowntomsriver.com/bid/0docs/ped_vision_pps.pdf	Streets for People- Ped Workshop Summary	
Toms River Township	***Redevelopment Area Study for the Downtown Toms River, Waterfront Area***	2009	Report	http://www.downtowntomsriver.com/bid/0docs/tr_redev_sept09.pdf	Waterfront Revelopment Plan	
Edward J. Bloustein School	***Toms River Waterfront Vision Plan***	2013	Report	http://bloustein.rutgers.edu/wp-content/uploads/2015/02/Toms-River-Waterfront-Vision-Plan-FINAL.pdf	Toms River Waterfront Vision Plan	
Toms River/ Township of Dover	***Downtown Toms River***	2003	Map	http://www.downtowntomsriver.com/bid/docs/tomsriverbid.pdf	Downtown Toms River BID Map	
			Map	http://www.downtowntomsriver.com/bid/bidmap.htm	Downtown Map	
Ocean County	***Ocean County Master Plan***	2011	Master Plan	http://www.planning.co.ocean.nj.us/frmSROceanCountyComprehensiveMasterPlan	Ocean County Master Plan	
Ocean County	***Ocean County Transportation Model 2017 Model Update***	January 2018 Amendment	County Master Plan	http://www.co.ocean.nj.us//WebContentFiles//f77d225c-5941-4437-8f55-66bcf5245e15.pdf	Ocean County Transporation Model Update	
Ocean County	***Functional Roadway Map for Ocean County***	January 2018 Amendment	County Master Plan	http://www.co.ocean.nj.us//WebContentFiles//f77d225c-5941-4437-8f55-66bcf5245e15.pdf		Link Removed
Ocean County	***County Road Right of Way Widths***	January 2018 Amendment	County Master Plan	http://www.co.ocean.nj.us//WebContentFiles//f77d225c-5941-4437-8f55-66bcf5245e15.pdf		Link Removed
Ocean County	***New Required ROW Widths***	September 19, 2018 Amendment	County Master Plan	http://www.co.ocean.nj.us//WebContentFiles//63028fdc-bb47-4661-8aeb-dae73384451b.pdf	Ocean County New ROW widths	This update includes new required ROW widths for certain County roads in Jackson and Lakewood Townships per the Ocean County Transportation Model

APPENDIX 4

Environmental Screening: Shared-use Path Segments

Appendix 2:

Environmental Screening Summary: Shared Use Path Segments

An environmental constraints screening summary was conducted for the initial preliminary bicycle and pedestrian network identified based on the existing conditions analysis, field visits, Steering Committee input, community survey, Wikimapping and public workshops.

The preliminary screening focused only on the Shared Use Path segments as only those segments require construction efforts. The entire project lies within Coastal Area Facility Review Act (CAFRA) jurisdiction.

The following is a list of segments recommended as shared use paths:

- Segment 1: Robert Moses Path/ N. Maple Ave
- Segment 2: Slab Branch Path
- Segment 3: Church Road (between Route 9 & Hooper Ave)
- Segment 4: Hooper Avenue (Church Rd & Municipal O.S Path)
- Segment 5: Municipal Open Space Path
- Segment 6: Utility R.O.W.
- Segment 7: Route 9 (between Clayton Ave & Whitty Rd)
- Segment 8: CR 571 (between Oak Ridge Pkwy and N. Bay Ave)
- Segment 9: Oak Ave (between N. Bay Ave & Freedom Park Path)
- Segment 10: Cattus Island Path
- Segment 11: Goose Creek Path
- Segment 12: Route 37 (between Brookside Dr & Law Rd)
- Segment 13: Route 37 (between King St & Hooper Ave)
- Segment 14: Highland Parkway (between W. Water St & Main Street)
- Segment 15: Winding River Trail

The entire project lies within Coastal Area Facility Review Act (CAFRA) jurisdiction. This screening is based on the available data on NJDEP GeoWeb mapping and other map sources and does not reflect field conditions.

Segment 1: Robert Moses Path/ N. Maple Ave

Historic fill is not mapped in the project area. One Known Contaminated Site (KCS) is located along N. Maple Avenue near the intersection of Crystal Mile Court. Groundwater contaminations - Currently Known Extent (CKE) are generally located north of N. Maple Avenue from Route 9 to New Hampshire Ave.

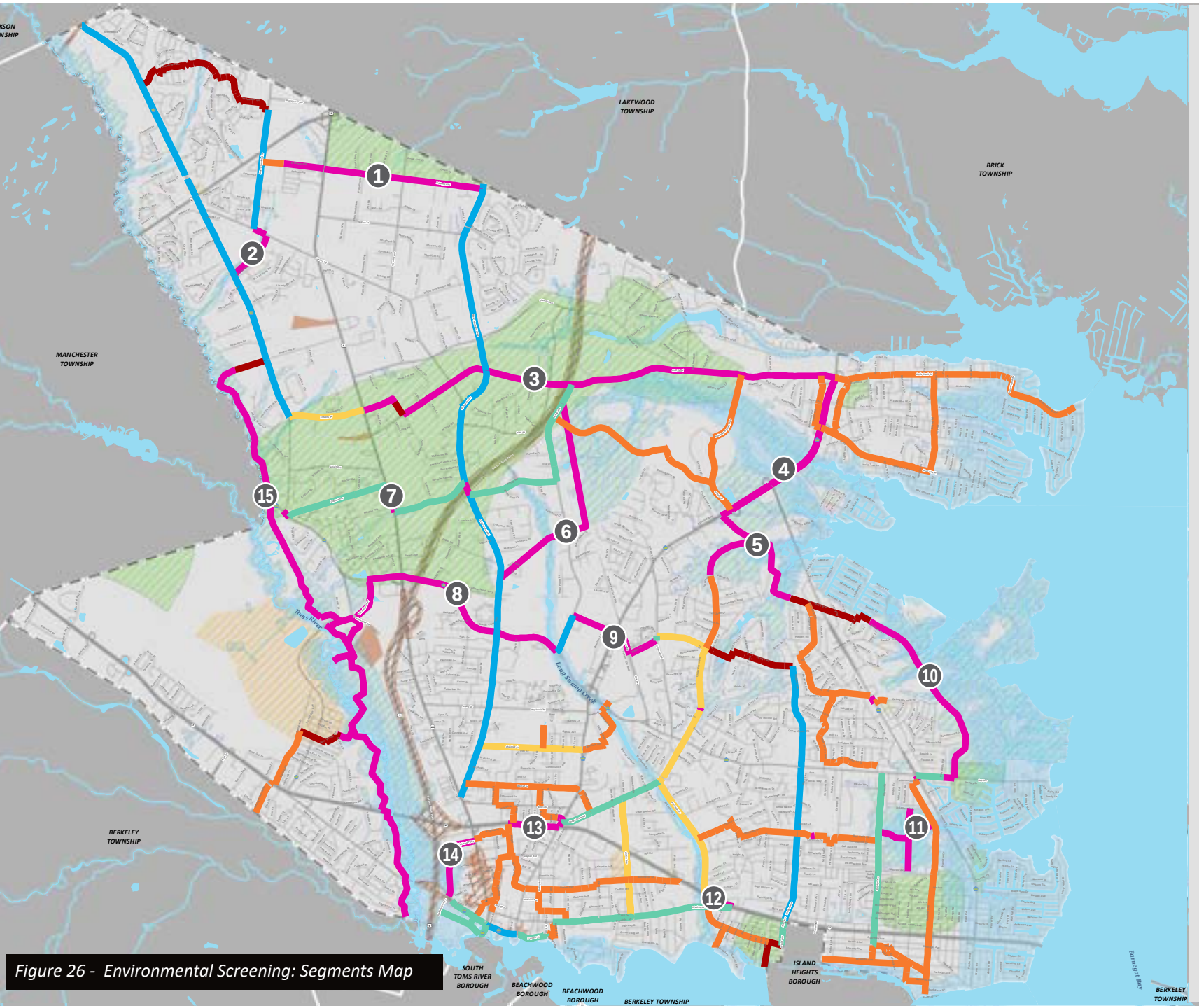
Wetlands are located at the northwest and southwest quadrants of the Route 9/ N. Maple Avenue Intersection. Rank 1 – Habitat Specific Requirements and Rank 2 – Special Concern habitat are located within wetland area and Rank 2 habitat is located at the Route 84/ Route 623 intersection.

It appears trees may be impacted at various sections of the proposed path, primarily at the eastern extent near Roberts Lane. Sidewalks exist in many of these areas.

Segment 2: Slab Branch Path

KCS and groundwater contamination are not known to exist. Historic fill is not mapped in the project area.

The path parallels Slab Branch (stream), which is designated as a FW2-TMC1 (freshwater, Category 1, trout maintenance) waterway. Wetlands surround the stream and may occur within 60 feet, or closer, of the proposed path. Generally, the path occurs in Rank 1 habitat, but may encounter Rank 2 habitat. Rank 2 habitat surrounds the stream and Rank 1 habitat encased this Rank 2 habit.



TOMS RIVER BICYCLE & PEDESTRIAN PLAN

NJDOT Local Technical Planning Assistance

Map ENVIRONMENTAL CONSTRAINTS

LEGEND

- Streams
- Historic Districts
- Historic Properties
- ChromateSites
- Brownfields
- A
- AE
- AO
- VE
- CKE
- CEA
- Wetlands

0 0.5 1 Miles

NORTH

Data Source: Toms River Planning Department, Sidewalk (2007)

Figure 26 - Environmental Screening: Segments Map

There are no NJDEP GeoWeb mapped historic properties or districts, or Archaeological Grid Maps.

Trees are in close proximity to the existing pathway and may be impacted by site activities.

Segment 3: Church Road

Nearly the entire project area is underlain by a CKE. A KCS is located at the northeast quadrant of the GSP/ Church Street intersection. A second KCS and associated groundwater contamination classification exemption area (CEA) is located at the northeast quadrant of the Route 620 (Church Rd)/Route 549 (Hooper Ave) crossing. Historic fill is not mapped in this area.

The project lies within Tideland Grid Maps 427-2136 and 427-2142. One very small mapped wetland is located south of Church Road and east of the GSP. This small wetland extends northward from a larger mapped wetland. Rank 2 habitat is mapped at the southeast intersection of Route 9 and the path. Rank 3 – State Threatened habitat generally surrounds Route 620 (Church St.) east of the GSP to about the Silverton Road intersection. East of Silverton Road, Rank 3 and Rank 4 – State Endangered habitat is located along various sections of Church Road. A waterbody is located at the southwest quadrant of the Route 9/path intersection. At its nearest point, Silver Bay Tributary is located approximately 150 south of Church Road. This is a FW2-NT/SE1 (freshwater, non-trout, saline estuarine) waterway. The area lies in/adjacent to Flood Hazard Area AE.

One Identified Individual historic property is located north of proposed path and east of the Route 9/Stevens Road intersection. The Garden State Parkway lies within the Garden State Parkway Historic District (Ocean). The proposed path is located within Archaeological Grid Map ER185 (from approximately Hinds Rd., west to Hopper Ave).

It does not appear trees will be impacted by site activities. However, potential concerns may arise, depending on design, with trees located south of South Shore Drive to the project area's southern extent.

Segment 4: Hooper Avenue

Two KCS are located along the western boundary of Route 549 (Hooper Ave.). A CEA is located at the intersection of Route 549 (Hooper Ave.) and Moore Rd.

Silver Bay tributary flows beneath Hooper Ave (Route 549). A second tributary to Silver Bay flows adjacent to the roadway. near College Dr. Both waterways are designated as FW2-NT/SE1 waterways. Both tributaries flow into SE1C1 (Category 1, saline estuarine) waters. The nearest SE1C1 water is 2,400 feet downstream of the Silver Bay tributary that flows beneath the roadway. Silver Bay Tributary is associated with claimed tidelands and has a head of tide located 235 feet west of Hooper Ave. The project area lies within Tideland Grid Maps 427-2142, 420-2142, and 420-2136. Upper wetland boundaries for Silver Bay Tributary are located east of Hooper Ave. Wetlands nearly surround an approximately 4,800 feet section of Route 549 on both sides. Rank 1 through 4 habitat is located along Hooper Ave. The area lies in Flood Hazard Area AE.

There are no NJDEP GeoWeb mapped historical properties or historic districts along this project segment. The project lies within Archaeological Grid Map ER185.

Generally, it does not appear trees will be impacted by site activities in this area. The area of most concern for potential tree impacts is near

Fischer Blvd.

Segment 5: Municipal Open Space Path

There are no NJDEP GeoWeb mapped KCS, CEA, or CKE in this project area. Portion of the proposed path occurs in historic fill.

The proposed/existing pathway crosses over two tributaries to Silver Bay. Both are designated as FW2-NT/SE1 waterways and flow Into SE1C1 waters. Wetlands are located throughout various sections of the project area. The entire area is located within Rank 1 through Rank 4 habitat. Rank 4 habitat generally occurs eastward near the waterways. The project is located within Tidelands Grid Map 420-2142 and appears to avoid claimed tidelands and head of tides. The project area lies in a Flood Hazard Area AE.

There are no NJDEP GeoWeb mapped historic properties, districts, or Archaeological Site Grids along this project area.

There is an existing hiking path with trees located in close proximity to the proposed path widening. Tree impacts may occur at various locations where the existing path narrows.

Segment 6: Utility R.O.W.

The proposed path is located within an unmapped historic fill area along a utility corridor. A CKE is located near the northern extent by the GSP at the northern terminus of the proposed path.

The proposed path crosses over Silver Bay Tributary and Long Swamp Creek. Both waterways are designated as FW2-NT/SE1. A Flood Hazard Area (AE) is associated with Long Swamp Creek; therefore, the path crosses a Flood Hazard Area. Surrounding both waterways are large areas of wetlands. Nearly the entire path is located in Rank 3 habitat.

No NJDEP GeoWeb mapped historic sites or districts occur at this location. A portion of path occurs in Archaeological Grid EN188.

This area appears to have been clear-cut; therefore, it is not anticipated that trees will be impacted.

Segment 7: Route 9

The proposed path occurs within a CEA groundwater contamination area. Historic fill, CEAs, and KCS are not mapped in this area on NJ GeoWeb.

Waterbodies and streams were not identified in this area on NJDEP GeoWeb. Wetlands are located at the southern extent near Whitty Rd. and were identified as Rank 1 habitat. The path is proposed in Tidelands Grid Map 420-2124.

Identified Individual properties are located on both sides of Route 9.

Trees are in close proximity to the proposed path, primarily at the southern extent, and may be impacted.

Segment 8: CR 571

The proposed path is located along various areas containing historic fill (near a pond by Route 9, GSP, North Dr., and Ashely Pl. to North Bay Ave).

The proposed path crosses over Long Swamp Creek at the western extent. This is a FW2-NT/SE1 waterway containing a Flood Hazard Area (AE). Wetlands are located south of Indian Head Road at the eastern extent and near the Bay Ave/North Bay Ave merge. Generally, Rank 1 and 2 habitat is located along various sections of the proposed path with Rank 3 habitat occurring adjacent to/ within the project area near Bay Ave. and North Bay Ave. At the western extent, the trial lies in Tidelands Grid Map 420-2124.

No NJDEP GeoWeb mapped historic sites or districts occur at this location. A portion of path occurs in Archaeological Grid EJ188.

There are existing trees in close proximity to the roadway, although sidewalks are present in most areas.

Segment 9: Oak Avenue

Historic fill, CKEs, CEAs, and KCS are not mapped along the project area on NJ GeoWeb.

Wetlands, streams, Landscape habitat are also absent on NJ GeoWeb. The path is proposed in Tidelands Grid Maps 420-2136 and 413-2136.

The project is proposed outside NJDEP GeoWeb mapped historic districts, historic properties, and historic Archaeological Grid Maps.

Existing trees may be impacted, particularly at the eastern extent.

Segment 10: Cattus Island Path

A CKE occurs at the proposed trail's southern extent. Mapped historic fill appears adjacent to the trail's northern extent and near Bandon Road.

The trail traverses four waterways, Silver Bay Tributary, Crossway Creek Tributary, Crossway Creek, and Applegate Creeks, which are all designated as FW2-NT/SE1 waterways. Less than 1,000 feet downstream of Crossway Creek and Crossway Creek Tributary, these waterways discharge into SE1C1 waters. Upper wetland boundaries lie adjacent and close to the path near Crossway Creek and Crossway Creek Tributary. Head of tide and claimed tidelands are located just east/adjacent to the proposed trail near Crossway Creek and Crossway Creek Tributary. The project area lies in Tideland Grid Maps 420-2142, 420-2148, and 413-2148 and within Flood Hazard Area AE. Along most of the proposed trail, wetlands are located adjacent to or within the proposed trail. Rank 1 through 4 habitat is located within or adjacent to the entire trail.

The entire area is located in several Archaeological Grid Maps (ES189, ES190, and ET190).

A walking/hiking trail exists along most of the proposed path and trees are in close proximity. Tree impacts may occur in narrow areas.

Segment 11: Goose Creek Path

KCS, CEA, and CKE are absent with potential historic fill occurring at the most eastern extent near Matso Dr.

The proposed paths cross over Goose Creek and Goose Creek Tributary (FW2-NT/SE1) and discharge into SE1C1 waters. Two head of tides are located east and south of the proposed path, approximately 115 to 375 feet away. The entire area lies in wetlands and Flood Hazard Area AE. Generally, the proposed path is located within Rank 1 habitat, although Rank 2 through Rank 4 habitat is adjacent to the proposed path.

There are no NJDEP GeoWeb mapped historic districts, historic properties, or Historic Archaeological Site Grids along this project area.

A walking/hiking trail exists along the proposed pathway and trees are in close proximity. Tree impacts may occur in narrow areas if the existing trail is to be widened.

Segment 12: Route 37

Historic fill is located just outside the proposed path location and a KCS occurs at an adjacent property located south of the proposed path.

There are no streams or waterbodies along the proposed path. Long Swamp Creek lies west of project area. Wetlands are located west of Brookside Drive on the north and south sides of Route 37. Wetlands consist of Rank 3 habitat with Rank 1 and Rank2 habitat surrounding Rank 3 habitat. The project lies in Tidelands Grid Map 406-2136.

There are no NJ GeoWeb mapped historic districts, historic properties, or Historic Archaeological Site Grids along the proposed path area along this project area.

Trees are absent from this area along Route 37. Trees are located along Brookside Drive.

Segment 13: Route 37

Two KCS occur adjacent to the proposed path. One occurs near Neal St. and Division St. and the second is located east of Route 549 between Cedar Grove Rd and Route 37. Historic fill is located south of project area.

There are no wetlands, streams, waterbodies, or landscape habitat along the proposed path area. The project area is located in Tidelands Grid Map 406-2130

There are no NJDEP GeoWeb mapped historic districts, historic properties, or Historic Archaeological Site Grids along this project area.

Few trees are present and it is not anticipated they will be impacted.

Segment 14: Highland Parkway

KCS, CEA, and CKE are absent.

The proposed path crosses over two tributaries to Toms River. One does not have a surface water quality classification and the other is designated as FW2-NT/SE1. The entire path is located in mapped wetlands and Rank 1 habitat. Rank 1 habitat is surrounded by Rank 2 habitat. Upper wetland boundaries located north of Route 527 and claimed tidelands may be encountered. The area lies in Flood Hazard Area AE.

The proposed path lies in a National Register eligible Historic Archaeological Site Grids EK193 and the southern extent may traverse in the Garden State Parkway Historic District (Ocean).

Tree removal may occur depending upon the specific location of the path.

Segment 15: Winding River Trail

KCS, CEA, and CKE are absent. A large portion of the proposed path extension is located in historic fill.

Wetlands are adjacent to the proposed path. Streams and waterbodies are absent from the proposed pathway and immediate vicinity. Rank 1 and Rank2 habitat is located within wetland area. These occur in Tideland Gird Maps 406-2130 and 406-2124. The proposed pathway lies within Flood Hazard Area AE.

The southern extent of the proposed path likely intersects the Garden State Parkway Historic District (Ocean). Known historic properties are absent. The proposed path lies in National Register eligible Historic Archaeological Site Grid EL193.

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APPENDIX 5

Ocean County Multi-Modal Policy Guidelines

(received in 2019)

OCEAN COUNTY
MULTI-MODAL TRANSPORTATION POLICY GUIDELINES

The Ocean County Board of Chosen Freeholders fully recognizes the importance of multi-modal transportation and the ever increasing desire for safe bike routes throughout Ocean County. Cycling is not only an excellent for of recreation and exercise, but a growing means of affordable short trip transportation.

Wherever possible, off-road/bike paths should be encouraged. The County's own "Barnegat Branch Trail" is the off-road spine of the County bikeway system linking public parks, municipal bike paths and other regional features.

In those instances where an off-road trail is not possible, and a municipality wishes to advance a segment of bikeway along a County roadway, the following shall apply:

DESIGN CRITERIA

1. The proposed bike path or lane shall be part of a duly established "Bikeway" Plan and be indentified with the applicable route markings.

2. The proposed bikeway should be off-road. If this is not possible, the design of the bike lane shall follow the criteria established in the "NJDOT Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines."

3. The design of all pavement marking regulatory signs and bike route identification signs shall comply with the requirements of the 2009 Edition of the "Manual on Uniform Traffic Control Devices" (MUTCD), as amended.

4. The proposed bike path/bike lane may not diminish the through volume capacity of the roadway.

PROCEDURES

1. Upon notifying the County of their intentions, any municipality desiring to implement a bike path or bike lane in a County Right-of-Way shall subsequently submit the following for review and approval of the County Engineer:

a. Copies of the approved municipal bikeway plan identifying the extent and location of the segment in question.

b. A dimensioned plan prepared by the municipality's Engineer showing the design and layout of the bike path or bike lane, pavement widths, parking regulations, intersection treatments, pavement markings, regulatory signs and route markers in accordance with MUTCD designations and requirements

c. A certification from the municipal Engineer that the proposed design meets or exceeds the preferred requirements of Chapter 3 of the "NJDOT Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines" and Part 9, Traffic Control for Bicycle Facilities, 2009 MUTCD, as amended.

2. Upon approval by the County Engineer, the municipality will adopt an ordinance to create the bike path or lane, including applicable penalties, and a maintenance provision.

3. Upon concurrence of the Board of Chosen Freeholders, the municipality will, at its expense, install or cause to have installed all pavement markings and regulatory signs and the Municipal Engineer shall inspect and provide written certification that the project has been built in compliance with the approved plans and referenced standards, subject to the final approval of the County Engineer.

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APPENDIX 6
Typical Unit Costs Matrix

TYPICAL UNIT COSTS MATRIX

SOURCE: http://www.saferoutesnj.org/wp-content/uploads/2013/07/SRTS-Costs-August-2017-update.pdf

This typical unit costs matrix was downloaded from the Safe Routes to School, NJ website. NV5 added estimated costs for buffered bicycle lanes and protected bicycle lanes to the original cost sheet.

SRTS Cost Sheet - updated 2017

Safe Routes to School Design Treatment Typical Costs			Material Cost (Installed with in house staff)		Installed Cost (Bid to contractor for installation)	
	Type of Treatment	Typical Size	Unit Cost (Material)	Product Cost (Material)	Unit Cost (Labor + Material)	Product Cost (labor + Material)
Designing for Pedestrians - Signs and Stripes/ Pavement Markings						
	Pavement Markings - Words or Symbols ("School XING" , "ONLY" or 2 arrows)					
	Material = Paint	**20 SF**	$1.00 /SF	**$20**	$1.60 /SF	**$32**
	Material = Long life, thermoplastic	**20 SF**	$2.00 /SF	**$40**	$3.20 /SF	**$65**
	Crosswalks					
	Standard style - Paint (Two Lines Cross Walk, 40' long)	**54 SF**	$1.00 /SF	**$54**	$1.60 /SF	**$87**
	Continental style (10' wide, 40' long, 1' lines every 2')					
	Material = Paint	**225 SF**	$1.00 /SF	**$225**	$1.60 /SF	**$360**
	Material = Long life, thermoplastic	**225 SF**	$2.00 /SF	**$450**	$3.20 /SF	**$720**
	Imprinted Crosswalks (assume 10' wide, 40' long)	**400 SF/ 44 SY**	$130 /SY	**$5,700**	$225 /SY	**$9,900**
	Signs					
	Regulatory and Warning Signs (ex. "Stop for Pedestrian", "End School Zone")	**3 - 9 SF (18" x 24") - (3' x 3')**	$30 SF	**$90 - $270**	$40 SF	**$120 - $360**
	Driver Speed Feedback Sign - **Portable** (also called a Radar Speed Sign)	**each (2' x 3')**	$3,100 - 6,000	**$3,100-$6,000**	$3,500-$6,500	**$3,500 - $6,500**

SRTS Cost Sheet - updated 2017

Safe Routes to School Design Treatment Typical Costs			Material Cost (Installed with in house staff)		Installed Cost (Bid to contractor for installation)	
	Type of Treatment	Typical Size	Unit Cost (Material)	Product Cost (Material)	Unit Cost (Labor + Material)	Product Cost (labor + Material)
	Driver Speed Feedback Signs - **Fixed on pole** (also called a Radar Speed Sign)	**each (2' x 3')**	$3,000 - 4,000	**$3,000-$4,000**	$5,000-$6,000	**$5,000-$6,000**
	Portable Solar Powered Traffic Speed Trailer	**each (trailer)**	$12,000	**$12,000**	$15,000	**$15,000**
	Dynamic Message Sign - portable (Multiple Lines of Text)	**each (4' x 8')**	$11,600-$15,200	**$11,600-$15,200**	$14,500-$19,000	**$14,500-$19,000**
Designing for Pedestrians - Intersections						
	Traffic Signals					
	Adding Pedestrian Signal Heads and push buttons to an existing Traffic Signal	**8 signal heads and 8 push buttons**	$1000.00 + $450.00 each	**$11,600**	$2,900	**$23,200**
	New Traffic Signal with Countdown Pedestrian Signal Heads	**Intersection of two roads, each with one lane in each direction**	$187,500	**$187,500**	$250,000	**$250,000**
	Pedestrian Activated Facilities					
	Flashing Beacon/Enhanced Warning Sign	**2 signs, one posted in each direction**	$5,800	**$11,600**	$6,500	**$13,000**
	Rectangular Rapid Flashing Beacon (RRFB)	**2 signs, one on each Side of Street**	$8,000 - $12,000	**$8,000 - $12,000**	$10,000-$15,000	**$10,000-$15,000**

SRTS Cost Sheet - updated 2017

Safe Routes to School Design Treatment Typical Costs			Material Cost (Installed with in house staff)		Installed Cost (Bid to contractor for installation)	
	Type of Treatment	Typical Size	Unit Cost (Material)	Product Cost (Material)	Unit Cost (Labor + Material)	Product Cost (labor + Material)
	Pedestrian Crossing In-Roadway Illumination System	**Equipment includes fixtures, 4 lamps/ lane for a 3 lane crosswalk, controller, pole, and push button activator.**	$21,000 - $32,000	**$21,000 - $32,000**	$31,000 - $53,000	**$31,000 - $53,000**
	HAWK Signal	**Mid-block, 4 lane roadway, are on each side of the road**	$75,000-150,000	**$75,000 - 150,000**	$100,000-$190,000	**$100,000 - $190,000**
	Shorter Crossing Treatments & Refuge Areas					
	Curb Extensions (simple - no drainage modification required)	**6' wide, 20 feet long**	$4,500	**$4,500**	$6,000	**$6,000**
	Curb Extensions (complex - assume drainage modifications required)	**6' wide, 20 feet long**	$16,000	**$16,000**	$20,000	**$20,000**
	Pedestrian refuge island	**Assume a minimum of 6' wide and 10' long**	$5,600	**$5,600**	$7,500	**$7,500**
Designing for Pedestrians - Paths and Sidewalks						
	Paths - Shared Use Path (10' wide)					
	Material = Asphalt	**100 Yards**	$70/FT	**$21,000**	$95/FT	**$28,500**
	Material = Crushed Stone (will have higher maintenance costs)	**100 Yards**	$45/FT	**$13,500**	$60/FT	**$18,000**

SRTS Cost Sheet - updated 2017

Safe Routes to School Design Treatment Typical Costs		Material Cost (Installed with in house staff)		Installed Cost (Bid to contractor for installation)	
Type of Treatment	Typical Size	Unit Cost (Material)	Product Cost (Material)	Unit Cost (Labor + Material)	Product Cost (labor + Material)
Sidewalks & Accessibility					
Sidewalks – concrete (5' wide)	**100'**	$50/FT	**$5,000**	$60/FT	**$6,000**
Detectable Warning Surface (assumes curb ramp already in place)	**2'x4' each**	$125 /SY	**$125**	$250 /SY	**$250**
Curb Ramps	**new curb and concrete 5' deep 15' wide**	$1200 each	**$1,200**	$1,500	**$1,500**
Bollards on sidewalk (typical grouping of at least 4 bollards)	**4' high, steel or concrete**	$500 each	**$2,000**	$750 each	**$3,000**
Designing for Bicyclists - Roadway treatments and Amenities					
Roadway Treatments					
"Bicycle-safe" stormwater drainage grates	**each (2' x 4')**	$280	**$280**	$360	**$360**
Video Detectors (Installed in pairs) (2 Cameras + Processor)	**Detector and stencil**	$16,000	**$16,000**	$20,000	**$20,000**
Parking					
Bicycle Racks (parking for two bicycles)	**each**	$120 - $300	**$120 - $300**	$200-$400	**$200 - $400**
Lockers (each holds 2 bikes)	**each**	$1,500 - $3,000	**$1,500 - $3,000**	$2,000 - $4,000	**$2,000 - $4,000**
Shelter/Covered (Excluding Racks) (each holds 8 - 12 bikes)	**each**	$1,000 - $3,000	**$1,000 - $3,000**	$1,700 - $5,000	**$1,700 - $5,000**

SRTS Cost Sheet - updated 2017

Safe Routes to School Design Treatment Typical Costs			Material Cost (Installed with in house staff)		Installed Cost (Bid to contractor for installation)	
	Type of Treatment	Typical Size	Unit Cost (Material)	Product Cost (Material)	Unit Cost (Labor + Material)	Product Cost (labor + Material)
Designing for Bicyclists - Signs and Stripes/ Pavement Markings						
	Signs					
	Share the Road Sign (Assembly)	**12 SF (3' x 3') + (24" x 18")**	$360.00	**$360**	$480.00	**$480**
	Bike Route (signing per mile)	**20 signs per mile (1.5' x 2')**	$30 /SF	**$1,800**	$40 /SF	**$2,400**
	Pavement Markings					
	Shared lane markings “Sharrows”	**each (30 SF)**	$2.00 SF	**$60**	$3.00 SF	**$200**
	Bike Symbol (Words or Arrows, assume thermoplastic)	**20 SF**	$2.00 SF	**$40**	$3.00 SF	**$60**
	Bike lane striping (adding 4” white thermoplastic striping)	**1 mile**	$1.00 /LF	**$5,300**	$1.60 /LF	**$8,500**
	Colored Bike Lane (Green thermoplastic 4' wide and 50 ' long)	**200 SF**	$2.00 /SF	**$400**	$3.00 /SF	**$600**
	Buffered Bike Lane (3' striped separation)**(Estimated by NV5 for Toms River Township)	**1 mile**	$4.00 /LF	**$21,120**	$6.50 /LF	**$34,320**
	Protected Bike Lane (Flexible delineators and 3' striped separation)**(Estimated by NV5 for Toms River Township)	**1 mile**	$9.00 /LF	**$47,520**	$14.25 /LF	**$75,240**

SRTS Cost Sheet - updated 2017

Safe Routes to School Design Treatment Typical Costs			Material Cost (Installed with in house staff)		Installed Cost (Bid to contractor for installation)	
	Type of Treatment	Typical Size	Unit Cost (Material)	Product Cost (Material)	Unit Cost (Labor + Material)	Product Cost (labor + Material)
Traffic Calming - Passive Measures						
	Passive Speed Control Measures					
	Streetscaping					
	Street trees	each	$500	**$500**	$900	**$900**
	Pedestrian Scale Lighting (12' tall, installed every 50 ')	each	$1,500 - 2,500	**$1,500 - $2,500**	$2,250-4,000	**$2,250 - $4,000**
	Rumble Strips (Milled into Pavement)	40'	$3 /LF	**$120**	10 /LF	**$400**
	Rumble Stripes (Thermo on top of Pavement)	40'	$9 /LF	**$360**	15 /LF	**$600**
	Textured/colorized pavement					
	Concrete Sidewalk, 4" Thick, 5' Wide	100'	$90 /SY	**$5,000**	$108 /SY	**$6,000**
	Tinted Concrete Sidewalk, 4" Thick, 5' Wide	100'	$95 /SY	**$5,300**	$115 /SY	**$6,400**
	Brick Sidewalk, 5' wide	100'	$105 /SY	**$5,800**	$160 /SY	**$9,000**

SRTS Cost Sheet - updated 2017

Safe Routes to School Design Treatment Typical Costs			Material Cost (Installed with in house staff)		Installed Cost (Bid to contractor for installation)	
	Type of Treatment	Typical Size	Unit Cost (Material)	Product Cost (Material)	Unit Cost (Labor + Material)	Product Cost (labor + Material)
Traffic Calming - Active Measures						
	Active Speed Control Measures					
	Horizontal Deflection					
	Chicane	each	$19,000	**$19,000**	$30,000	**$30,000**
	Mini roundabout (traversable islands that is small enough to stay within the existing ROW)	each	$24,000	**$24,000**	$35,000	**$35,000**
	Neighborhood Traffic Circle (do not include raised channelization)	each	$10,000 - $50,000	**$10,000 - $50,000**	$15,000 - $75,000	**$15,000-$75,000**
	Constrictions					
	Curb Extensions (high end - assume drainage modification required)	each (could have 4 per intersection)	$16,000 - $64,000	**$16,000 - $64,000**	$20,000 - $80,000	**$20,000 - $80,000**
	Neckdowns (assume no drainage modifications required)	each	$3,000 - $6,400	**$3,000 - $6,400**	$4,000 - $8,000	**$4,000 - $8,000**
	Pedestrian refuge island	each	$5,600	**$5,600**	$7,500	**$7,500**
	Vertical Deflection					
	Speed Humps (Speed Tables)	each	$2,000-$4,000	**$2,000-$4,000**	$3,000-$5,000	**$3,000-$5,000**

SRTS Cost Sheet - updated 2017

Safe Routes to School Design Treatment Typical Costs			Material Cost (Installed with in house staff)		Installed Cost (Bid to contractor for installation)	
	Type of Treatment	Typical Size	Unit Cost (Material)	Product Cost (Material)	Unit Cost (Labor + Material)	Product Cost (labor + Material)
	Raised crosswalk	each	$6,000	**$6,000**	$8,200	**$8,200**
	Raised intersection (includes paving, drainage, signs and striping)	each	$60,000-$96,000	**$60,000-$96,000**	$80,000 - $120,000	**$80,000 - $120,000**
Volume Control Measures						
	Physical Diverters					
	Full street closure	each	$500 - $150,000	**$500 - $150,000**	$1,000 - $225,000	**$1,000 - $225,000**
	Partial street closure	each	$250 - $75,000	**$250 - $75,000**	$500 - $150,000	**$500 - $150,000**
	Diagonal diverter	each	$100,000	**$100,000**	$150,000	**$150,000**
	Median barrier	each	$10,000 - $20,000	**$10,000 - $20,000**	$15,000 - $30,000	**$15,000 - $30,000**
	Forced turn island	each	$10,000 - $15,000	**$10,000 - $15,000**	$15,00 - $25,000	**$15,000 - $25,000**

Cost Assumption Notes:
1-Maintenance & Protection of Traffic costs are not included.
2-Excludes ROW, and Utility impacts or relocation costs.

BICYCLE & PEDESTRIAN PLAN

Township of Toms River

NV5

STOKES
Creative Group, Inc.