Bicycle & Pedestrian Plan

Mount Olive Township, NJ

APRIL 2018

NV5

DEPARTMENT OF TRANSPORTATION
THE STATE OF NEW JERSEY

Acknowledgements

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 this plan for the Township of Mount Olive.

Special Thanks to the Steering Committee for their time and ongoing commitment to making Mount Olive Township a safe and envjoyable place for walking and bicycling.

PROJECT TEAM

The office of Bicycle and Pedestrian Programs, New Jersey Department of Transportation and Mount Olive Township.

with

NV5, Inc.
7 Campus Drive
Suite 300
Parsippany, NJ 07054

and

Civic Eye Collaborative
55 McCoy Avenue
Metuchen, NJ 08840

Disclaimer:
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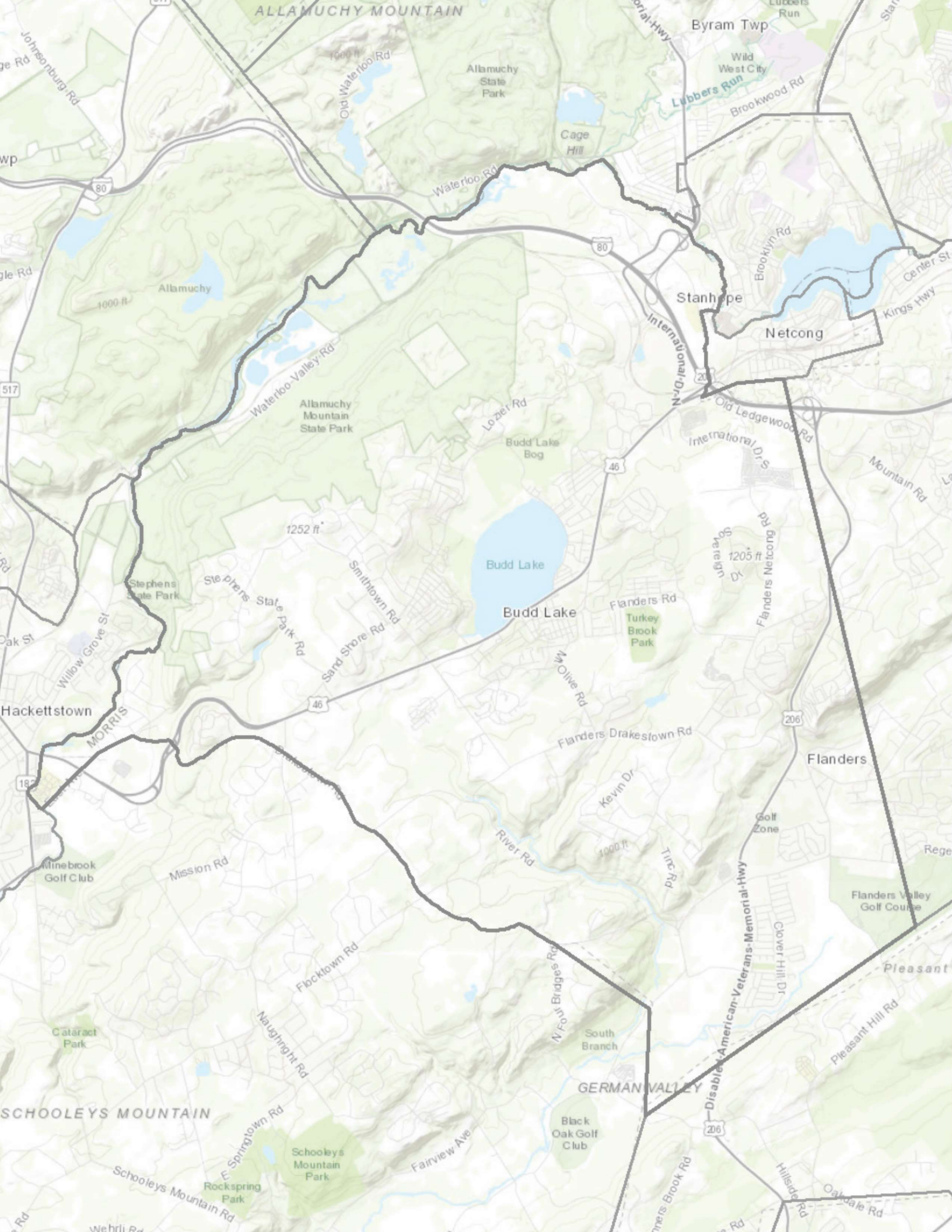

ALLAMUCHY MOUNTAIN
Byram Twp
Lubbers Run
Wild West City
Allamuchy State Park
Old Waterloo Rd
Johnsonburg Rd
Cage Hill
Waterloo Rd
Brookwood Rd
Brooklyn Rd
Center St
Kings Hwy
Stanhope
Netcong
International Dr N
Old Ledgewood Rd
International Dr S
Mountain Rd
Allamuchy
Waterloo Valley Rd
Allamuchy Mountain State Park
Lozier Rd
Budd Lake Bog
1252 ft
Budd Lake
Stephens State Park
Stephens State Park Rd
Smithtown Rd
Sand Shore Rd
Budd Lake
Flanders Rd
Turkey Brook Park
Sovereign Dr
1205 ft
Flanders Netcong Rd
Willow Grove St
Oak St
Hackettstown
MORRIS
Mt Olive Rd
Flanders Drakestown Rd
Flanders
Kevin Dr
Golf Zone
River Rd
Tinc Rd
Minebrook Golf Club
Mission Rd
Flanders Valley Golf Course
Clover Hill Dr
Disabled American Veterans Memorial Hwy
Flocktown Rd
N Fork Bridges Rd
Pleasant
Pleasant Hill Rd
Cataract Park
Naughright Rd
South Branch
GERMAN VALLEY
SCHOOLEYS MOUNTAIN
Black Oak Golf Club
E Springtown Rd
Schooleys Mountain Park
Fairview Ave
Schooleys Mountain Rd
Rockspring Park
Hillside Rd
Oakdale Rd
Webrli Rd

Introduction

Project Background

The Township of Mount Olive was selected by New Jersey Department of Transportation (NJDOT) to receive Local Technical Assistance to create a plan which, when implemented, will benefit the community and promote bicycle and pedestrian travel in the Township. The Township of Mount Olive's vast trail network was reviewed to:

- Understand the extent to which connections are needed
- Provide a vision of trail linkages between major destinations
- Plan for future pathway opportunities based on current and future conditions.

Mount Olive Township is home to many local attractions, such as business districts and retail areas—including the International Trade Center, schools, Budd Lake, numerous parks and open spaces, and a rail station. People would be more likely walk or bike to these destinations if the proper facilities existed. By determining where resolving missing links can benefit the community and promote bicycle and pedestrian travel, the Township can develop projects and programs that enhance safe, easily accessible trails that connect public facilities, retail businesses, restaurants and recreational opportunities.

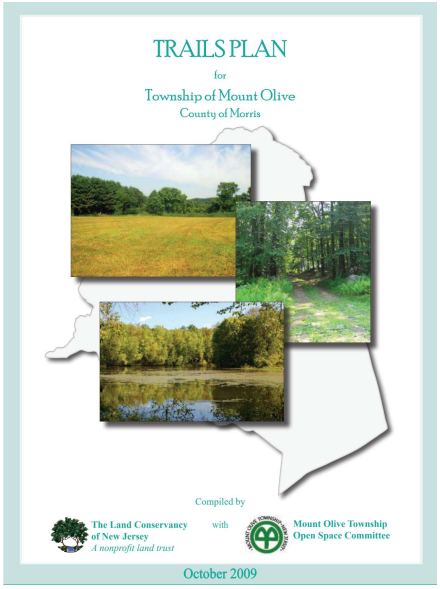
The Township indicated that bicycle and pedestrian travel along existing state roadways within the municipality, particularly Route 206 and Route 46, is challenging due to truck traffic. The Township would welcome any improvements to enhance safety.

This plan builds on the Township's *Trails Plan* from October 2009. The plan is available from the Web at www.mountolivetownship.com/index.php/township/mount-olive-trail-plans.

Setting & Context

Mount Olive Township, located in Morris County, covers 33.8 square miles. It has a population of 28,000 residents and contains 140 miles of roadways (including Routes 46 and 206). It has a combination of rural and suburban residential characteristics. It is located primarily within the NJ Highlands Preservation area, with a portion located within the NJ Highlands Planning area. A third of land area of the Township is preserved as open space. Its business community is centrally-located and surrounded by residential neighborhoods.

A major recreational area, Turkey Brook Park, is centrally-located and has several existing trails that consist of paved, partially-paved, and natural paths. Budd Lake is another popular recreation area that contains trails. The International Trade Center is a major shopping and dining area. Columbia Trail, a tow path along a preserved section of the Morris Canal, is an actively-used recreational path. Trails also exist in Allamuchy Mountain and Stephens State Park, but lack access points from Mount Olive. Additional trails include: Patriots Path and Sussex Branch Trail and the High Point to Cape May Bicycle Route.



Vision, Goals & Objectives

To establish a collaborative direction for bicycling and walking in the Township, a Steering Committee was convened and public events were held to solicit input from residents and other stakeholders. A qualitative systems evaluation and online tools supplemented the in-person engagement. All of these engagement groups, events, and methods informed the vision, goals, and priorities of the plan, leading to a comprehensive vision aimed at addressing and enhancing specific bicycle and pedestrian travel needs.

Vision

The following represents the overall vision for bicycle and pedestrian planning in Mount Olive Township:

- Provide access to open space.
- Provide access to existing state parks.
- Provide connections to regional trail systems and trails in neighboring communities (e.g., Washington Township's Columbia Trail and Patriots Path).
- Develop concepts to provide pathways to work and play, linking residential neighborhoods to recreational and work/business areas.
- Provide sidewalk and bicycle connections, with a focus on Route 46, Route 206, International Drive, and in center of town and in the vicinity of Mount Olive High School.
- Expand exercise and natural appreciation opportunities (bike, walk, or hike for health benefits).

Goals

- Improve pedestrian and bicycle access and safety around township schools.
- Improve pedestrian and bicycle safety and confidence along Route 46 near Budd Lake and ITC Crossing by providing appropriate facilities.
- Create trail connections linking schools, Budd Lake, and Turkey Brook Park
- Improve trail signs and markings.
- Promote awareness of underutilized trails in the Township.

Objectives

The Mount Olive Bicycle and Pedestrian Plan objectives included:

- Confirm the Township's bicycle and pedestrian plan vision.
- Identify a priority bicycle and pedestrian network.
- Develop planning level concepts focused on major connections/links.
- Evaluate the Township's Complete Streets accommodations.

Methodology

NJDOT, Mount Olive Township, and NV5 started this planning effort emphasizing the vital role that safe bicycle and pedestrian travel plays within Mount Olive. The planning process started with a Steering Committee kickoff meeting in January 2017 (Meeting Summary provided in **Appendix A**, and information collected, summarized in **Appendix H**).

A WikiMapping site (project specific on-line mapping service) and an online survey were created to provide the public with the opportunity to identify problem areas, safety concerns, issues, and opportunities.

A visioning workshop was held in March 2017 to inform the public about the study and to develop a vision, objectives, and goals related to bicycling and walking in the Township.

Once the community vision was identified and public input was received and reviewed with the Township, priority concept areas were identified and reviewed with the Steering Committee in May 2017. The concept areas focus on safe connections and transportation networks to major destinations in the Township such as schools, parks, commercial centers, and municipal facilities.

An assessment of overall needs of the transportation network was conducted to determine the extent of bicycle and pedestrian accommodations with a focus on the concept areas. Assessment of existing data as well as field investigations at focus areas within the Township identified barriers, gaps in connectivity, and the current transportation system's capability to safely accommodate bicycle and pedestrian travel.

After completing further assessment and preparing planning concept recommendations, which were reviewed with the Township in December 2017, a final public outreach event was held in February 2018. Attendees commented on the recommended improvements and arrived at a consensus consistent with the Steering Committee regarding the vision, goals, and objectives of the project.

Utilizing the results of the needs assessment, steering committee input, and public outreach responses, the final planning level concept recommendations were developed and the draft and final plan was produced. When funds for improvement are allocated, priorities should consider the planning concept recommendations within this plan.

On the following page is a graphic illustrating the planning process and timeline.

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

METHODOLOGY

NV5

PUBLIC OUTREACH

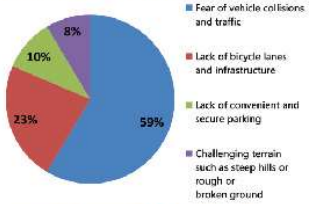
VISIONING WORKSHOP

ROBOTICS EVENT (Mar'17)

PUBLIC SURVEY & WIKIMAP
(Mar'17-Apr'17)

Findings:
The survey respondents identified 5 concept areas in Mount Olive which helped develop the specific concept recommendations as shown on the right.

Biggest Barriers to Bicycling



Primary Reasons for Bicycling
- Recreation
- Health
- Errands
- Family Time
- Commute to Transit or Work

NEEDS ASSESSMENT
(Apr /May '17)

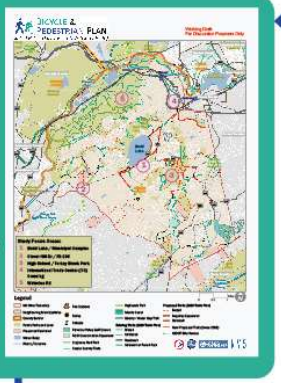
PUBLIC INFORMATION CENTER (Feb'18)

CABIN FEVER RELIEVER

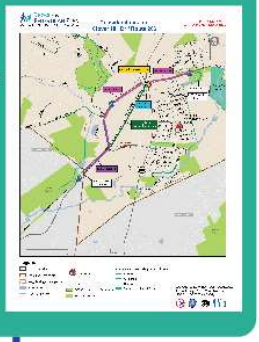
YOUR input today is **KEY** in the development of **Mount Olive's Bicycle and Pedestrian Plan!**

Data Collection / Analysis
(Field reviews, GIS mapping)

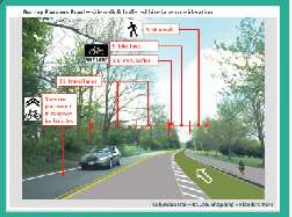
Concept Areas Map
to connect major destinations (schools, parks, etc) and residential neighborhoods in and around Mount Olive and to prioritize those locations when funding for improvements are allocated



Opportunities & Constraints
to assess the Township's transportation system in terms of its capability to safely accommodate bicycle and pedestrian travel by identifying barriers and gaps in connectivity



Concept Recommendations
(Overall & Specific Locations)
- *Trail Map (web updates, conditions)*
- *Mile Markers (roads and trails)*
- *Trail Head Improvements*
- *Wayfinding*
- *Development Connections*
- *Complete Streets Policy*



(example)

Draft / Final Plan
Feb/Mar 2018

STEERING COMMITTEE

MEETING #1
(Jan '17)

MEETING #2
(May '17)

COORDINATION MEETING
(Dec'17)

COORDINATION / REVIEW WITH **MOUNT OLIVE TOWNSHIP** AND **NJDOT** OFFICE OF BICYCLE & PEDESTRIAN PROGRAMS

Public Outreach

First Public Workshop

NV5 conducted a public outreach event on Saturday, March 11, 2017 at the Mount Olive High School during the Mid-Atlantic Robotics Event. To promote the event, a press release was drafted and distributed by the Township to local media outlets and the high school. Information was also posted on Mayor Greenbaum's Facebook page.

Approximately 50 people participated in the workshop. Participants identified areas of concern on online project maps and discussed them with Project Team representatives. Participants provided input on current conditions in the Township and how they might be addressed through trail connections, bikeways, and sidewalks that link recreation areas, schools, neighborhoods, and businesses. Participants could leave comments on the interactive WikiMap or hard copy map and take the project survey.

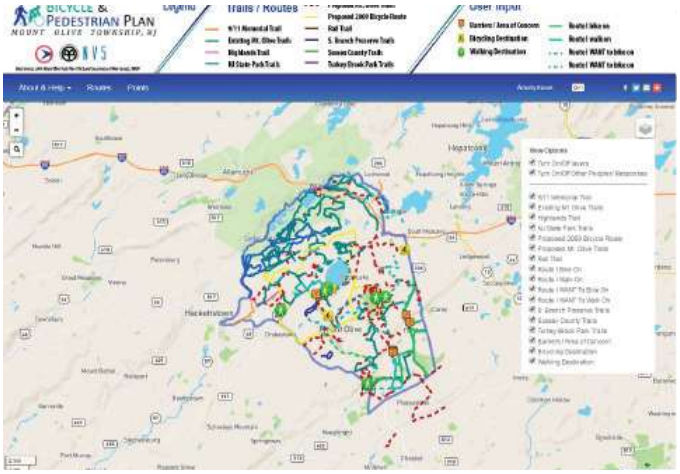
During the event, the following items were addressed to be considered as key issues in the Bicycle and Pedestrian Plan:

- Lack of trail signage and markers.
- Lack of trail connectivity from residential communities.
- Safety concerns.
- Lack of bicycle and pedestrian facilities.
- Meeting Summary, including **Appendix B**.

WikiMapping

The Project Team employed the online, interactive WikiMap platform to garner public input. WikiMap is a map-based tool through which the public can provide comments and/or photos about specific areas and even use drawing tools to provide input.

Stakeholders suggested routes, points of interest, and locations of safety concern on the WikiMap.



This map was also accessible at the visioning workshop, as well as online. A list of comments received through the project WikiMap site is available in **Appendix H**.

Web Survey

A survey was developed in coordination with the Steering Committee to gain insight into the perspectives of a cross section of residents and visitors regarding bicycling and walking in the Township as well as needed trail connections, both current conditions and future vision. Responses from the survey informed the creation of overall and specific concept recommendations within the concept areas.

The survey consisted of a Welcome/Introduction section followed by questions regarding walking, bicycling, walking to school, bicycling to school, trails, commercial areas, and specifically selected areas including Bartley Road, Turkey Brook Park, Budd Lake, and the International Trade Center area.

Responses to the survey provided the Project Team with insight into the opinions of various groups of people, including residents, students, local businessowners, and employees. Responses to the survey are summarized below. A complete list of survey results and accompanying charts is located in **Appendix G**:

- **Least Safe Streets**. Survey respondents cited the following streets as the least safe/comfortable for walking: Route 46, Route 206, Sand Shore Road, Flanders-Bartley Road, and Mount Olive Road.
- **Difficult to Cross Roads**. The most frequently cited roads that survey respondents felt were difficult to cross as a pedestrian were Route 46 and Route 206.
- **Challenges to Pedestrians**. The top 3 challenges listed for pedestrians in Mount Olive were: a lack of a connected sidewalk network (75%); fear of vehicle collisions and traffic (72%); and a lack of connections to parks trails, and community destinations (68%).
- **Barriers to Bicycling**. The most significant barrier to bicycling is “Fear of vehicle collisions and traffic” (90%), followed by “Lack of bicycle lanes and infrastructure” (82%).
- **Frequency of Bicycling**. When asked how frequently do you bicycle on Township streets, approximately 45% of respondents answered that they “Rarely, if ever; I don’t think it’s safe.”
- **Walking to School**. 50% of respondents will not allow their children to walk to school and 65% of respondents will not allow their children to bike to school, citing the same reason: “I don’t think there is a safe route for them to walk or bike.”
- **Areas for Improvements**. 45% of respondents would be more likely to bicycle or walk to the stores/ businesses located in the vicinity of Route 206 and Flanders Bartley Road (CR613) if there was a continuous sidewalk leading to the vicinity. 43% mentioned an increased likelihood if there was a continuous trail separated/buffered from the roadway leading to the vicinity.
- **Greatest Needs**. When asked to rank the following needs of Turkey Brook Park in their order of importance, respondents most frequently ranked “Connections to/ from the High School, Tinc Road Elementary School, and Chester M. Stephens School” as number 1, followed second by “Accessible and accurate maps for trail networks.”
- **Areas for Improvement**. “A complete sidewalk network along roadways surrounding Budd Lake” was most frequently selected as having the most important potential improvement for biking and walking in the Township. Among all the possible answer choices, “A pedestrian overpass over Route 46” ranked the least important.

Steering Committee Review of Recommendations

The Steering Committee met in May 2017 to discuss recommendations in advance of additional public outreach. A meeting summary is provided in **Appendix D**.

Second Public Workshop

Another public outreach event was held in conjunction with Mount Olive's annual event, "Cabin Fever Reliever," which was held on February 10, 2018 at the Mount Olive Township Senior Center. The purpose of the event was to solicit public feedback on planning concepts and recommendations.

Participants learned about the project and planning recommendations, asked questions, and provided verbal or written feedback on the recommendations to Project Team representatives. Meeting Summary is provided in **Appendix F**.

Needs Assessment

Opportunities & Constraints

NV5 collected and prepared maps detailing the study area and surroundings. This included trail maps, crash maps, existing conditions maps, and opportunities and constraints maps. Data sources included: The Land Conservancy, Plan4Safety[1], Mount Olive Township, NJDEP, and NJDOT. The Township's *Trails Plan* from 2009 served as a guide by indicating planned and proposed trails so that remaining gaps in accessibility and connectivity could be considered in this plan.

Crash Data

Crash data from Plan4Safety[1] helped the team assess the frequency and location of reported crashes involving bicyclists and pedestrians between 2009 and 2015 (inclusive) within Mount Olive Township. During this period, 23 crashes occurred, of which 6 (26%) involved bicyclists and 17 (74%) involved pedestrians. Neither the bicycle crashes nor pedestrian crashes resulted in any fatalities. All bicycle crashes occurred at intersections.

On the next page is a map indicating bicycle and pedestrian crash locations between 2006 and 2015. Only crashes involving motor vehicles are included in the Plan4Safety[1] database. Therefore, some crashes, like bicycle crashes from falls or collisions between bicyclists, are not included. The following is a summary of the key findings:

Bicycle & Pedestrian Crashes

- Locations with multiple crashes include: four pedestrian crashes occurred on Route 46 while two pedestrian crashes occurred on International Drive South.
- August had the highest number of bicycle crashes (50%).
- November has the highest number of pedestrian crashes (35%).

Field Investigation

Project Team representatives from NJDOT and NV5 conducted field investigations within Mount Olive Township, focusing on five priority concept areas determined from Steering Committee discussions and public input. More than 20 locations within the concept areas were assessed based on their accessibility, connectivity, and capability to accommodate bicycle and pedestrian travel. Field notes and a photo log of the investigation are included in **Appendix C**.

The five priority concept areas included are:

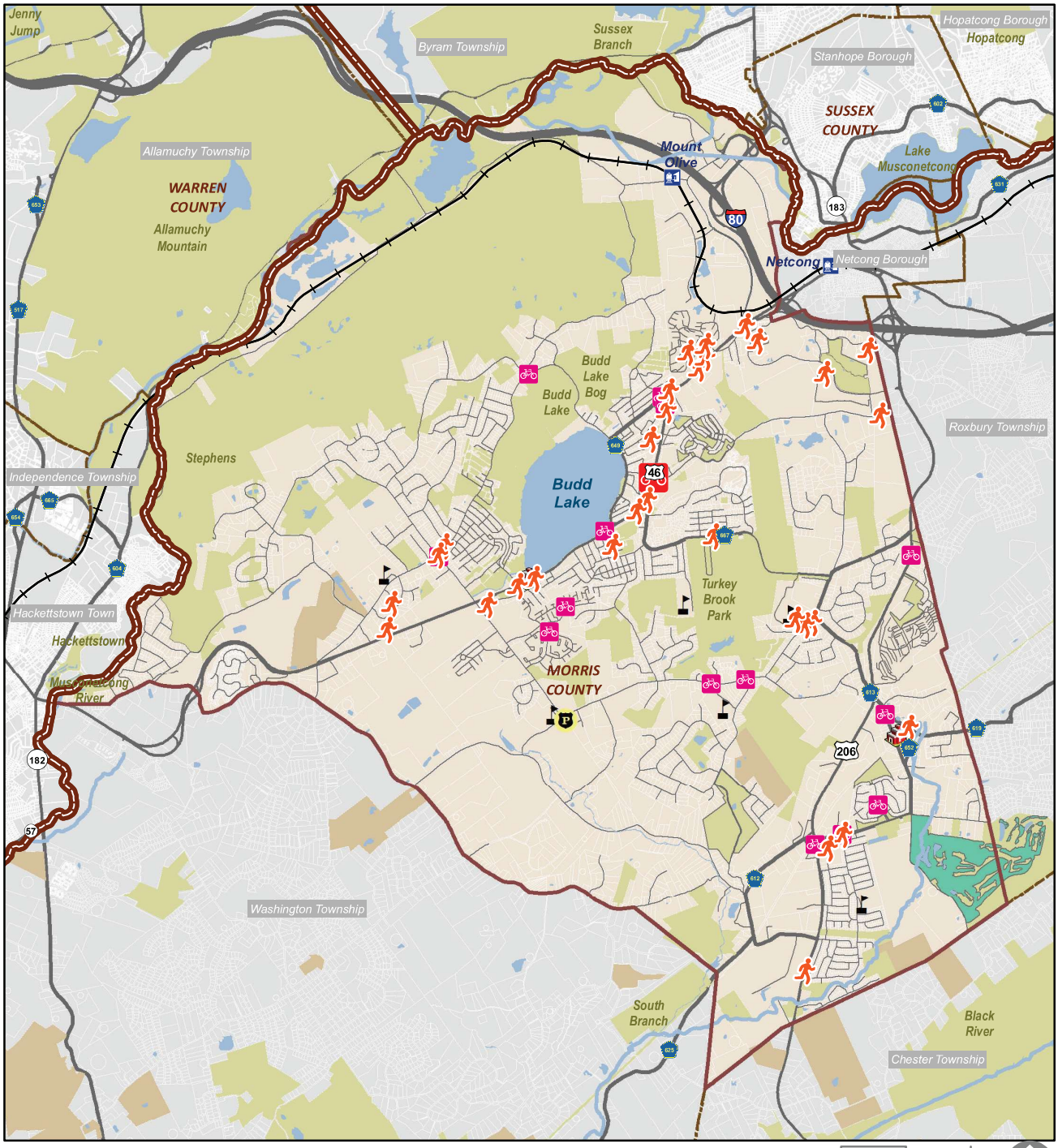
- High School, Turkey Brook Park
- ITC Crossing
- Route 206 & Columbia Trail
- Budd Lake (Route 46, Wolfe Road, and Sandshore Road)
- Waterloo Valley Road

1 Plan4Safety, the web-based platform for querying, analyzing, and displaying results from NJDOT's crash database, was hosted by the Center for Advanced Infrastructure and Transportation (CAIT) at Rutgers University. Plan4Safety has been replaced by NJDOT's Safety Voyager.

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

BICYCLE & PEDESTRIAN CRASHES (2006-2015)

WORKING DRAFT
For Discussion Purpose Only



Legend

- Pedestrian Crashes (37)
- All Bicycle Crashes (17)
- Fatal Bicycle Crash (1)
- Mt Olive Township
- Neighboring Municipalities
- County Border
- Public Parks and Land
- Preserved Farmland
- Water Body
- Rivers / Streams
- Schools
- Fire Stations
- Police
- Flanders Valley Golf Course
- ROSI-Conservation Easement

0 0.5 1 Miles

Sources: The Land Conservancy of New Jersey, Mount Olive Township, NJDEP, NJDOT, Plan4Safety

Recommendations & Planning Concepts

The visioning process, the analysis of existing conditions, and input from the Steering Committee, residents, and other stakeholders guided the development of planning recommendations. These recommendations focus on links between trails, key trip generators, safety, and access for bicycle and pedestrian travel. All of the concepts produced were reviewed with Mount Olive Township. Those concepts that received Township support were presented to the public and are featured in this section.

Key Recommendations

Several key Township-wide recommendations were identified in addition to location-specific concepts. These recommendations complement the individual recommendations and strengthen the success of the bicycle and pedestrian network:

- Trail Mapping (web updates, conditions)
- Mile Markers (roads and trails)
- Trail Head Improvements (signs & parking accommodation)
- Wayfinding
- Development Connections
- Complete Streets Policy

Planning Concepts

The pages that follow highlight specific recommendations identified as part of the planning process. The graphic on the following page is a summary of all of the recommendations with their approximate locations pinpointed on a map of the Township. Individual concept illustrations are provided for each.

Complete Streets Implementation Matrix/Typical Costs

This document also includes a matrix of typical facility-types and costs associated with common design solutions for Complete Streets implementation. See **Appendix K**. The matrix provides planning guidance indicating typical agencies or lead organizations responsible for implementation of varying types of design solutions, and indicates a general timeframe for each.

Potential Funding Sources

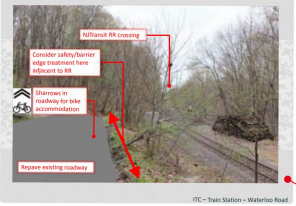
Potential funding sources for recommendations associated with this report have been identified and are included as **Appendix L**.

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

MOUNT OLIVE TOWNSHIP BICYCLE & PEDESTRIAN PLAN

Study Recommendations

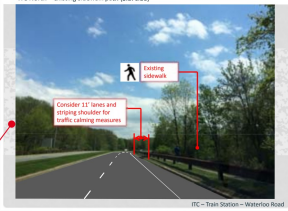
Waterloo Valley Rd / Stephen's State Park – at NJTransit R.R. track crossing



Waterloo Valley Rd / Stephen's State Park – repave & sharrows

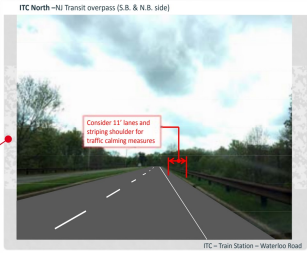
Waterloo Valley Road / Train Station – existing sidewalk path at R.R. tracks (S.B. side)

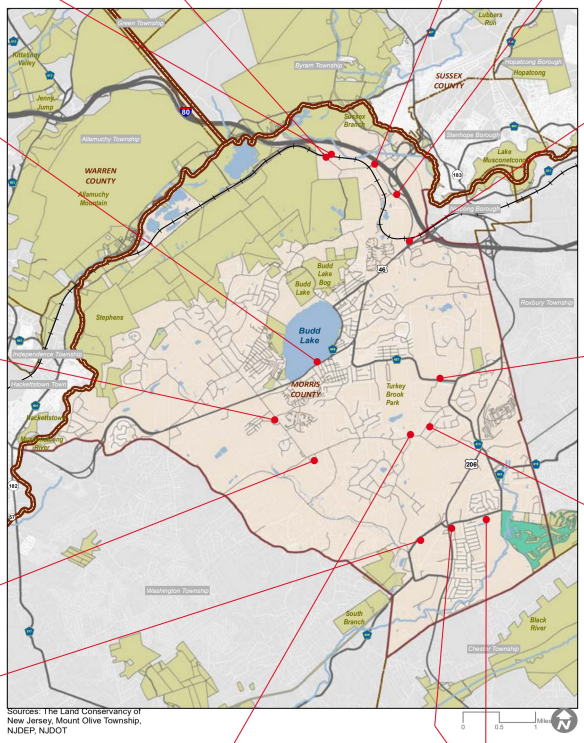
ITC North – existing sidewalk path (S.B. side)



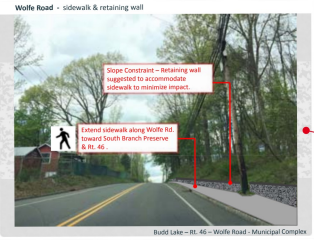
Rt. 46 S.B. & N.B. - sidewalk consideration

ITC North –NJ Transit overpass (S.B. & N.B. side)

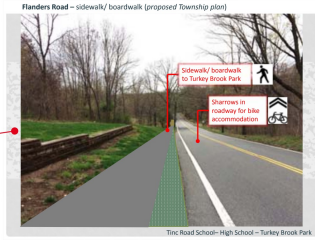




Wolfe Road - sidewalk & retaining wall



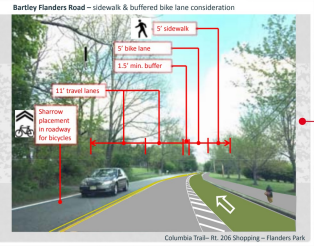
Flanders Road – sidewalk/ boardwalk (*proposed Township plan*)



Library - pedestrian access

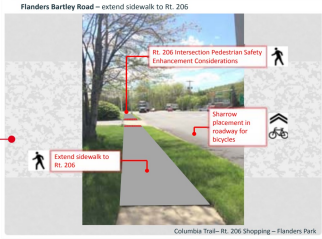
Corey Road – existing conditions

Bartley Flanders Road – sidewalk & buffered bike lane consideration



Flanders Drakestown Road – extend sidewalk to Corey Road (*proposed township plan*)

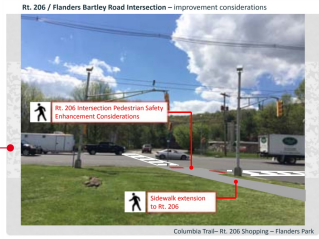
Flanders Bartley Road – extend sidewalk to Rt. 206



Bartley Flanders Road – sidewalk & sharrows

Flanders Park – existing sidewalk along Flanders Bartley Road

Rt. 206 / Flanders Bartley Road Intersection – improvement considerations



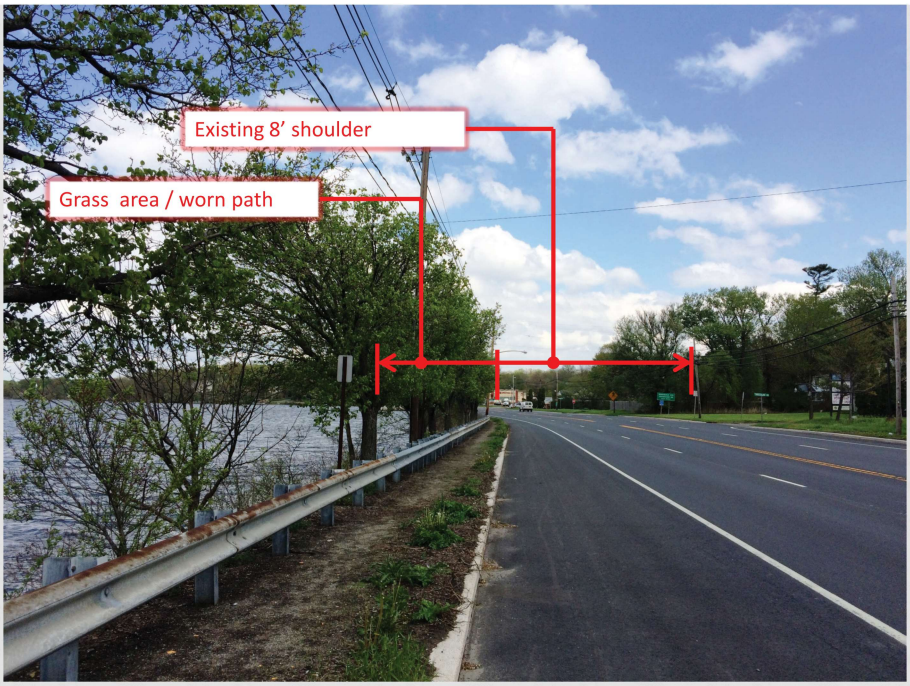
For clarity, see pages 12 - 26 for individual planning recommendations.

BUDD LAKE - ROUTE 46 - WOLFE ROAD - MUNICIPAL COMPLEX

ROUTE 46 SOUTHBOUND

Existing Conditions

Rt. 46 S.B. - existing conditions

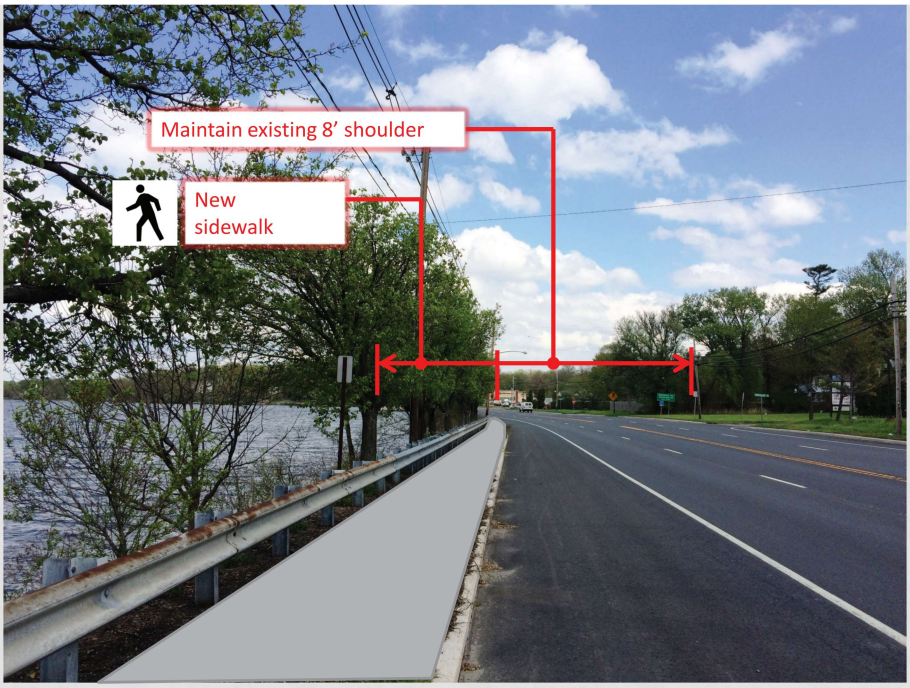


Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

- Existing 8' wide paved shoulder
- Pedestrians currently walk on the grass along the guide rail

Recommendations & Concepts

Rt. 46 S.B. - sidewalk consideration



Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

- Provide new sidewalk along Rt. 46 for pedestrian accommodation

BUDD LAKE - ROUTE 46 - WOLFE ROAD - MUNICIPAL COMPLEX

WOLFE ROAD

Existing Conditions

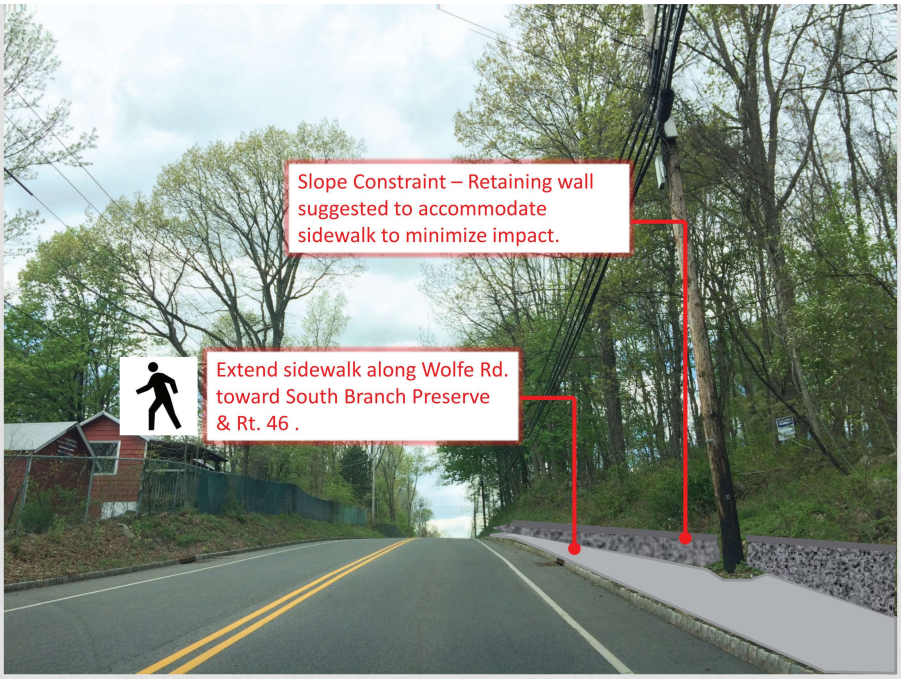
Wolfe Road - existing ROW slope constraint

Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

- No existing sidewalk or other pedestrian accommodations along Wolfe Road

Recommendations & Concepts

Wolfe Road - sidewalk & retaining wall



Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

- Provide sidewalk accommodation
- Install retaining wall to minimize impacts

BUDD LAKE - ROUTE 46 - WOLFE ROAD - MUNICIPAL COMPLEX

LIBRARY

Existing Conditions

Library - existing conditions

Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

- No sidewalks or other pedestrian accommodations to or from the Library

Recommendations & Concepts

Library - pedestrian access

Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

- Provide sidewalk and crosswalk to create pedestrian link between Municipal Building and Senior Center

COLUMBIA TRAIL - ROUTE 206 SHOPPING - FLANDERS PARK

FLANDERS PARK

Recommendations & Concepts

Flanders Park – existing sidewalk along Flanders Bartley Road

Columbia Trail– Rt. 206 Shopping – Flanders Park

- Consider bicycle accommodation along Flanders Bartley Road to complement existing sidewalk.

COLUMBIA TRAIL - ROUTE 206 SHOPPING - FLANDERS PARK

FLANDERS BARTLEY ROAD

Existing Conditions

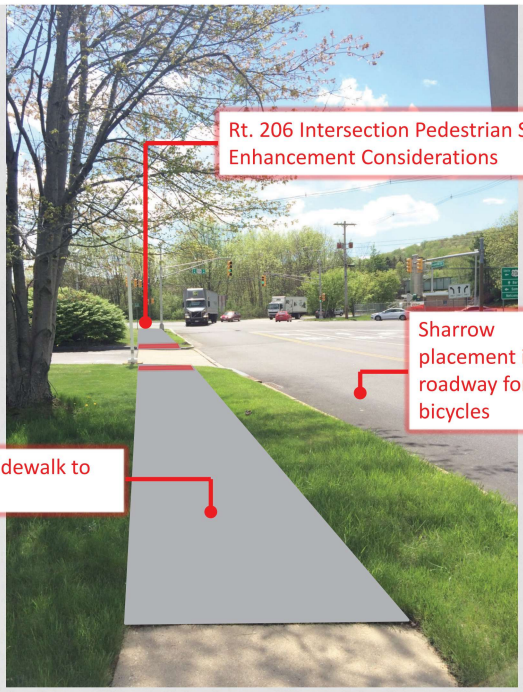
Flanders Bartley Road – existing conditions approaching Rt. 206

Columbia Trail– Rt. 206 Shopping – Flanders Park

- Existing sidewalk ends abruptly

Recommendations & Concepts

Flanders Bartley Road – extend sidewalk to Rt. 206



Columbia Trail– Rt. 206 Shopping – Flanders Park

- Extend sidewalk toward Route 206 intersection
- Consider bicycle acommodation in road to complement pedestrian accommodation

COLUMBIA TRAIL - ROUTE 206 SHOPPING - FLANDERS PARK

ROUTE 206/FLANDERS BARTLEY ROAD

Existing Conditions

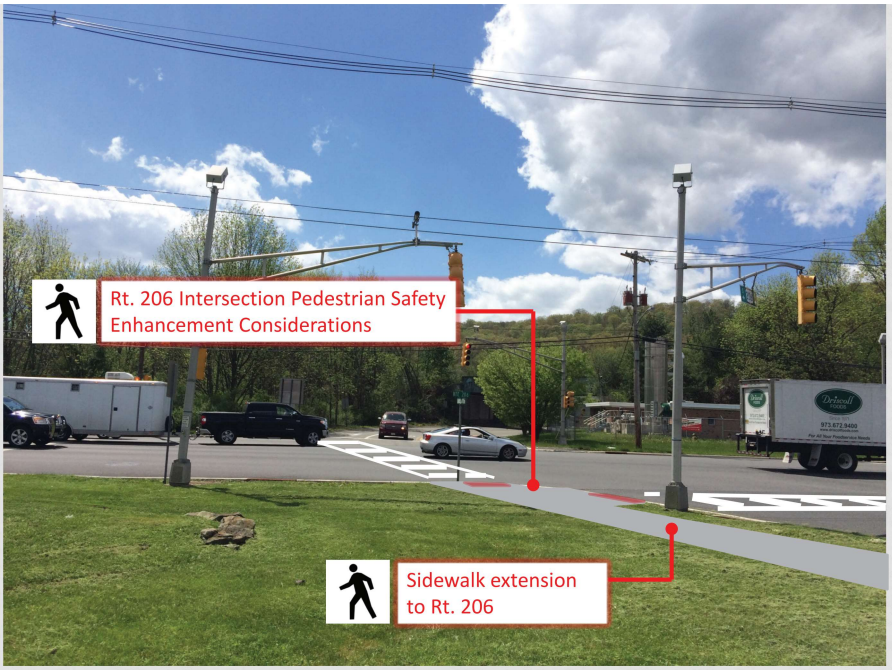
Rt. 206 / Flanders Bartley Road Intersection – existing conditions

Columbia Trail– Rt. 206 Shopping – Flanders Park

- No existing pedestrian safety accommodations at intersection

Recommendations & Concepts

Rt. 206 / Flanders Bartley Road Intersection – improvement considerations



Columbia Trail– Rt. 206 Shopping – Flanders Park

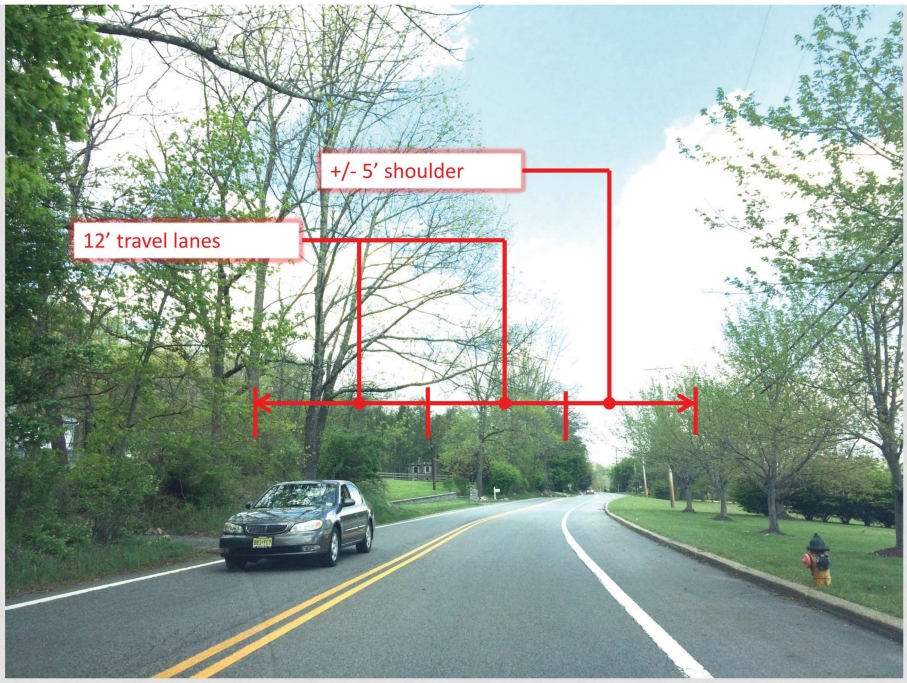
- Provide sidewalk connection along Flanders Bartley Road and pedestrian safety enhancements to intersection

COLUMBIA TRAIL - ROUTE 206 SHOPPING - FLANDERS PARK

BARTLEY FLANDERS ROAD

Existing Conditions

Bartley Flanders Road – existing conditions

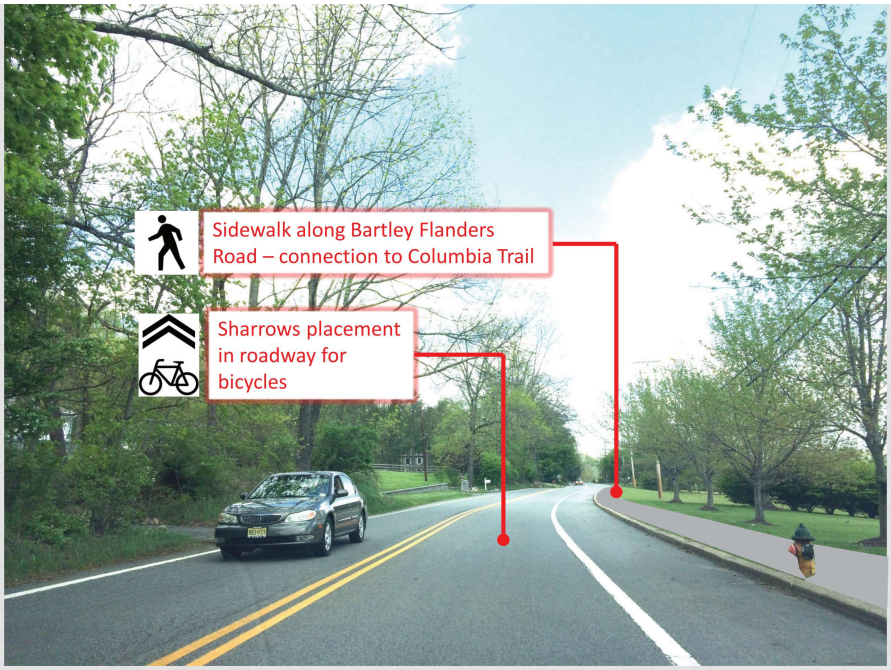


Columbia Trail– Rt. 206 Shopping – Flanders Park

- No existing pedestrian or bicycle accommodations

Recommendations & Concepts

Bartley Flanders Road – sidewalk & sharrows



Columbia Trail– Rt. 206 Shopping – Flanders Park

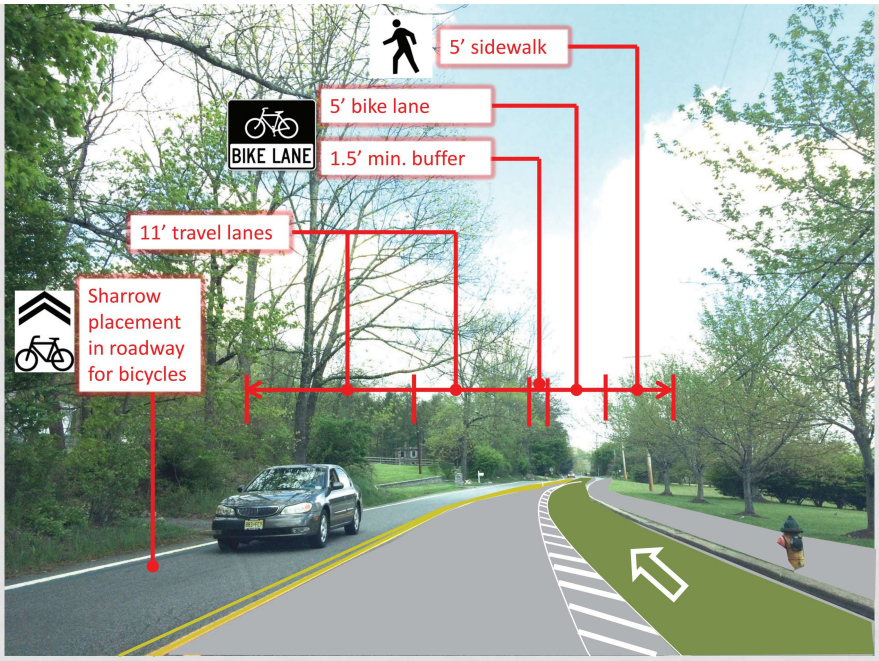
- Provide sidewalk for pedestrians and consider sharrows for bicyclists

COLUMBIA TRAIL - ROUTE 206 SHOPPING - FLANDERS PARK

BARTLEY FLANDERS ROAD

Recommendations & Concepts

Bartley Flanders Road – sidewalk & buffered bike lane consideration



Columbia Trail– Rt. 206 Shopping – Flanders Park

- Provide sidewalk for pedestrian accommodations and a buffered bike lane

TINC ROAD SCHOOL - HIGH SCHOOL - TURKEY BROOK PARK

FLANDERS RD

Existing Conditions

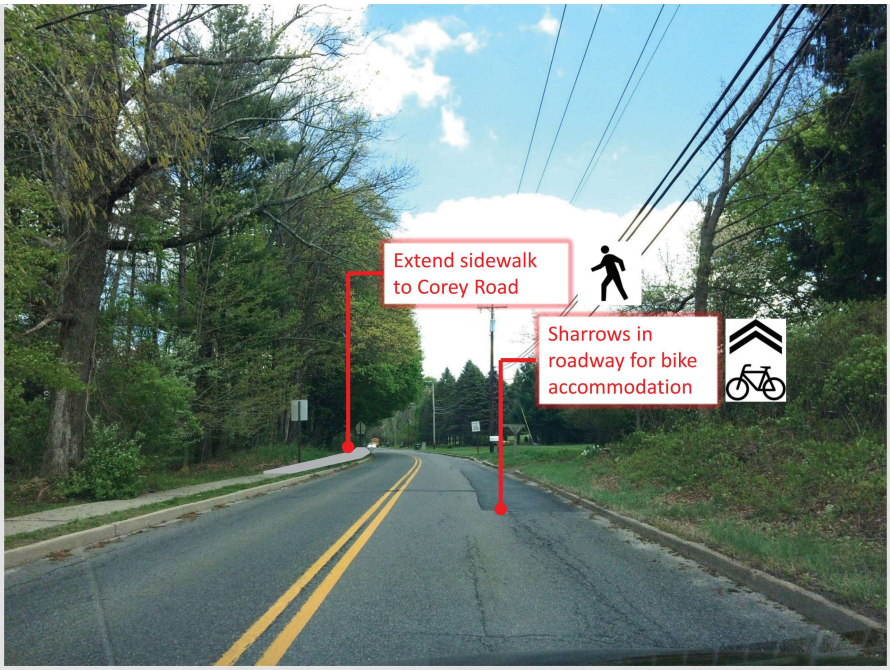
Flanders Drakestown Road – existing conditions

Tinc Road School– High School – Turkey Brook Park

- No existing pedestrian or bicycle accommodations

Recommendations & Concepts

Flanders Drakestown Road – extend sidewalk to Corey Road (*proposed township plan*)



Tinc Road School– High School – Turkey Brook Park

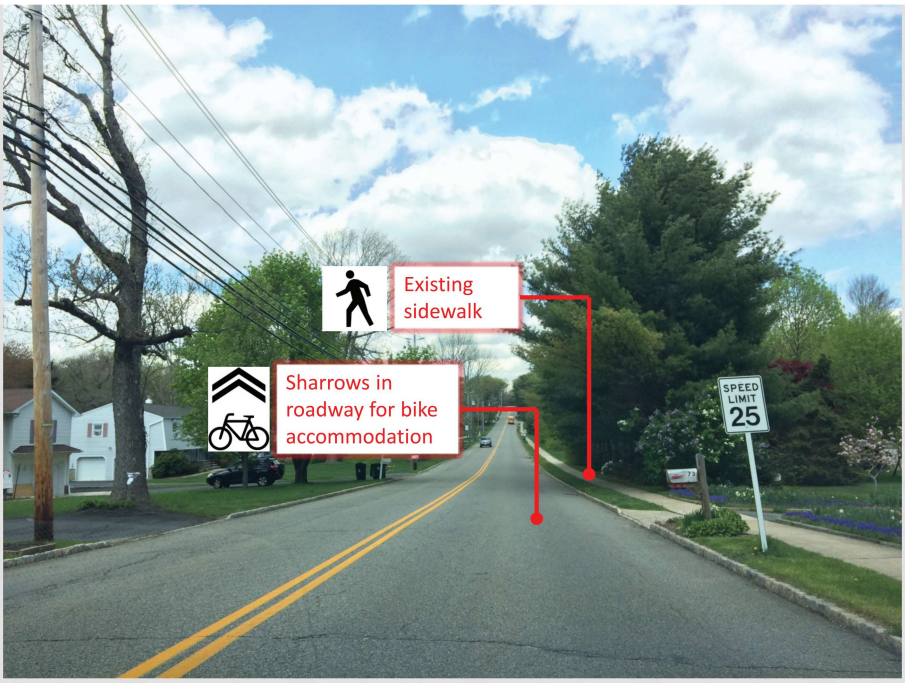
- Provide sidewalks for pedestrians
- Consider sharrows for bicycle accommodation

TINC ROAD SCHOOL - HIGH SCHOOL - TURKEY BROOK PARK

COREY ROAD

Recommendations & Concepts

Corey Road – existing conditions



Tinc Road School– High School – Turkey Brook Park

- Consider sharrows for bicycle accommodation to complement existing sidewalk

TINC ROAD SCHOOL - HIGH SCHOOL - TURKEY BROOK PARK

FLANDERS ROAD

Existing Conditions

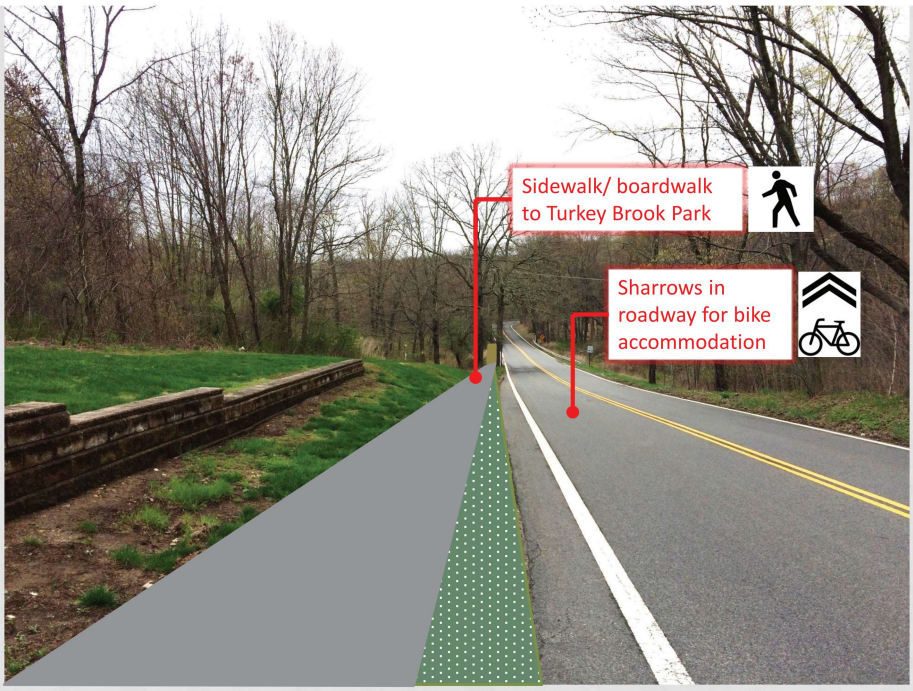
Flanders Road – existing conditions

Tinc Road School– High School – Turkey Brook Park

- No existing pedestrian or bicycle accommodations near High School

Recommendations & Concepts

Flanders Road – sidewalk/ boardwalk (*proposed Township plan*)



Tinc Road School– High School – Turkey Brook Park

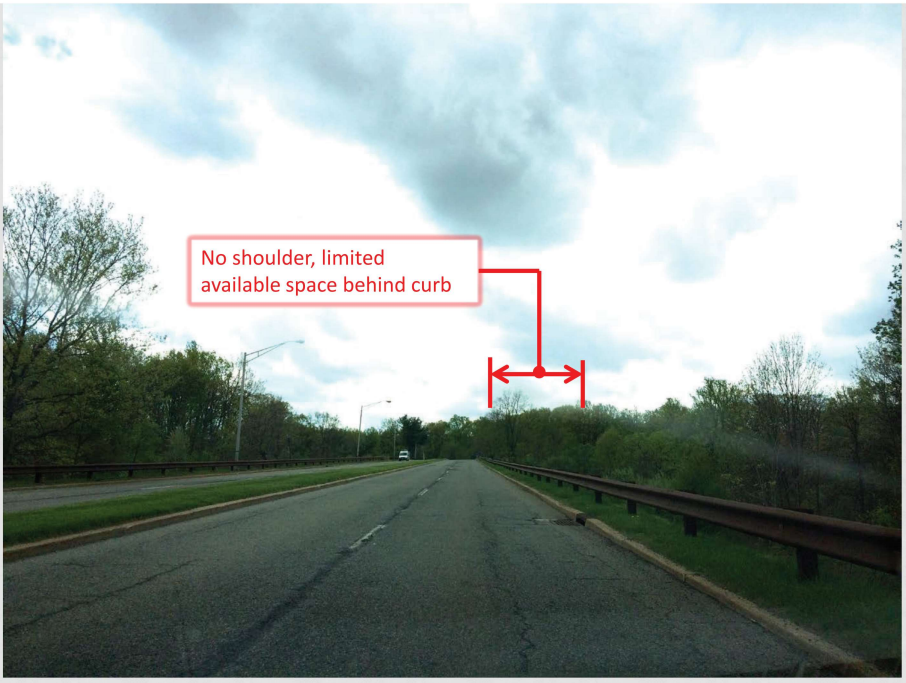
- Provide sidewalk/ boardwalk for pedestrian accommodation
- Consider sharrows for bicycle accommodation

ITC - TRAIN STATION - WATERLOO

ITC NORTH

Existing Conditions

ITC North – existing NJ Transit overpass (S.B. side)

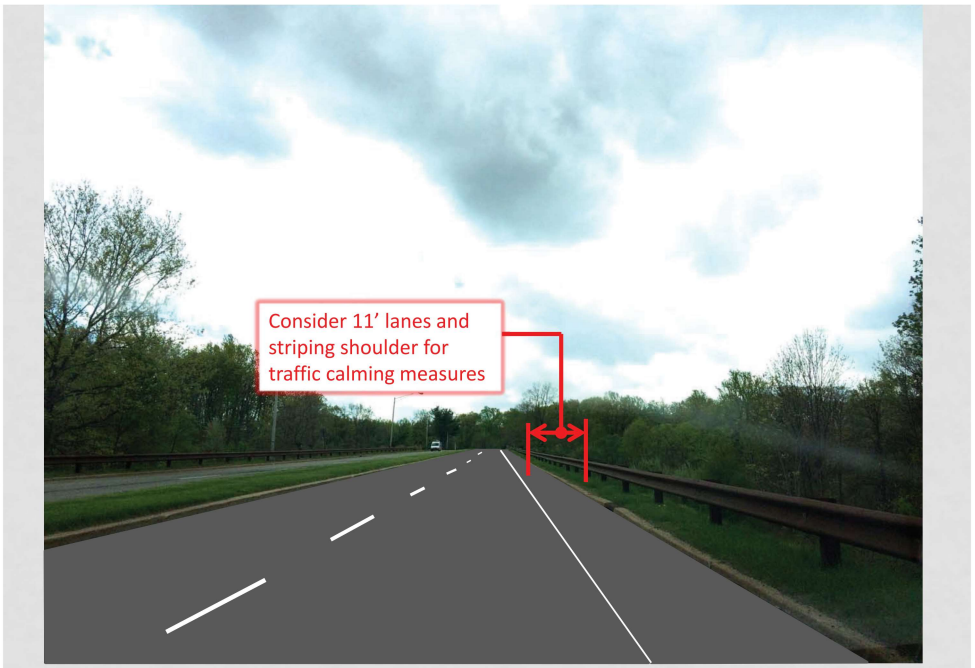


ITC – Train Station – Waterloo Road

- No existing pedestrian or bicycle accommodations

Recommendations & Concepts

ITC North –NJ Transit overpass (S.B. & N.B. side)



ITC – Train Station – Waterloo Road

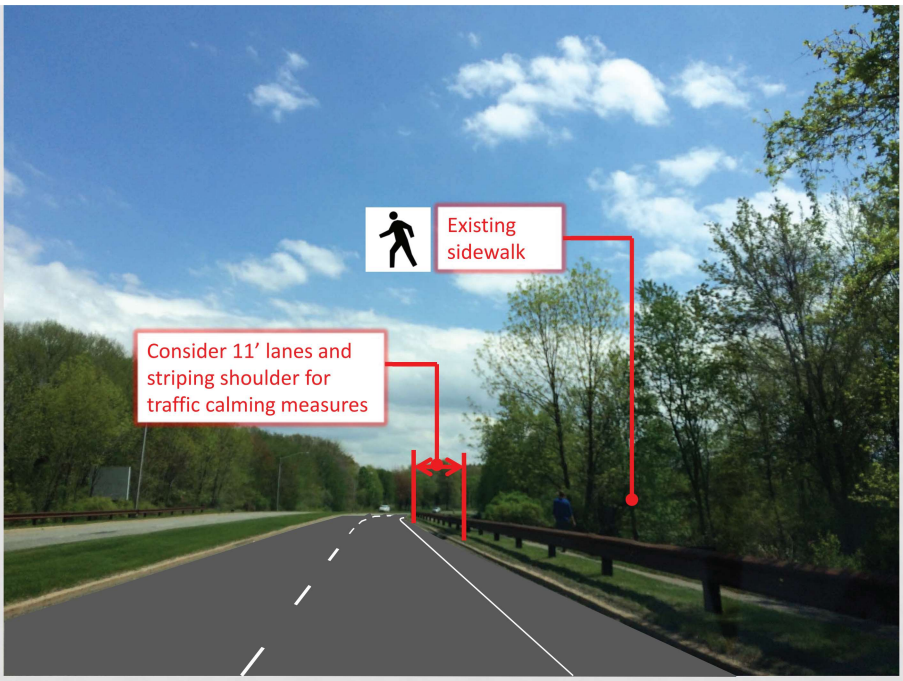
- Restripe road with 11' wide lanes and include a striped shoulder

ITC - TRAIN STATION - WATERLOO ROAD

ITC NORTH

Recommendations & Concepts

ITC North – existing sidewalk path (S.B. side)

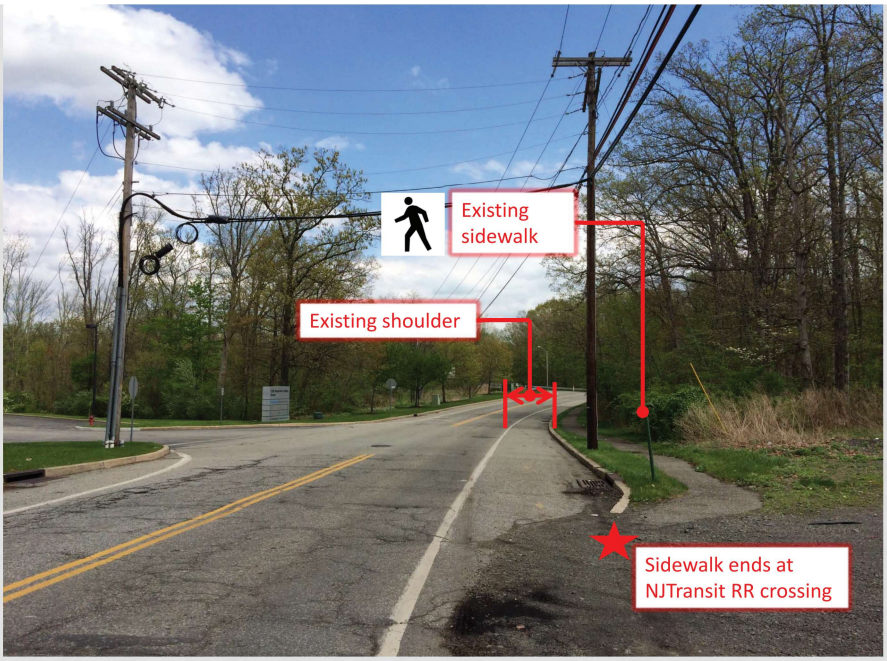


ITC – Train Station – Waterloo Road

- Restripe road with 11' wide lanes and include a striped shoulder

Recommendations & Concepts

Waterloo Valley Road / Train Station – existing sidewalk path at R.R. tracks (S.B. side)



ITC – Train Station – Waterloo Road

- Existing shoulder and sidewalk at NJTransit RR crossing

ITC - TRAIN STATION - WATERLOO

WATERLOO VALLEY ROAD / TRAIN STATION

Existing Conditions

Waterloo Valley Rd / Stephen's State Park – existing roadway conditions

ITC – Train Station – Waterloo Road

- Existing roadway section

Recommendations & Concepts

Waterloo Valley Rd / Stephen's State Park – repave & sharrows

ITC – Train Station – Waterloo Road

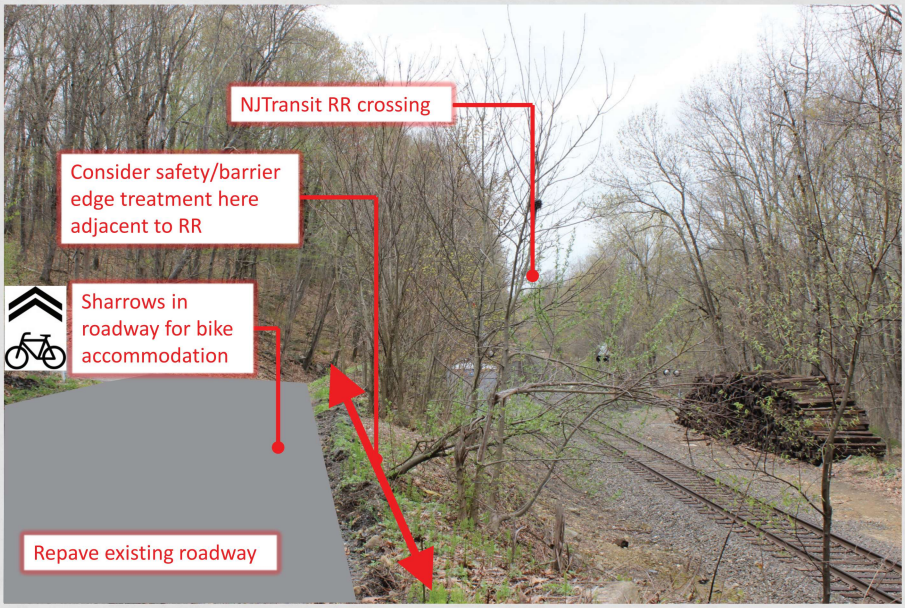
- Resurface existing pavement and provide sharrows to accommodate bicyclists

ITC - TRAIN STATION - WATERLOO

WATERLOO VALLEY ROAD / TRAIN STATION

Recommendations & Concepts

Waterloo Valley Rd / Stephen's State Park – at NJTransit R.R. track crossing



ITC – Train Station – Waterloo Road

- Provide sharrows for bicycle accommodation and a safety barrier for protection from the adjacent slope and railroad tracks

Complete Streets

Implementing Complete Streets Policy in Mount Olive Township

In 2012, Mount Olive Township prepared a resolution establishing a "Complete Streets" Policy. The resolution states that all public street projects, both new construction and reconstruction (excluding maintenance) undertaken by the Township shall be designed and constructed as Complete Streets whenever feasible to do so, in order to safely accommodate travel by pedestrians, bicyclists, other forms of alternate transportation, public transit, and motorized vehicles and their passengers, with special priority given to pedestrian safety. While this resolution establishes the Township's desire to promote and incorporate this policy, it lacks further definition on implementation. This section provides guidance for implementing Complete Streets policy within the Township.

Codes and Ordinances

The Township can adopt codes and ordinances to establish pedestrian and bicycle responsibilities. Actions to consider include:

- Formally assign pedestrian and bicycle accommodations within the purview of appropriate department (e.g. engineering or planning). Assign staff to address pedestrian and bicycle issues.
- Create a Complete Streets advisory group to advise staff and agencies (e.g. planning board, zoning board) on projects and programs to address pedestrian and bicycle needs.

- List "active transportation" as an element of the comprehensive health program to be developed and implemented by the department of health or other similar unit.
- Provide training and information on bicycle and pedestrian laws and operations to the public and staff.
- Establish a police on bikes unit.
- Don't include mandatory (or remove provisions that mandate) bicycle licensing or registration requirements.
- Don't implement (or remove provisions that implement) bike bans (e.g. restrictions on biking to school).
- Adopt a bicycle parking ordinance that requires bicycle parking as part of new development and redevelopment, within public parking lots and garages, and at key commercial or commuter locations.
- Prohibit bicycle parking on sidewalks, sidewalk areas, and bicycle travel facilities.
- Seek status as a Bicycle Friendly Community from the League of American Bicyclists (www.bikeleague.org).
- Seek status as a Walk Friendly Community from the Walk Friendly Communities national recognition program (www.walkfriendly.org).

Land Use and Zoning

Mount Olive Township can integrate Complete Streets principles into land use decisions. Actions to consider include:

- Establish and inform developers of requirements for bicycle and pedestrian access and safety and what is to be included in site development and subdivision plans.
- Encourage mixed use development.
- Provide options for pedestrian and bicycle-friendly streetscapes and roadway design requirements.
- Provide incentive(s) for bicycle and pedestrian amenities in exchange for increased floor area ratio, additional square footage, and reduced parking requirements.
- In shopping centers, offer incentives for architectural treatments that protect pedestrians from the elements, such as canopies.
- Require applicants to complete missing sidewalks as a condition for site plan and zoning approvals.

Master Plans and Planning Studies

The Township can include bicycle and pedestrian access and safety in all planning activities, including the master plan updates, redevelopment plans, and the transportation element. These plans should:

- Identify existing and proposed elements of the bicycle and pedestrian network.
- Inventory problem locations and gaps in network.
- Identify crash locations involving pedestrians and bicyclists.
- Include specific recommendations for pedestrian and bicycle facilities.
- Incorporate or refer to standards, specifications, and design guidelines.
- Identify funding responsibility for proposed improvements.
- Encourage the linking of residential development and commercial areas or other residential areas, even when no roadway linkages are present, by means of segments of shared use paths.
- Consider traffic calming elements such as landscaping, street trees, and narrowing of lanes where safe and appropriate.
- Lower speed limits, which may require implementation of traffic calming devices, such as speed humps or signs and striping. Speed humps are an example of active traffic calming devices. Signs and striping are an example of passive traffic calming devices.

Project Development Flowchart & Checklists

A key to Complete Streets implementation is the timely and effective translation of good policy intentions into real world improvements, which include capital projects, maintenance and operational procedures, resurfacing, and access considerations during construction or repair work. This is known as the project development and delivery process.

For Mount Olive Township, an effective project development and delivery process must be explicit, directional, and critical. The process is explicit in that it is clearly and purposefully developed, communicated, and implemented throughout the Township. It is directional in that it encompasses a flow of communication from conception to completion. It is critical in that it subjects improvement concepts to scrutiny, review, revision, and/or approval by an appropriate body. The approving body may be a department within the Township, such as Community Development, or a Complete Streets Implementation (CSI) Committee with informed members from a cross section of departments (such as planning, engineering, public works, or code enforcement) and elected officials (such as planning board or council members). For the purposes of this discussion, the term CSI Committee will be used to identify the approving body within this flowchart.

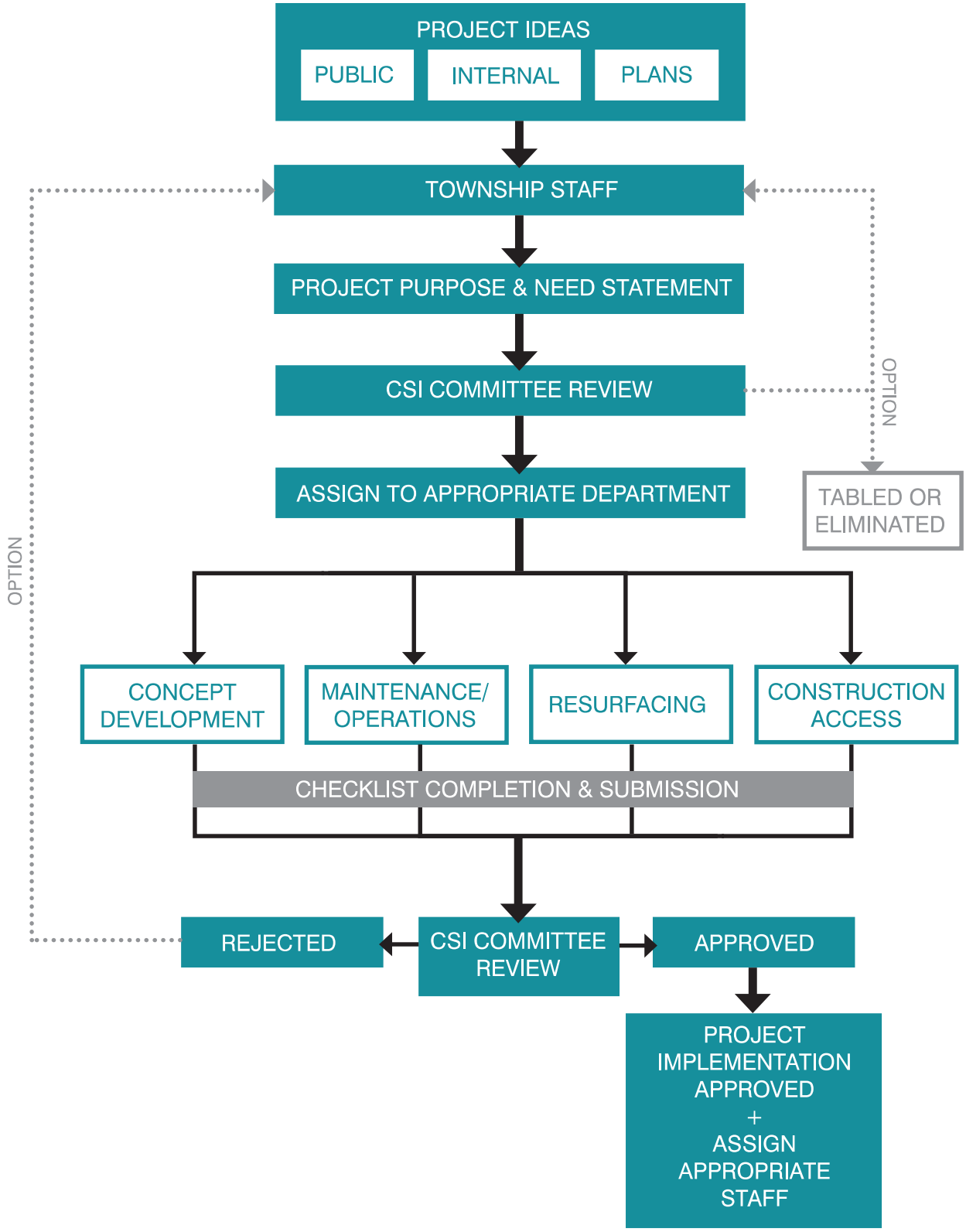
It is anticipated that the Township would receive Complete Streets project ideas from a variety of sources. These sources may include public input, staff input, formal planning efforts, and others.

To initiate the process, a project "Purpose and Need Statement" would be completed by an initiator of the proposed project (either internal to the Township, or an external party with a vested interest). The project purpose and need statement describes the proposed project area, existing conditions, local context, the purpose for implementing a change within the project area, and the need for such change. Project ideas can be screened by appropriate Township staff to offer an initial assessment of validity prior to the preparation of a project purpose and need statement.

Once submitted, the project purpose and need statement is reviewed by the CSI Committee, and if approved, assigned to the appropriate Township department. Once assigned to appropriate department, the Complete Streets implementation checklists, which indicate whether the proposed work complies with the Complete Streets policy, are completed by the project manager and submitted for review to the CSI Committee.

If the project does not comply with the Complete Streets policy, the CSI Committee may reject the project or has the option to cycle it back to appropriate staff. If the project complies with Complete Streets policy, the CSI Committee may approve it for implementation, as assigned to appropriate staff. A flowchart diagram of the project development and delivery program is provided on the following page. Additionaly, sample Complete Streets Checklists for use by staff are provided as **Appendix J.**

COMPLETE STREETS PROJECT DEVELOPMENT FLOWCHART



Appendices

A. Steering Committee Kickoff Meeting

B. Visioning Outreach Summary

C. Field Visit & Photo Log

D. Steering Committee Meeting #2

E. Status Meeting

F. Public Outreach Summary

G. Public Survey Summary

H. Data Summary Memorandum

I. Complete Streets Resolution

J. Complete Streets Checklists

K. Complete Streets Implementation Matrix/Typical Costs

L. Potential Funding Sources

Appendix A: Steering Committee Kickoff Meeting

MEMORANDUM OF MEETING

TO: Memo for Record
FROM: Dede Murray with input from NV5 members:
Denice daCunha, Charles Cunion, Rachana Sheth
DATE: 01/12/2017 at 1:00 pm Mount Olive Township Council Chambers

ATTENDEES: See attached Sign-In Sheet

SUBJECT: Mount Olive Bicycle and Pedestrian Plan Steering Committee Kick-off
NV5, Inc. Project # J728616.0000095.02

The purpose of the meeting was to kick off the Mount Olive Bicycle and Pedestrian Plan project with the Steering Committee (SC) to discuss the project scope and schedule, to exchange information, gather consensus on priorities, to discuss methods for community outreach, and receive committee member input. The following summarizes the major items of discussion from the kick-off meeting. The attendee list, attendee invite letter, PowerPoint presentation (which includes the meeting agenda), and progress maps discussed at the meeting are attached.

Denice daCunha, NV5 Project Manager, initiated the meeting with introductions and the start of the attached PowerPoint presentation. William Riviere, NJDOT Bicycle and Pedestrian Programs Project Manager, discussed how the project was funded and thanked Laura Harris, Mount Olive Business Administrator, for her efforts in coordinating the project with NJDOT. He explained that the success of the project would be related to the exchange of information and input from the SC and locals.

The PowerPoint presentation detailed the project scope and vision noting that these efforts were part of the Planning Phase and would identify future potential projects. A preliminary Virtual Tour exercise using Google Earth and an introduction to Wiki Mapping were performed by Charlie Cunion, NV5, to demonstrate project tools and garner feedback from the SC in order to prioritize five locations for treatment.

Steering Committee Input and Recommendations:

- Mount Olive High School and Elementary School need safe connections to Turkey Brook Park. There are no facilities or treatments for bicycling and walking connecting these areas. Students are currently walking on the road. Mount Olive Engineering has already created concepts for a network
- Safe Routes to School applications are in place. They are awaiting feedback on application status. Current SRTS plans include crossing guards at 5 locations throughout the Township.

7 Campus Drive, Suite 300 | Parsippany, NJ 07054 | www.nv5.com | office 973.946.5600 | fax 973.984.5421
Construction Quality Assurance - Infrastructure - Energy - Program Management - Environmental

NV5
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- It was noted that busing for students in Mount Olive are only provided for students outside of the 2 mile radius of the school.
- It was recommended that any trail connections from schools to Turkey Brook Park should be maintained for year-round use.
- Wetlands protection will have to be considered for the development of connections to Turkey Brook Park.
- Parking facilities for the Turkey Brook Greenway are sufficient.
- Other than the Braille Trail, no updates have been made since the Trails Plan.
- The proposed 2009 Bicycle Route consisted primarily of areas where bicyclists ride in town. It was also the focus of a previous event called Tour de Mount Olive
- The High Point to Cape May Bike Route through the Township is not practical for the average rider and did not receive full support from Mount Olive representatives. The NV5 Team noted that sections of the High Point to Cape May route, such as sections within Mount Olive, are not intended for the casual or average rider but the more experienced rider.
- There are disparate enclaves that need connections to create complete trail networks.
- Flanders-Netcong Road and Corey Road have no sidewalks and a high volume of runners.
- Adding a sidewalk that connects Corey Road to 513 should be considered.
- NJTRANSIT bus stops are accessed by Lakeland Bus Service. It was acknowledged that if pedestrian facilities such as sidewalks were provided from residential areas, more residents would likely use bus service, however, most of the centrally located residents do not seem like they would be taking bus transportation to work. This is something that can be better assessed during project (project survey).
- There are no bus stops on Route 46 in between Netcong and Budd Lake. Members of surrounding communities such as Netcong are walking on Route 46 to get to their jobs at the International Trade Center (ITC).
- Elevation changes, water, and/or ROW availability are issues in getting projects implemented.
- Possibility of using Utility- Easement ROW for a mixed-use path was discussed since several sections appear to be suitable when viewed from surrounding roadways. SC voiced concerns over wetlands, elevation changes, and its prohibitive surface conditions noting recent issues with construction vehicles.
- Accurate and accessible maps, along with good signage, are needed for the trail networks in Mount Olive.
- Elevation issues and resultant grading would be concern along railroad spur near Triumph Plastics for the construction of trail networks and facilities.

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- SC members proposed constructing boardwalks through wetland areas to avoid environmental impacts.
- NJ Highlands and NJDEP permit issues have restricted projects in the past.
- Preliminary traffic calming plans are in place for Clover Hill Road which includes adding shoulders, narrow widths, and adding bicycle lanes.
- It was noted that the most popular request from Mount Olive residents is a boardwalk along Budd Lake; however significant environmental impacts and costs have caused such proposals to be halted.
- An inquiry on funding was discussed. NV5 and NJDOT noted that this project is a Planning Level effort to identify future projects (short term and long term) for which the Township could advance through various sources.
- Mount Olive Township Engineer has conducted a sidewalk study and collected ROW information in specific areas, information will be shared with NV5.
- Police Department representative suggested a pedestrian overpass over Routes 46 and 206 in the vicinity of the High School. Currently there are no safe areas to cross either road.

Immediate Action Items:

- A date and time for the Public Visioning Workshop will be coordinated.
- NV5 will draft survey questions for the SC review and approval for use in the project survey, which will request public input.
- NV5 will prepare draft press release for Township use.
- The SC will consider ideas for a logo for Mount Olive Trail Networks
- Suggestions of project ideas pertaining to the Bicycle and Pedestrian Plan should be advertised on the Township Website. Target audiences may include the Boy Scouts, Girl Scouts, and other groups interested in helping to maintain and/or add facilities to the trails.
- SC members suggested the below potential events for Public Outreach (although some are outside the project intended 6 month duration). The SC will look into others, such as school events, for consideration.
    - Lego Event
    - Cabin Fever Reliever
    - High School Robotics Event
    - Color Run
    - Fairy and Pirate Festival
    - Relay for Life

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Figure 1: Conducting Virtual Map Tour

Figure 2: Conducting PowerPoint Presentation

Figure 3: Steering Committee

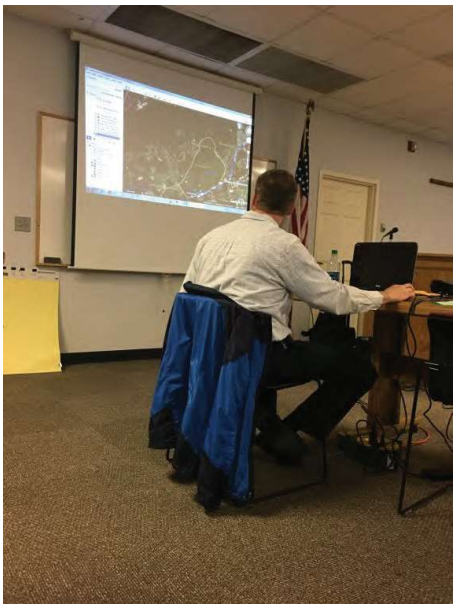

Figure 4: Identifying concept areas

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Attachments:

- Attendee List
- Attendee Invite Letter
- PowerPoint Presentation (with Meeting Agenda)
- Meeting Photos
- Maps:
  - Bicycle and Pedestrian Crash Reports
  - Location Map
  - Study Area Map

1/12/2017

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

STEERING COMMITTEE – KICK-OFF MEETING

NAME	ADDRESS	EMAIL ADDRESS
Denice daCunha	NV5 / The RBA Group	Denice.daCunha@nv5.com
William Riviere	NJDOT	william.riviere@dot.nj.gov
Rachana Sheth	NV5	Rachana.Sheth@NV5.com
CHARLIE CUNION	NV5	Charles.Cunion@NV5.com
DENNIS BRIEDE	19 BOONTON AVE MONTVILLE NJ	DBRIEDE@JLC-NJ.ORG
MIKE POCQUAT	4 TRIUMPH CT. FLANDERS NJ	MPOCQUAT@MTOLIVETWP.OR
Kathy Murphy	31 Camelot, Budd Lake NJ 07828	kkmurphy1@optonline.net
Daniel Damiano	10 Camp Pulaski Rd Budd Lake, NJ	damiande@optimum.net
Laura Harris	204 Flanders Drakestown Rd, Budd Lake, 07828	LHarris@mtolivetwp.org
Claudia Tomarello	204 Flanders-Drakestown Rd Bdl 07828	Ctomarello@mtolivetwp.org
Lisa Brett	204 Flanders-Drakestown Rd MtOlive 07828	lbrette.mtolivetwp.org
Paul Kitna	16 Hawkwicht Rd Flanders NJ 07836	PLKITNA@NJLEG.ORG
Jill Daggan	Recreation Dept	jdaggan@mtolivetwp.org
Jim Quinn	DPW	JQUINN@MTOliveTwp.org

NV5 formerly RBA

1/12/2017

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

STEERING COMMITTEE – KICK-OFF MEETING

NAME	ADDRESS	EMAIL ADDRESS
Carmanine Natafalusy	204 Flanders Drakestown Rd	CNATAFALUSY@MTOLIVETWP.ORG
Stephen Beecher	Mt. Olive Police Dept./Chief	sbeecher@mopd.org
Michael Spitzer	Mt. Olive Police Dept./Captain	mikespitzer@mopd.org
Nick Cutro	MT OLIVE MIDDLE SCHOOL	NCUTRO@MTOLIVEBOE.ORG
Glenn Miller	MT Olive Board of Education	gmiller@mtoliveboe.org
Jim Lynch	Mt. Olive Township Parks	jlynch@mtolivetwp.org
Dede Murray	NV5	elizabeth.murray@nv5.com

NV5 formerly RBA

State of New Jersey
DEPARTMENT OF TRANSPORTATION
1035 Parkway Avenue
PO Box 600
Trenton, New Jersey 08625-0600

Chris Christie
Governor
Kim Guadagno
Lt. Governor

Richard T. Hammer
Commissioner

December 20th, 2016

RE: Mount Olive Bicycle & Pedestrian Plan, NJDOT Bicycle & Pedestrian Planning Assistance Project Kick-Off Meeting with Steering Committee

Dear Interested Mount Olive Stakeholder:

With this letter I would like to invite you, or one of your organization's designees, to participate as a key stakeholder in the development of a Bicycle and Pedestrian Plan for the Township of Mount Olive.

The Township of Mount Olive was selected by New Jersey Department of Transportation to receive Local Technical Assistance to create a plan which, when implemented, will increase benefit the community and promote bicycle and pedestrian travel in the Township.

The purpose of the project is to review Mount Olive's current vast trail network to understand the extent to which connections are needed, provide a vision of trail linkages between major destinations and plan for future pathway opportunities. The Plan will also recommend future projects and develop planning level concepts along linkages within the network. The emphasis will be on connecting existing trails that are widely used for bicycling and walking and on identifying key missing links.

You (or a key member of your organization) are invited to participate on a Project Steering Committee for this exciting project. The Steering Committee is an important resource for project development. Committee members will provide background information, assist in public outreach, and review documents.

As part of your involvement, we will be requesting your attendance and participation in two Steering Committee meetings and two public workshops over the next six months. In addition, you will also be requested to review the Draft Plan.

The project team, comprised of NJDOT, the Township of Mount Olive, and NV5, looks forward to your knowledgeable input throughout the process. The **Project Steering Committee Kick-Off Meeting** has been scheduled for **January 12th, 2017** at **1pm** at the **Municipal Building at 204 Flanders-Drakestown Rd, in Mount Olive**.

If you are willing and able to serve as a member, and can attend the Project Kick-off Meeting on January 12th, 2017, please confirm your participation by contacting Laura Harris, Mount Olive Township Business Administrator (lharris@mtolivetwp.org), by January 6th, 2017.

If you have any questions, please feel free to contact me.

Thank you for considering this invitation. I hope you are able to participate in this exciting project. I look forward to working with you on this project to improve the walking and bicycling conditions in Mount Olive Township.

Very truly yours,

William Riviere
Project Manager, NJDOT Bicycle & Pedestrian Programs
609-530-4646
William.Riviere@dot.nj.gov

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1/12/2017

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

STEERING COMMITTEE KICK-OFF MEETING

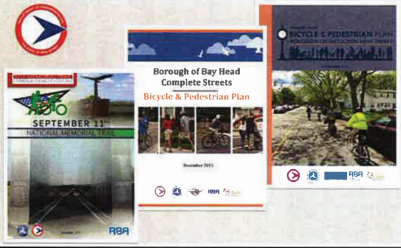
January 12, 2017 @ 1:00 p.m.
Mount Olive Municipal Building

NV5

AGENDA

- Welcome / Introductions
- NJDOT Local Bicycle and Pedestrian Planning Assistance Program
- Project Purpose
- Scope of Services and Schedule
- Virtual Tour (Google Maps)
- Data Collection
- Steering Committee Feedback
  - Confirm Project Objectives / Vision
  - Local Bicycle / Pedestrian Travel Issues
  - Mapping Exercise
  - Additional Comments
- Next Steps

NJDOT'S LOCAL BICYCLE AND PEDESTRIAN PLANNING ASSISTANCE PROGRAM



PROJECT PURPOSE

- Review trail network to assess connections, **provide vision of linkages** between major destinations and plan for future pathway opportunities based on current and future conditions.
- By determining where missing links exists, **Township can develop projects and programs** that enhance safe, easily accessible trails that connect public facilities, retail businesses, restaurants and recreational opportunities.

1/12/2017

ABOUT MOUNT OLIVE TOWNSHIP

- **31 square miles,** population: 28,000 residents
- 140 roadway miles (including Rt. 46 & Rt. 206)
- Both **rural and suburban** characteristics
- Primarily located with the **NJ Highlands Preservation area,** remainder within the NJ Highlands Planning area (N.J.A.C. 7:38)
- Business community **centrally located** & surrounded by residential neighborhoods.

ABOUT MOUNT OLIVE TOWNSHIP

- **Turkey Brook Park,** major recreational area centrally located
- **Budd Lake,** popular recreation facility with existing trails
- **International Trade Center,** (major shopping /dining area)
- Tow path along section of the **Morris Canal,** actively used
- **Allamuchy Mountain and Stephens State** Park Trails, lack Twp. access
- Additional trails: **Patriots' Path and Sussex Branch Trail** and the **High Point to Cape May Bicycle Route**
- Bike/Ped travel along **NJ Rt. 206 and Rt. 46** is challenging
- 2009 **Trails Plan** (The Land Conservancy of NJ with Mount Olive Open Space Committee)

PROJECT PURPOSE TOWNSHIP VISION (PER APPLICATION)

- Provide Access to **Open Space**
- Provide Access to **Existing State Parks**
- Provide **Connectivity to Regional Trail Systems** and trails in neighboring communities (ex. Washington Township's Columbia Trail and Patriots Path)
- Develop concept plan to provide **pathways to work and play** / linking residential neighborhoods to recreational and work/business areas
- Provide **sidewalk and bicycle connections** (focus: **Rt. 46, Rt. 206, International Drive and in vicinity of Mount Olive High School**). *Focus: center of Mt Olive and the area around the High School.*
- Expand **Exercise and Natural Appreciation Opportunities** (bike, walk or hike for health benefits).

PROJECT PURPOSE / OBJECTIVES

- Confirm the Township's **Bicycle/Pedestrian Plan Vision**
- Identify a **Priority Bicycle and Pedestrian Network**
- Develop planning level **Concepts,** focused on major linkages
- Planning Assessment of a Walking/Biking Path by extending **Columbia Trail** into Flanders (convert 3 mile **High Bridge section of Morristown-Erie RR** to a trail to link Columbia Trail)
- Evaluate Township's **Complete Streets** accommodations (center area, 13+ neighborhoods & High School). *A thorough CS Evaluation not the intent / not included in the project scope*
- Identify **procedures, roles and responsibilities** for implementation of Plan

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SCOPE OF SERVICES

- **TASK 1** - PROJECT ADMINISTRATION
- **TASK 2** - SYSTEM EVALUATION (DATA COLLECTION, NEEDS ASSESSMENT, OPPORTUNITIES & CONSTRAINTS)
- **TASK 3** - COMMUNITY OUTREACH
- **TASK 4** - PLANNING CONCEPTS
- **TASK 5** - DRAFT AND FINAL PLAN

TASK 1 - ADMINISTRATION

- Project Management
- Meetings

TASK 2 - SYSTEM EVALUATION
(DATA COLLECTION, NEEDS ASSESSMENT, OPPORTUNITIES AND CONSTRAINTS)

A. Data Collection (Requested Information, assistance Twp.)

- 2009 Trails Plan and any updated trail information since the 2009 study
- Trail Maps, Aerial Maps
- Existing studies pertaining to bicycle and pedestrian travel
- Elementary and Middle Schools' Safe Routes to School Programs
- Municipal Master Plan, Tax Maps/Easement/ROW Information
- Police Reports/Crash Data (high accident areas, bike/ped accidents)
- Existing Speed Studies, Traffic Counts, if applicable
- Safety Education Programs
- Proposed Recreation Department and Development Projects
- Available Plans and Studies from Morris Co. & neighboring jurisdictions
- Steering Committee Input, Public Input

DATA COLLECTION SUMMARY

GIS Data

- 2009 Trails Plan (The Land Conservancy of New Jersey)
  - Existing and Proposed Mount Olive Trails by type (blazed, unblazed etc.)
  - ROSI 2012 & Conservation Easement
  - Stephens Park Trail
  - Preserved Farms
  - State, County and Municipal Open Space
- Mount Olive Township
  - New & Proposed Mt Olive Trails
  - Crash Reports
- Plan4Safety at CAIT Rutgers
  - Bicycle and Pedestrian Crashes
- Highlands Council
  - Highlands Area
- Transportation
  - NJ Transit Rail Lines and Stations
  - Private Bus Routes

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BICYCLE AND PEDESTRIAN CRASHES (2006-2015)

- 37 Pedestrian Crashes
  0 Fatalities
- 17 Bicyclist Crashes
  1 Fatality

TASK 2 - SYSTEM EVALUATION
(DATA COLLECTION, NEEDS ASSESSMENT, OPPORTUNITIES AND CONSTRAINTS)

B. Needs Assessment

- **Access** to Turkey Brook Park, HS and Chester M. Stephen's Elementary
- **Center of Mount Olive** (concentrated residential communities)
- **Connections** (on road or off-road to focus areas)
- Development of an **Existing Conditions / Opportunities / Constraints Map** highlighting:
  - Trip generators (schools, etc.), Landmarks
  - Gaps in connectivity
  - Potential ROW and/or easement opportunities for priority off-road connections
  - Proposed development
  - Barrier and conflict locations (pedestrian conflict locations)
  - Desired corridors/connections

TASK 3
COMMUNITY PARTICIPATION (PUBLIC OUTREACH)

A. **Press Release** in advance of Visioning Workshop and PIC
B. **Visioning Workshop (public)**
   - Inform public about the study / seek input
   - Mapping and Visioning Exercise

tour de mount olive

C. **Project Video / PowerPoint** - link to web media - explain project
D. **Public Information Center**
E. **Web Survey - Sample Q's**
   - User types (experienced, casual, never biked, etc.)
   - Are trails clearly marked? Are local maps accurate?
   - Existing Trip types (exercise, school, access to downtown, etc.)
   - Vision for accommodation of future trip types
   - Perception level of trail accommodation (what they should be)
   - Confirm or add potential off-road and on-road connections
F. **WikiMapping** - interactive map available on-line for public input

TASK 4
REVIEW AND PLANNING CONCEPTS

A. Recommendations and Planning Concepts

- Links between trails, key trip generators
- General recommendations - 5 specific improvements concepts along key routes
- Interview key stakeholders (up to 3) to guide the assessment / planning level concepts

B. Township Trail Logo / Branding
C. Potential Funding Sources
D. Complete Streets Policy / Review Procedures
E. Implementation Matrix - Recommendations to assist Township in the development of "problem statements" for future projects

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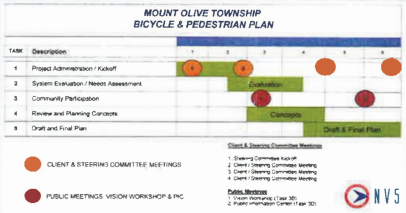
TASK 5
DRAFT / FINAL PLAN

- Executive Summary
- Vision
- Methodology
- Needs Assessment
- Mapping (Existing/Opportunities/ Constraints)
- Concepts and Recommendations
- Implementation Matrix

SCHEDULE



STEERING COMMITTEE FEEDBACK

- Confirm Project Objectives / Vision
- Local Bicycle / Pedestrian Travel Issues
- Mapping Exercise
- Additional Comments

CONFIRM PROJECT PURPOSE TOWNSHIP VISION (PER APPLICATION)

- Provide Access to **Open Space & State Parks**
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- Expand **Exercise and Natural Appreciation Opportunities** (bike, walk or hike for health benefits).

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CONFIRM PROJECT PURPOSE / OBJECTIVES

- Confirm the Township's **Bicycle/Pedestrian Plan Vision**
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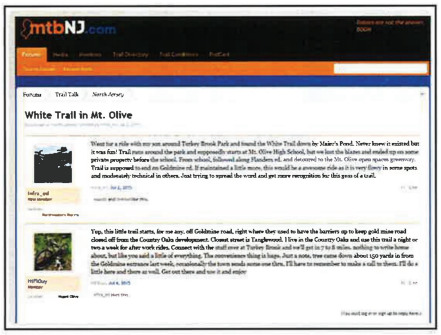
- Identify **procedures, roles and responsibilities** to facilitate the implementation of the Plan

STEERING COMMITTEE FEEDBACK

Local Bicycle / Pedestrian Travel Issues

- Current bicycling environment?
- Is safety an issue ?
- Lack of connections?
- Awareness?
- Funding?



STEERING COMMITTEE FEEDBACK

- Mapping Exercises
  - Virtual Tour
  - WikiMapping

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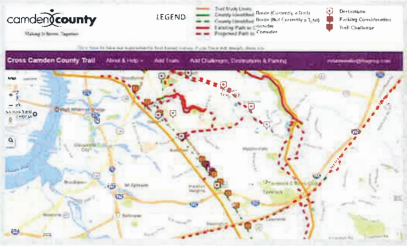
VIRTUAL TOUR

WIKIMAPPING



STEERING COMMITTEE FEEDBACK

Additional Comments

NEXT STEPS

- System Evaluation
- Needs Assessment
- Press Release / Survey (confirm questions)
- Steering Committee Meeting (late February) in advance of Vision Workshop
- Vision Workshop (discuss date / forum)

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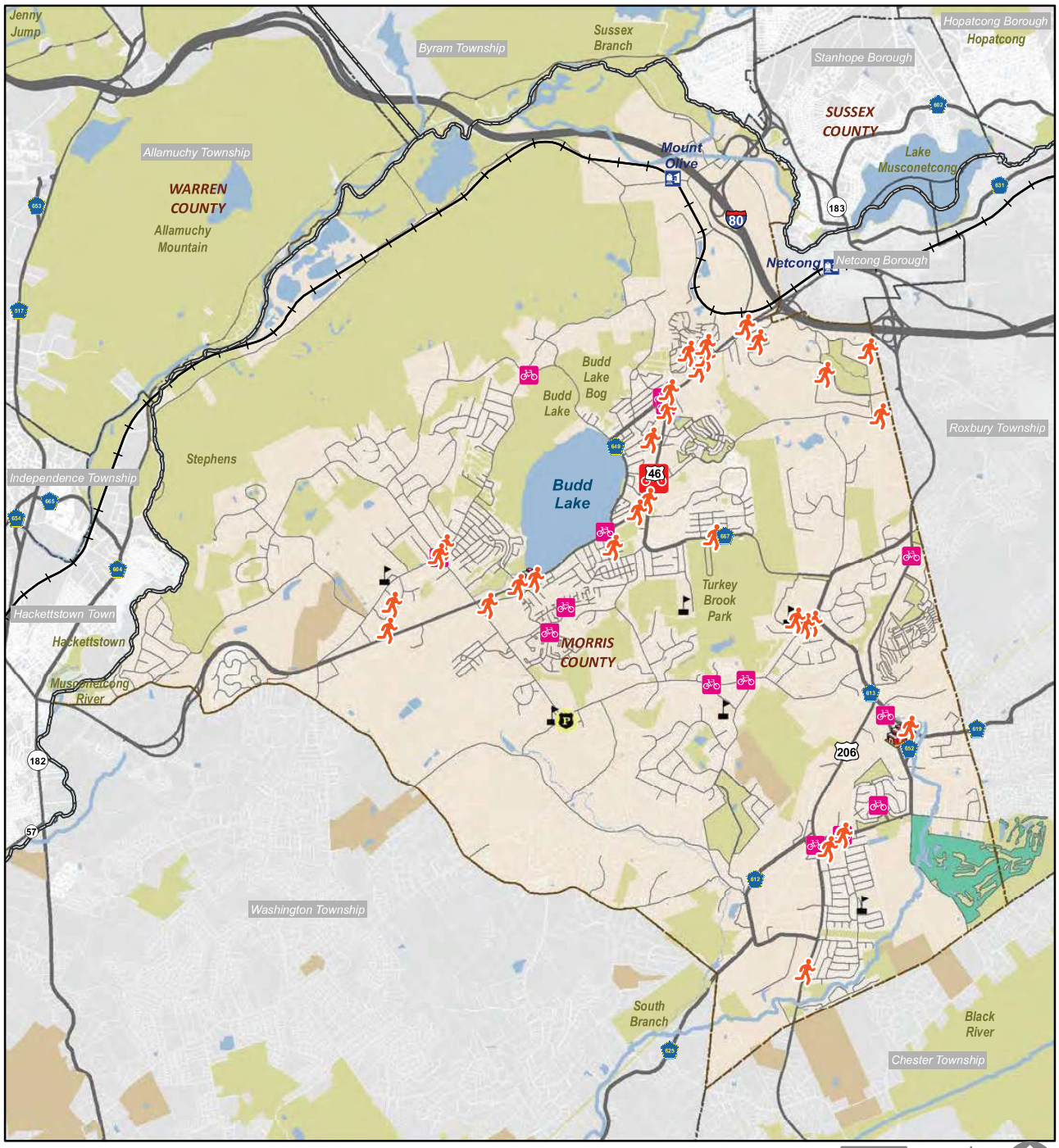
BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

BICYCLE & PEDESTRIAN CRASHES (2006-2015)

WORKING DRAFT
For Discussion Purpose Only



Legend

- Pedestrian Crashes (37)
- All Bicycle Crashes (17)
- Fatal Bicycle Crash (1)
- Mt Olive Township
- Neighboring Municipalities
- County Border
- Public Parks and Land
- Preserved Farmland
- Water Body
- Rivers / Streams
- Schools
- Fire Stations
- Police
- Flanders Valley Golf Course
- ROSI-Conservation Easement

0 0.5 1 Miles

Sources: The Land Conservancy of New Jersey, Mount Olive Township, NJDEP, NJDOT, Plan4Safety

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

STUDY AREA MAP

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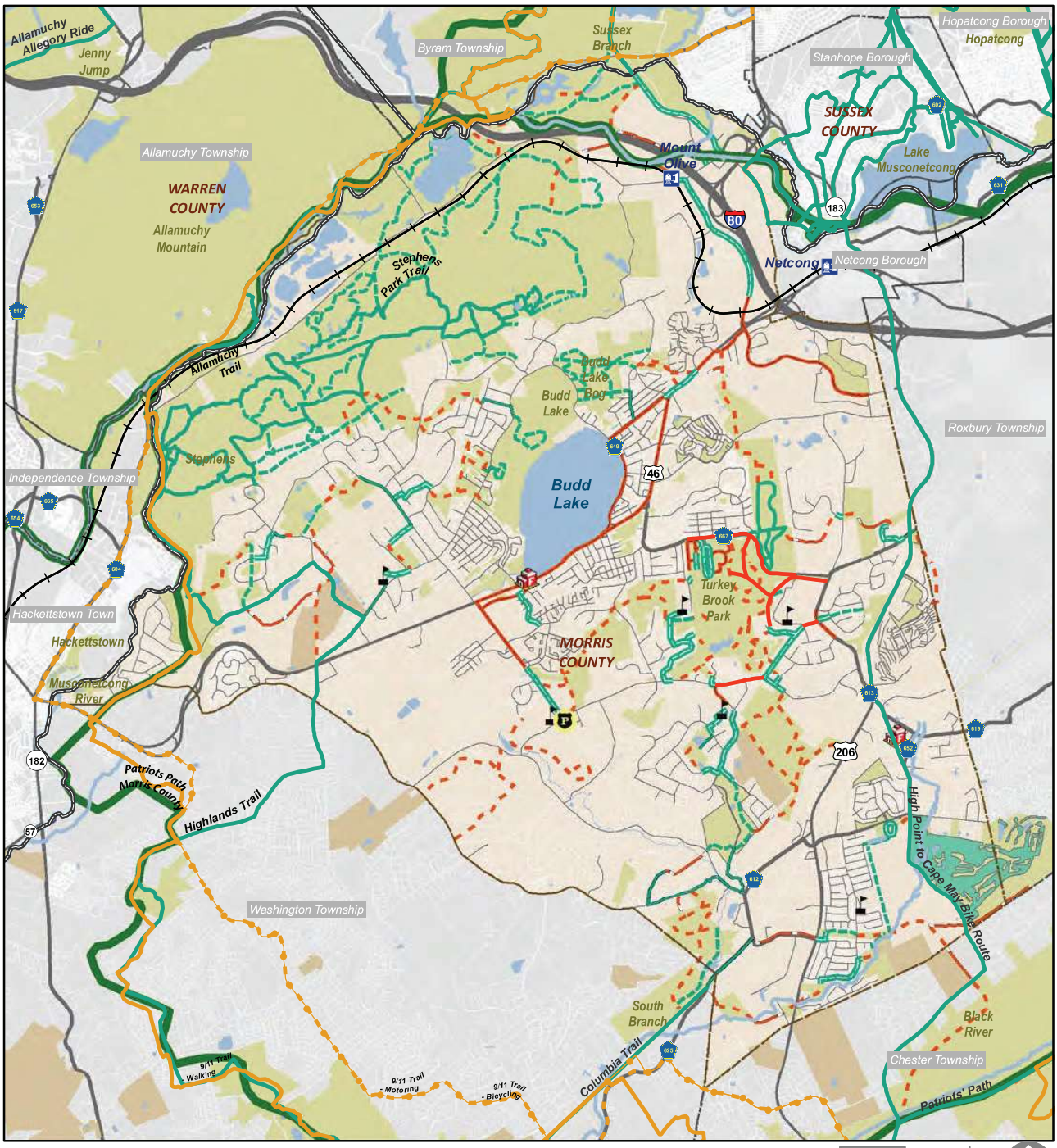

Legend

- Mt Olive Township
- Neighboring Municipalities
- County Border
- Public Parks and Land
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- Rivers / Streams
- Schools
- Fire Stations
- Police
- Flanders Valley Golf Course
- ROSI-Conservation Easement
- Morris Canal
- Liberty - Water Gap Trail
- Existing / Planned Regional Trails
- 9/11 Trail - Bicycling
- 9/11 Trail - Motoring
- 9/11 Trail - Walking

Existing Mt Olive Trails (2009 Trails Plan)

- Blazed
- Unblazed
- Roadwalk
- Sidewalk or Paved Path

Proposed Mt Olive Trails (2009 Trails Plan)

- Blazed
- Requires Easement
- Sidewalk
- New Proposed Trails (Since 2009)

0 0.5 1 Miles

Sources: The Land Conservancy of New Jersey, Mount Olive Township, NJDEP, NJDOT, Plan4Safety

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

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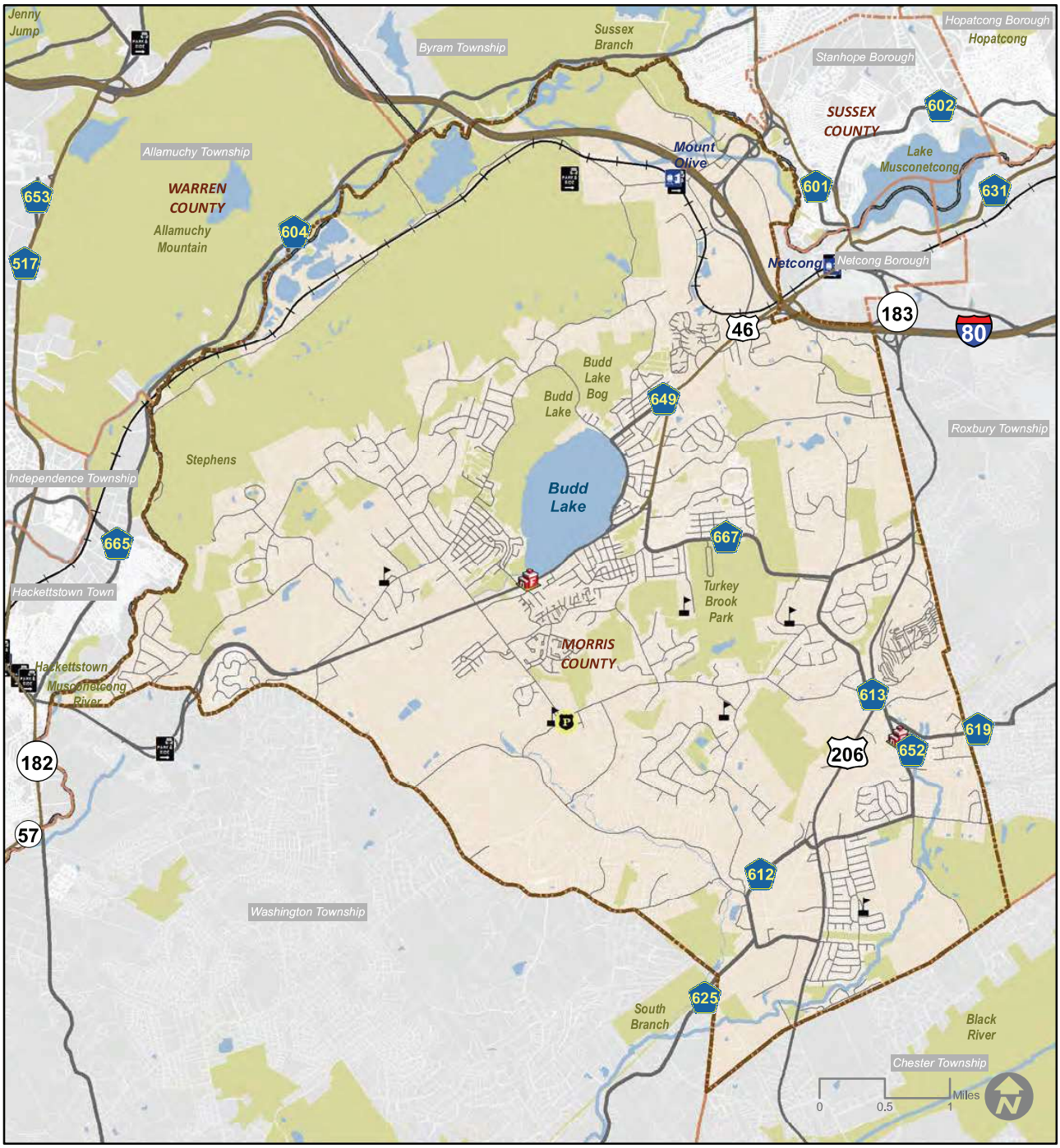


Legend

- County Border
- Mt Olive Township
- Neighboring Municipalities
- Water Body
- Rivers / Streams
- Public Parks and Land
- Fire Stations
- Police
- Schools
- Private Bus Routes
- Train Station
- Railroad
- Park and Ride

Sources: The Land Conservancy of New Jersey, Mount Olive Township, NJDEP, NJDOT, Plan4Safety

Appendix B: Visioning Outreach Summary

Mount Olive Bicycle and Pedestrian Plan

VISIONING OUTREACH SUMMARY

Mount Olive High School
Saturday March 11, 2017
11:30 - 3:30 PM

NV5 Representatives: Denice daCunha, Dede Murray
Mount Olive Representative: Laura Harris, Business Administrator

NV5 conducted a public outreach event on Saturday, March 11, 2017 at the Mount Olive High School from 11:30 AM-3:30 PM during the Mid-Atlantic Robotics Event taking place at the High School. Mount Olive's Business Administrator helped facilitate the outreach event. A press release was sent to Mount Olive Planning Board members & its professionals, along with the following outlets:

- Chamber of Commerce
- Mt. Olive Chronicle
- Daily Record
- Mt Olive News
- High School
- WRNJ
- Posted on Mayor Greenbaum Facebook page (estimated weekly reach is over 20,000)

The event was well attended by members of Mount Olive and surrounding communities. NV5 set up a booth at the event to garner input and feedback from Mount Olive residents and those who utilize Mount Olive trails to help shape the Bicycle and Pedestrian Master Plan. The booth was outfitted with several map poster boards and two laptops. The PowerPoint presentation shown at the Steering Committee meeting, which showcases the project's background and goals, was available for discussion. A laptop was used as a station for attendees to complete the survey and WikiMap at the event if desired or reverence areas of concern on google maps and discuss with NV5.

The project team encouraged public input on current conditions in the Township and how they can be addressed with the development of trails, bikeways and sidewalks linking recreation areas, schools,

neighborhoods and businesses, among the other ideas being considered to make the township more bicycle and pedestrian-friendly and reduce vehicular traffic. Responses by attendees were collected through direct conversation and inquiry as well as welcoming input by marking up the map poster boards with markers and sticky notes of their commentary. Handouts advertising the project were provided, with links to the online survey and WikiMap, allowing attendees to provide more input at their convenience.

Stakeholder Comments

Note: Comments are listed below and locations also shown on attached overall map (page 11). List below also repeated following map):

Recorded by Denice daCunha:

1. Budd Lake is a beautiful area and should be used for more activities, such as sail boating. Have concern that won't be able to build paths/trails in "bog" area.
2. Use Station Road parking area to access trails - but not sure there is public awareness about what areas can use (private vs. public). Stephens State Parks recently added signs which are helpful. Education on where trails exist and which are allowed for public use. In past got chased out of some trails that were on private property.
3. Trails are too far away from homes
4. Would ride bike on roads if there were wider shoulders (High School Student comment)
5. As a kid could not go anywhere, not until I could drive! (High School Student comment)
6. Article about project in Mount Olive Chronicle
7. Hard to get from Ironia Road area to trails by foot or bike, must drive.
8. Triumph Plastics train only comes about once a month - can that section of rail be converted to trail?
9. Getting across Rt 206 is very difficult.
10. "Bog" side of Budd Lake is nice but must hug Sand Shore Drive to bike around. Do not mind riding bike with traffic but traffic around here (Mt Olive) does not anticipate bike traffic like other areas
11. Live on 44 Corey Road, received a letter from Township in past that a paper road in their neighborhood was going to become a trail. What is the status? Mayor Greenbaum discussed with resident and they will be in contact.
12. Need way to get to Turkey Brook Park from High School
13. Smithtown Road has a lot of houses and needs sidewalk or safe place to ride bike (High School student comment).
14. If there were sidewalks would walk places! Have to always get picked up or dropped off. (High School student comment)
15. Did not know we had trails! Live in Flanders area. Have heard about fishing area in Turkey Brook Park but cannot find how to get there and don't know condition of trail. No signs.
16. Laura Harris discussion with stakeholder about goal to connect Tinc School to Turkey Brook Park. Want to connect to Roxbury.
17. Lynn Orlowitz - Volunteer that hikes throughout area and cleans/maintains trail (will email information). Discussed the following:
    - Took survey
    - There is a 2016 map - but some areas not accurate, such as a mystery "blue trail"

- Trail connecting from north Mount Olive through Turkey Brook and connect to Tinc School would be great
- Trails in Turkey Brook Park do not seem to make sense - like spaghetti bowl, not sure how laid out (intent)
- Sussex Branch Trail parking lot gets packed. Should connect this trail to Continental Drive area.
- Open Space Committee is proposing trail from area across from Matt's Glass to Spring Farm area (more information can be obtained from Laura Szwak, NJ Conservation Foundation)
- Suggestion for survey - add communication (who to contact)
- Discuss request to put volunteer request in survey and concern. Maybe can include in final report

18. Would love to know where to park car for trail to Meyers Pond. People get there but must hike down from north, Need signs and trail head to get o this popular fishing spot. Have concerns parking on cul-de-sac street and cutting through someone's yard
19. Live on Cathy Drive - no safe place to bike so take car to Turkey Brook. Roads near house are too steep and curves
20. Too dangerous to walk on Flanders Drakestown Road
21. Issue with children walking to school: No crossing guards, young drivers, and parents rushing to work are a dangerous combination - will not let children walk to school.
22. Should be able to get to Columbia Trail from Mt. View Elementary School
23. Live in Village Green:
    - Should be way for kids to get to ITC area to go shopping or for jobs
    - 46 is too dangerous to cross - need path near Rt 46 to get to ITC
    - Nothing around Budd Lake to walk around
    - No bus service from Village Green or Mount Olive To County College of Morris (CCM)
24. Need more connections to library
25. Superintendent of Mount Olive Schools and 2 BOE members - discuss project and requested if High School students could take survey
26. Safety concern near ITC if path proposed due to "transient area"
27. Union City Board of Ed (Teacher Mrs. Sparrow) - interest in project for Union City - spoke further with Leigh Ann Von Hagen
28. Leigh Ann Von Hagen (Senior Research Manager, Alan M. Voorhees Transportation Center - Bloustein School of Planning and Public Policy, Rutgers, and Netcong resident)

- May have taken survey early (included name) - NV5 will retrieve
- Discussed Business Improvement Districts with Laura Harris
- Braille trail dead ends - opportunity for connections
- Should try to utilize abandoned roadway (possibly old Rt 80 ?) that runs parallel to Rt 80 - starts behind Mount Olive Recycling Center - Condition is poor with potholes but could improve and connect to Waterloo Village , via Water Valley Road. Noted that Water Valley Road needs improvement
- Plane Street by Braille Trial comes out on Continental Drive which is wide enough and would be good connection to Sussex Branch Trail
    - Issue is crossing International Drive / Continental Drive (Waterloo Valley Road) - signal has loop detector that does not seem to work - need improvements at signal for bike crossing
- Agree that trail signage, better maps are needed. Laura Harris suggested QR codes
- Discussed crossing guard issue with Laura Harris - is not a school issue, is a municipal issue

Recorded by Dede Murray:

29. Trail signage is missing- don't know that many trails exist outside of the trails at Turkey Brook Park
30. Want Turkey Brook Park connection to Budd Lake
31. Want more business development around Budd Lake (restaurants, lake community businesses)
32. Mount Olive resident and school faculty:
    - Traffic calming, safety measures needed on Lakeside section of Rt 46
    - Apartments near Budd Lake need sidewalk connections or safer biking to Rt 46
    - Has students who walk and bike on Rt 46 as a necessity-- It is a huge safety concern
    - Had a friend fatally struck while bicycling on Rt 46
    - Would like to see a pedestrian overpass on Rt 46
33. Issues connecting to Black River Preserve (towards Horseshoe Lake in Roxbury)
34. Issues moving east to west/west to east across town because of busy roads such as Rt 46 and Rt 206
35. Flanders-Drakestown Road is dangerous to cross
36. Speeding is an issue by the schools- concentration of young drivers, morning commuters, and school buses.
37. Multiple parents stated that they feel unsafe letting their child walk or bike to school or around town
38. Want more crossing guards to improve safety
39. One parent said his daughter wanted to walk to the High School, but after walking to school a few times, she was very scared and discouraged about walking because pedestrian conditions on the roads were dangerous
40. Many residents interested in a boardwalk or trail along Budd Lake
41. Many residents interested in extending the Columbia Trail
42. Many parents drive their children to school, causing traffic on the roads

Attached:

-Photos from the event
-Trail condition images Provided by Stakeholder Lynn Orlowitz
-Meeting Materials (Handout, Map Poster Boards)
-Stakeholder Comments (locations shown on map)

Photos from the Event:

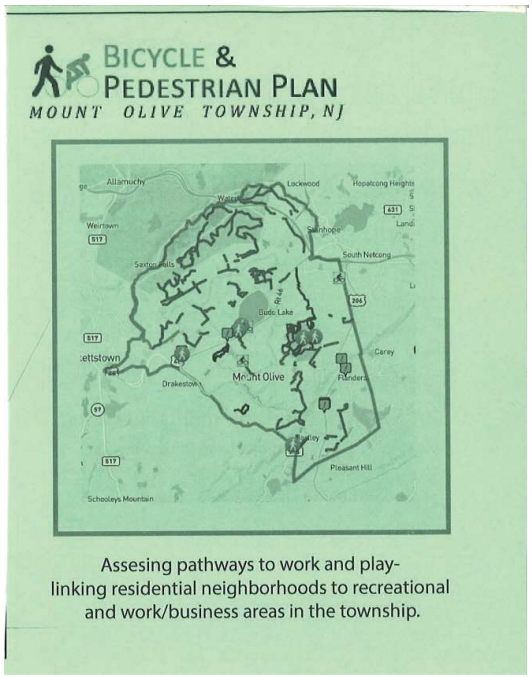
The following images were provided by Stakeholder Lynn Orlowitz shortly after Outreach Session: (White Trail in Mount Olive leading from the Goldmine Road parking lot up to its end at Old Budd Lake Road)

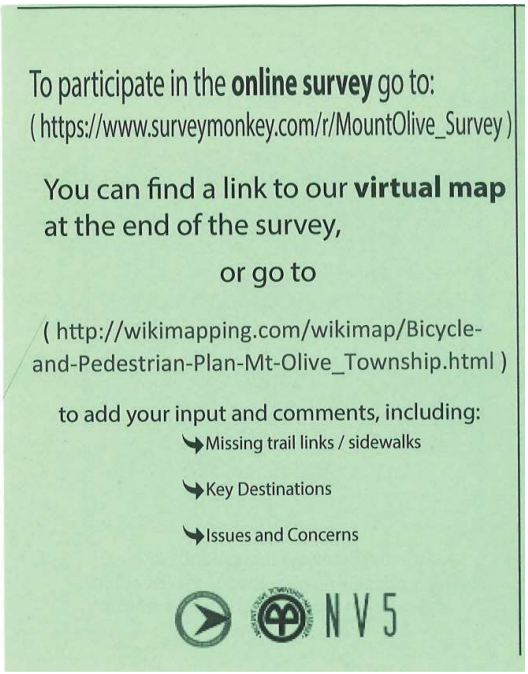
Log Bridge / area in need of repair

Trash on Trails

More Trash on Trails

Meeting Materials:



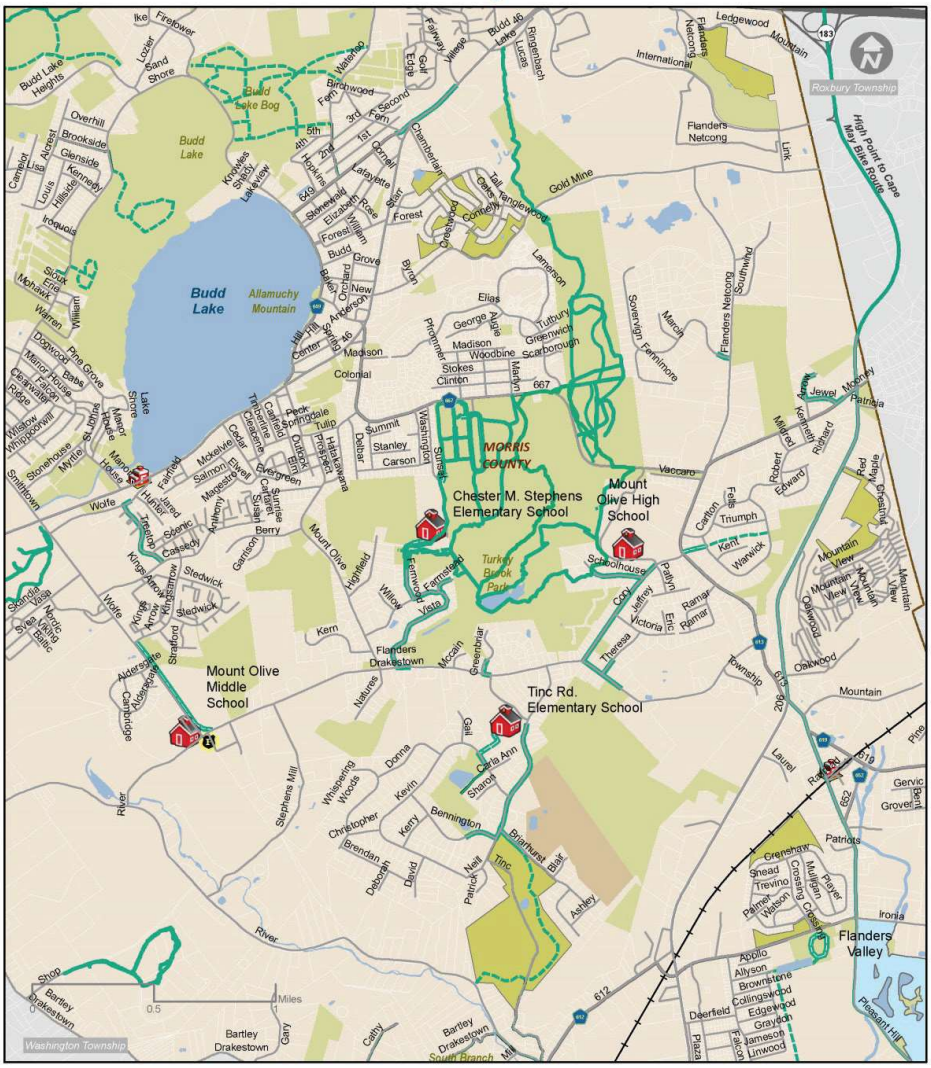


Handout about the Project and providing links to the Survey and WikiMap

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

PROJECT FOCUS AREA Map 1

WORKING DRAFT
For Discussion Purpose Only



Legend

- Mt Olive Township
- Neighboring Municipalities
- County Border
- Public Parks and Land
- Preserved Farmland
- Water Body
- Rivers / Streams
- Schools
- Fire Stations
- Police
- ROSI-Conservation Easement
- Railroad
- Existing / Planned Regional Trails

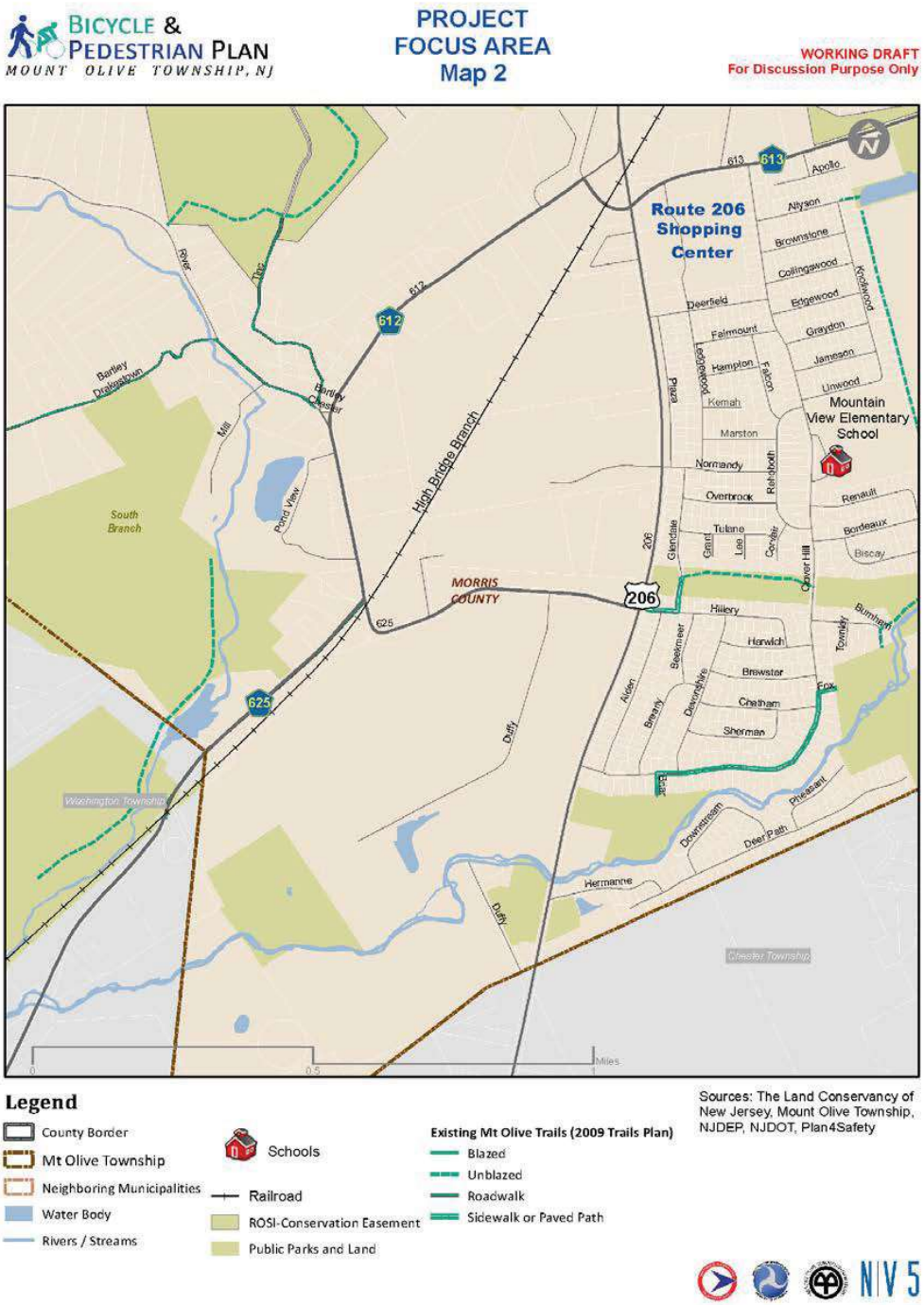
Existing Mt Olive Trails (2009 Trails Plan)

- Blazed
- Unblazed
- Roadwalk
- Sidewalk or Paved Path

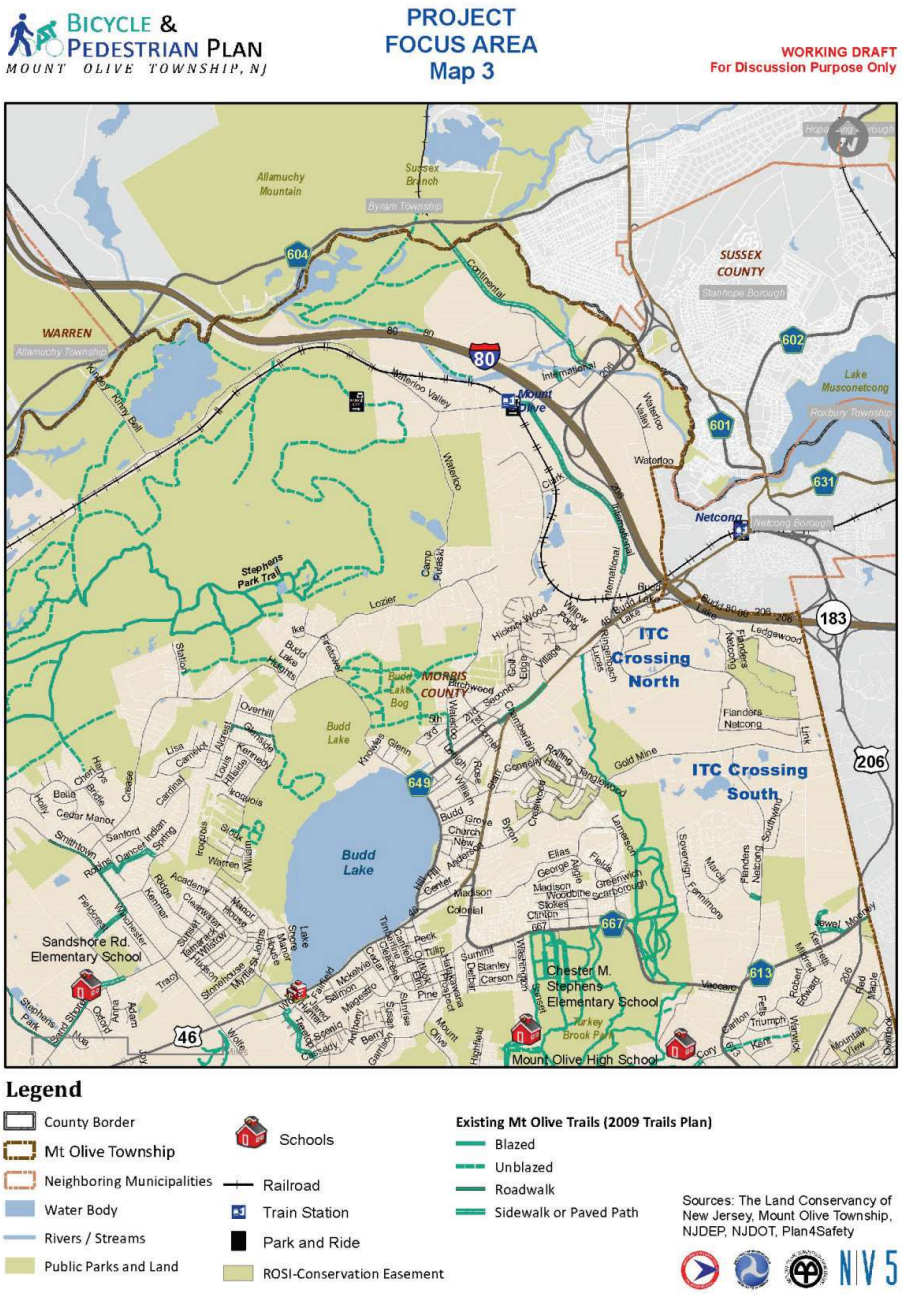
Sources: The Land Conservancy of New Jersey, Mount Olive Township, NJDEP, NJDOT, Plan4Safety

NV5

Focus Area 1
(For Stakeholder Input, see Page 11 of this summary)



Focus Area 2 Map
(For Stakeholder Input, see Page 11 of this summary)

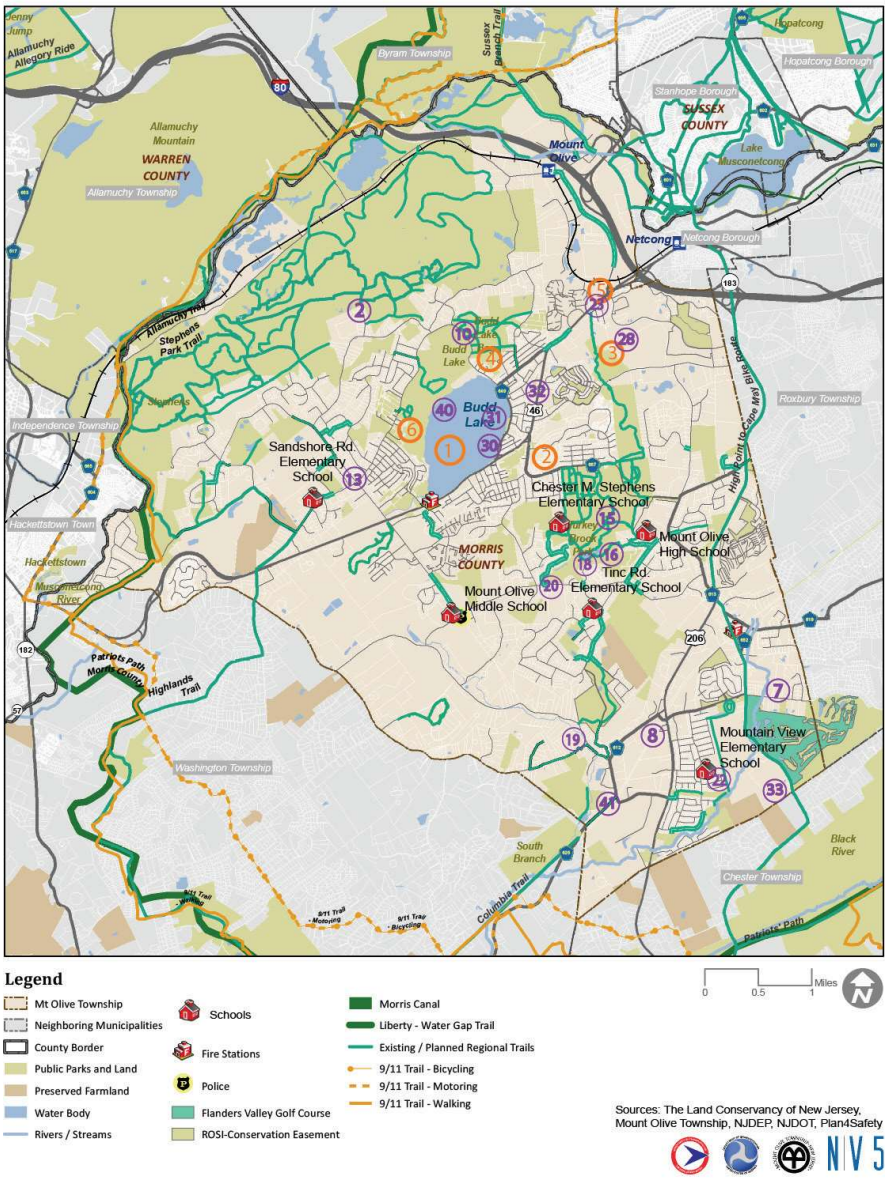


Focus Area 3
(For Stakeholder Input, see Page 11 of this summary)

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

STUDY AREA MAP

WORKING DRAFT
For Discussion Purpose Only



Overall Project Area with Stakeholder Comments

Stakeholder Commentary:

Map markups by Stakeholders (in Orange):

1. Consider new activities, like Sail Boating at Budd Lake
2. Bike Trail- starting in Turkey Brook (TB) & eventually returning to TB
3. 20 min hike

   Marsh areas need work
4. Bog Area Trails- proposed within Bog Area- surprised allowed
5. Should connect
6. Connect existing trails along Budd Lake

Input of Specific Areas from Discussions with Stakeholders (in Purple):

2, 7, 8, 10, 13, 15, 16, 18, 19, 20, 22, 23, 28, 30, 31, 32, 33, 40, 41 (see Listing Pages 12 - 14)

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OFFICES NATIONWIDE

CONSTRUCTION QUALITY ASSURANCE - INFRASTRUCTURE - ENERGY - PROGRAM MANAGEMENT - ENVIRONMENTAL

Stakeholder Comments (*shown on overall map - Page 11):*

1. Budd Lake is a beautiful area and should be used for more activities, such as sail boating. Have concern that won't be able to build paths/trails in "bog" area.
2. Use Station Road parking area to access trails - but not sure there is public awareness about what areas can use (private vs. public). Stephens State Parks recently added signs which are helpful. Education on where trails exist and which are allowed for public use. In past got chased out of some trails that were on private property.
3. Trails are too far away from homes
4. Would ride bike on roads if there were wider shoulders (High School Student comment)
5. As a kid could not go anywhere, not until I could drive! (High School Student comment)
6. Article about project in Mount Article
7. Hard to get from Ironia Road area to trails by foot or bike, must drive.
8. Toys R Us train only comes about once a month - can that section of rail be converted to trail?
9. Getting across Rt 206 is very difficult.
10. "Bog" side of Budd Lake is nice but must hug Sand Shore Drive to bike around. Do not mind riding bike with traffic but traffic around here (Mt Olive) does not anticipate bike traffic like other areas
11. Live on 44 Corey Road, received a letter from Township in past that a paper road in their neighborhood was going to become a trail. What is the status? Mayor Greenbaum discussed with resident and they will be in contact.
12. Need way to get to Turkey Brook Park from High School
13. Smithtown Road has a lot of houses and needs sidewalk or safe place to ride bike (High School student comment).
14. If there were sidewalks would walk places! Have to always get picked up or dropped off. (High School student comment)
15. Did not know we had trails! Live in Flanders area. Have heard about fishing area in Turkey Brook Park but cannot find how to get there and don't know condition of trail. No signs.
16. Laura Harris discussion with stakeholder about goal to connect Tinc School to Turkey Brook Park. Want to connect to Roxbury.
17. Lynn Orlowitz - Volunteer that hikes throughout area and cleans/maintains trail. Discussed the following:
    - Took survey
    - There is a 2016 map - but some areas not accurate, such as a mystery "blue trail"
    - Trail connecting from north Mount Olive through Turkey Brook and connect to Tinc School would be great
    - Trails in Turkey Brook Park do not seem to make sense - like spaghetti bowl, not sure how laid out (intent)
    - Sussex Branch Trail parking lot gets packed. Should connect this trail to Continental Drive area.
    - Open Space Committee is proposing trail from area across from Matt's Glass to Spring Farm area (more information can be obtained from Laura Szwak, NJ Conservation Foundation)
    - Suggestion for survey - add communication (who to contact)
    - Discuss request to put volunteer request in survey and concern. Maybe can include in final report

18. Would love to know where to park car for trail to Maier's Pond. People get there but must hike down from north, Need signs and trail head to get o this popular fishing spot. Have concerns parking on cul-de-sac street and cutting through someone's yard
19. Live on Cathy Drive - no safe place to bike so take car to Turkey Brook. Roads near house are too steep and curves
20. Too dangerous to walk on Flanders Drakestown Road
21. Issue with children walking to school: No crossing guards, young drivers and parents rushing to work is dangerous combination - will not let children walk to school.
22. Should be able to get to Columbia Trail from Mt. View Elementary School
23. Live in Village Green:
    - Should be way for kids to get to ITC area to go shopping or for jobs
    - Rt 46
    - 46 is too dangers to cross - need path near Rt 46 to get to ITC
    - Nothing around Budd Lake to walk around
    - No bus service from Village Green or Mount Olive To County College of Morris (CCM)
24. Need more connections to library
25. Superintendent of Mount Olive Schools and 2 BOE members - discuss project and requested if High School students could take survey
26. Safety concern near ITC if path proposed due to "transient area"
27. Union City Board of Ed (Teacher Mrs. Sparrow) - interest in project for Union City - spoke further with Leigh Ann Von Hagen
28. Leigh Ann Von Hagen (Senior Research Manager, Alan M. Voorhees Transportation Center - Bloustein School of Planning and Public Policy, Rutgers, and Netcong resident)
    - May have taken survey early (included name) - NV5 will retrieve
    - Discussed Business Improvement Districts with Laura Harris
    - Braille trail dead ends - opportunity for connections
    - Should try to utilize abandoned roadway (possibly old Rt 80 ?) that runs parallel to Rt 80 - starts behind Mount Olive Recycling Center - Condition is poor with potholes but could improve and connect to Waterloo Village , via Water Valley Road. Noted that Water Valley Road needs improvement
    - Plane Street by Braille Trial comes out on Continental Drive which is wide enough and would be good connection to Sussex Branch Trail
        - Issue is crossing International Drive / Continental Drive (Waterloo Valley Road) - signal has loop detector that does not seem to work - need improvements at signal for bike crossing
    - Agree that trail signage, better maps are needed. Laura Harris suggest QR codes
    - Discussed crossing guard issue with Laura Harris - is not a school issue, is a municipal issue
29. Trail signage is missing- don't know that many trails exist outside of the trails at Turkey Brook Park
30. Want Turkey Brook Park connection to Budd Lake
31. Want more business development around Budd Lake (restaurants, lake community businesses)
32. Mount Olive resident and school faculty:
    - Traffic calming, safety measures needed on Lakeside section of Rt 46
    - Apartments near Budd Lake need sidewalk connections or safer biking to Rt 46
    - Has students who walk and bike on Rt 46 as a necessity-- It is a huge safety concern
    - Had a friend fatally struck while bicycling on Rt 46

- Would like to see a pedestrian overpass on Rt 46

33. Issues connecting to Black River Preserve (towards Horseshoe Lake in Roxbury)
34. Issues moving east to west/west to east across town because of busy roads such as Rt 46 and Rt 206)
35. Flanders-Drakestown Road is dangerous to cross
36. Speeding is an issue by the schools- concentration of young drivers, morning commuters, and school busses.
37. Multiple parents stated that they feel unsafe letting their child walk or bike to school or around town
38. Want more crossing guards to improve safety
39. One parent said his daughter wanted to walk to the High School, but after walking to school a few times, she was very scared and discouraged about walking because pedestrian conditions on the roads were dangerous
40. Many residents interested in a boardwalk or trail along Budd Lake
41. Many residents interested in extending the Columbia Trail
42. Many parents drive their children to school, causing traffic on the roads

Appendix C: Field Visit & Photo Log

MOUNT OLIVE BICYCLE AND PEDESTRIAN PLAN

Field Visit April 27, 2017

ATTENDEES

NV5: Denice daCunha; Charlie Cunion

NJDOT: Bill Riviere

NOTES ON LOCATIONS REVIEWED

1. Municipal Building/Library
   - Pedestrian access to library from Senior Center and Municipal Complex
2. Wolfe Road
   - Sidewalk connection to Route 46
     - Access to South Preserve
     - Access to Route 46 and strip mall
   - Constraints: Slopes and Utilities, especially near Cassedy Road
3. Intersection Wolfe Road/Route 46
   - Sidewalk connections
   - Curb ramps to nowhere
4. South Branch Preserve
   - Sign – Title too small. Should say, “Trail Access/Garden”
   - Consider a new more visible sign at the parking lot access drive
5. Budd Lake Area
   - Sandshore Road
     - Consider narrowing lanes to 11’ and enlarging shoulder area
     - Widening not practical (env., ROW, etc.)
     - Could consider making Sandshore one-way direction
   - Route 46, along Budd Lake
     - Consider sidewalk in front of guiderail on SB (in order to reduce impacts to guiderail and berm, env. impacts, etc)
     - Could consider protected bike lane (requires shoulder impact)
     - NJDOT previous review of need for overpass at this location: not justified

6. Route 46 from Sandshore to Wolfe Road
   - Fill in sidewalk gaps and intersection ADA
7. Route 46 / Sandshore / Naughright Intersection
   - Crosswalks, but no sidewalk on Sandshore or Naughright
   - "No pedestrian crossing" signs present
     - Review of pedestrian activity and crash records, next phase
8. Bartley Flanders Road NB from River Road to Route 206
   - Good potential for sidewalk
     - Pavement marking
     - Appears to be room under RR for sidewalk near Route 206
9. Flanders-Bartley Road east of Route 206
   - Existing Crosswalk by Siemens faded - repaint
   - Existing sidewalk stops short of Route 206 intersection
   - Sidewalk appears well used based upon pedestrian traffic observed
   - Flanders Oval is popular destination
10. Route 206 / Flanders-Bartley Road Intersection
    - No existing crosswalks or sidewalk
    - Bartley Road side is somewhat constricted due to RR crossing
11. Flanders Netcong Road / Main Street / Route 206 Intersection
    - Severely constrained due to limited space and slope
12. Flanders Netcong Road / CR 619
    - Extend existing sidewalk from Corey Rd to Flanders Rd
13. Corey Road
    - Width 27.5 feet (good width)
    - Existing crosswalk at Victoria Drive
14. Flanders Road CR 667

    High School exit to Turkey Brook (Mount Olive proposed project)
    - White Trail Parking Area / Mt. Olive open space
      - Need signs on Flanders Road
      - Need information e.g., approximate length
15. Turkey Brook Park

- Signage confusing at Township Gateway, "Welcome to Mount Olive Township"
    - Way finding both to Park and Interior
    - Connection to rear of High School

16. Tinc Road
    - Sidewalk segment; close gap by school
        - Need signs on Flanders Road

17. Flanders Drakestown Road between Flanders Road and Tinc Road
    - Extend existing sidewalk

18. Waterloo Road
    - Poor condition
        - Remote, but has potential (lightly traveled)
        - 17.5' x 18' wide
        - R/R crossing
        - Could connect into Sussex County
        - Jurisdiction (County, Township)?
        - Allamuchy State Park area, but no signs
        - Lake area
        - Some off-road debris (dumping)
        - Consider safety improvements such as guiderail/protection near NJTransit crossing

19. Gold Mine Road
    - Becomes a one-way by cement plant
    - Trail access?
    - Width: 17.5' ±

20. ITC South - Shopping/Restaurants
    - Lacking connections to Route 46, 206 and neighborhood
    - Constraints along International drive due to slope/ ROW limits

21. ITC North
    - Good stretch of sidewalk exists
    - Connection needed to Route 46 but edge of roadway constrained over NJTransit RR
        - Consider narrowing lanes and providing enhanced shoulder
        - Consider making International Drive one lane in all directions, add bike lanes and sidewalk.

22. Mount Olive Transit Station
    - Small parking area

- Extend existing sidewalk across NJTransit line tracks for connection to station
- Train station usage appears low
- Sidewalk connections to businesses

23. Columbia Trail (Washington Township) —Terminus on Bartley Road
    - Consider multi-use path along Bartley Road
    - Township desires to connect / convert High Bridge Branch R/R line

24. High Tension Utility Plan
    - Still value in developing Utility ROW's where appropriate and/or possible.

25. Chester Stevens Elementary School
    - Provide sidewalk along Sunset Drive for connection to/from Chester Stevens Elementary School

26. GENERAL OVERALL COMMENTS
    - ADA
    - Signage trails
    - Trail heads/parking areas
    - Mile markers on trails and roads

Miscellaneous

Discussion with Mount Olive Administrator, Laura Harris

- Mount Olive did *not* receive SRTS grant
- Discussed bike plan next steps

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

PHOTO LOG
APRIL/MAY 2017

Destinations

Columbia Trail

Columbia Trail

Columbia Trail

South Branch Preserve

Flanders Park

Flanders Park

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Mount Olive Library

Mount Olive Library

Mount Olive Train Station

Mount Olive Train Station

Turkey Brook Park (White Trail)

Turkey Brook Park trailhead parking along Flanders Road / CR 667 (White Trail)

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Turkey Brook Park (White Trail)

Turkey Brook Park

Roadways

Bartley Flanders Rd northbound

Bartley Flanders Rd northbound

Bartley Rd northbound

Bartley Rd northbound

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Corey Rd approach to High School

Corey Rd

Flanders-Drakestown Rd

Approaching High School entrance along Corey Rd

High School entrance along Corey Rd

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Flanders Bartley Rd looking east at Siemens

Flanders Bartley Rd looking west at Flanders Park

Flanders Bartley Rd sidewalk at Siemens

Flanders Bartley Rd crosswalk at Siemens

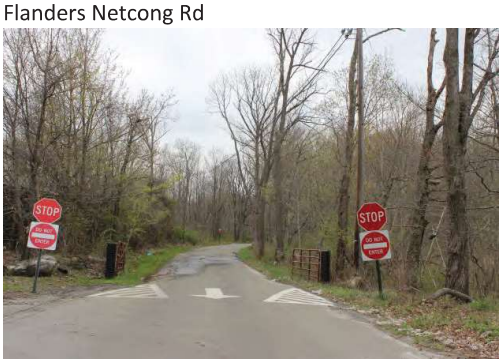
Flanders Bartley Rd at Flanders Park

Flanders Park along Flanders Bartley Rd

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Flanders Netcong Rd

Flanders-Drakestown Rd



Gold Mine Road

Gold Mine Road

ITC North – looking northwest

ITC North – looking southeast from Waterloo Rd

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Rt 46 southbound adjacent to Budd Lake

Looking north along Rt 46 adjacent to Budd Lake

Rt 46 southbound along Budd Lake near beach

Rt. 46 between Budd Lake & Wolfe Rd

Rt 46 southbound approaching Old Budd Lake Rd

Rt 206 southbound near The Mall at 206

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Rt 206 northbound north of Oakwood Village

Rt 206 northbound near Oakwood Village

Rt 206 & Flanders-Bartley Intersection

Looking North along Rt 206 from Flanders-Bartley Intersection

Looking west to Rt 206 along Flanders-Bartley Rd

Sand Shore Rd adjacent to Budd Lake

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Sand Shore Rd west of Budd Lake at trail access

South Branch Preserve

South Branch Preserve

South Branch Preserve

South Branch Preserve

South Branch Preserve

Waterloo Valley Rd

Waterloo Valley Rd

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Waterloo Valley Rd- near NJTransit crossing

Waterloo Valley Rd – looking west to Waterloo Rd

Waterloo Valley Rd – looking west to train station

Waterloo Valley Rd – looking east from Waterloo Rd

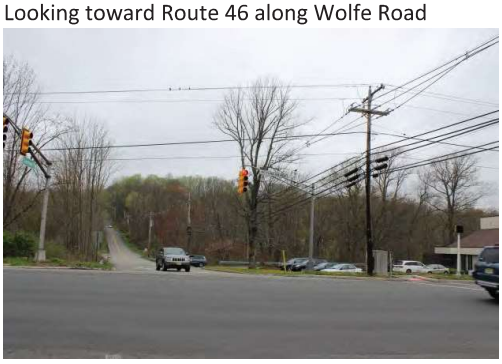
Intersection Wolfe Road/Route 46

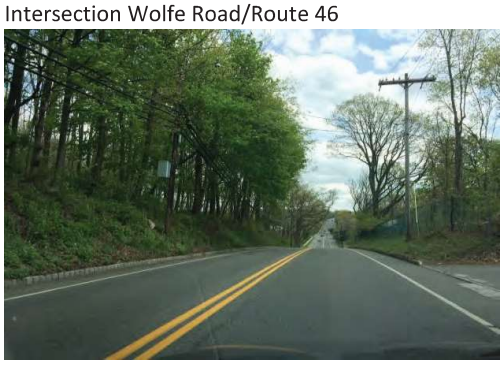
Wolfe Road

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Looking toward Route 46 along Wolfe Road

Intersection Wolfe Road/Route 46


Intersection Wolfe Road/Route 46


Wolfe Rd slope constraint

Wolfe Rd existing sidewalk

Wolfe Rd existing sidewalk terminus

Appendix D: Steering Committee Meeting #2

Minutes of Meeting

Project: **Mount Olive Township Bicycle Pedestrian Plan**
Date / Time: **May 24, 2017, 10:00 AM**
Re: **Steering Committee Meeting at Mount Olive Township Council Chambers**
Data Collection Summary and Review of Concepts
Preparer: **Denice daCunha, NV5 / RBA**
NV5, Inc. Project # J728616.0000095.02
Attendees: Sign-In Sheet attached

The purpose of the meeting was to review data collection efforts and discuss potential planning level concepts for the Mount Olive Bicycle and Pedestrian Plan with the Steering Committee. The attendee list, PowerPoint presentation (which includes the meeting agenda) and handouts discussed at the meeting are attached.

Denice daCunha initiated the meeting with introductions and the attached PowerPoint presentation. Handouts were provided of concepts to be discussed. Charlie Cunion reviewed concepts.

Steering Committee Input and Recommendations:

- The Open Space Committee is proposing new signing and a logo. The logo was the result of a local contest. NV5 will coordinate with Mount Olive to review the logo, review general trail sign layout and make recommendations.
- The Parks Department will provide input on any new park developments through the Administrator's office.
- Review of Planning Concepts
  NV5 stated that these were for **discussion purposes only**. The intent is to ascertain the type of projects that would be desired during the planning phase (this phase). Further study, engineering, approvals and permits would be needed to advance.
    - General Comments for Proposed Sidewalks / Paths
        - Can they be designated "seasonal paths" so that Mount Olive Township or non-profits do not have to clear snow? There was a concern that installing sidewalks near schools may result in the school board eliminating bussing.
            - NV5 explained that walking demand would be year round so sidewalk should be year round.
            - NV5 explained goal of bike / ped plan is to identify areas to link neighborhoods and generators. Sidewalks near schools are not just used by students.
        - Sidewalks are not priority for everyone. Some people moved to Mount Olive to be in more rural setting.
        - Bike facilities on steep roads can be very dangerous, slippery. Constructed facilities on steep roads may cause erosion.

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NV5
June 6, 2017
Page 2

- Planning Department is often pressured by developers not to require sidewalks. They should be consistent with requirements on future approvals.
- Topography of Township and separation between developed areas creates bike / ped challenges.
- There are several great planning ideas for improvements in Township, but no funding.

- Sand Shore Road
  - Mount Olive had considered one-way from Rt 46 to Netcong Road in the past. Proposal was dismissed due to EMS concerns.
  - Beach lot areas on formerly were "claimed" by opposite property owners and are a mix of ownership between, town, state and property owners. It was noted that ownership is often difficult and a lengthy process to determine and is often contested.
  - NV5's proposal for narrower 2-way section with designated path:
    - Would consider, as long as within ROW / little or no additional pavement.
- Route 46
  - Along Budd Lake area a 52" lawn mower fits in front of guiderail
  - When DOT expanded Route 46, they "took" part of lake, would love for State to give something back. Boardwalk along lake has been requested but denied by NJDEP.
  - Concern about sidewalk is that DOT will push salt and snow on sidewalk and it will deteriorate quickly. Township would have to plow section along Budd Lake.
  - Missing sections of sidewalk from Budd Lake to Wolf Road - as developments are proposed, Mount Olive is requesting they include sidewalk. Agree gaps should be eliminated.
  - There are worn paths where pedestrians walk. Have seen a person riding a motorized ADA scooter on Route 46, even with child on their lap. Agree need to address pedestrian travel along Route 46.
- Wolfe Road
  - Agree proposed connection needed and would be improvement for apartment residents to walk to laundry and shopping. However, concerns include:
    - There are adjacent properties such as nonprofits (camp) along roadway and the Preserve property (on both sides of roadway) - who would plow snow? Would not want to hold these groups responsible.
- New Development, called Regency of Flanders, will include sidewalk connection to Flanders Park and a new traffic signal at entrance.
- Columbia Trail Connection
  - Survey participant comment about Toys R Us rail use. Township explained that RR was abandoned and then federal grant allowed improvements. Rail bed is narrow and could not support an adjacent trail.
  - Area opposite Columbia Trail is now designated "Farmland Preservation"
  - Kathy Murphy, Open Space Committee, discussed an alternative connection. She will mark up NV5 map and noted that new trails include Mount Olive Township property near

Toys R Us, property by Regency Development and possible future connection to Patriots Path. Involves several sections of Township property.

- High School Area
  - Mount Olive has applied for a TAP grant for both sidewalk and stream crossing - goal is to get to Turkey Brook Park.
  - Would prefer seasonal paths so Township or school does not have to care for them in winter.
- ITC Area
  - This area has opportunities for "eco-tourism" draw
  - Goal is to connect Braille Trail to Waterloo Village, Netcong and Sussex Branch. There are several planned sections, however, no design and construction money. Plane Street Bridge is being improved for pedestrian access but an issue with the railing is being worked out. Would like historic signage with information about area.
  - Mount Olive Open Space is working with Canal Society on links and grants and will request assistance from Morris County.
  - Since BASF no longer there, 1M sf of business space is available. Hard to get train to stop at this location due to low demand. Once space is filled, more users will use train stop.
- Waterloo Valley Road
  - Quarry trucks "ruined" the roadway. Houses in this area (3) are owned by the state and rented out. Once quarry wants to close and move out, State could improve area. Not sure how much "life is left" in quarry. May not want to improve roadway until quarry trucks are gone.
  - DPW has concern about trash dumping in this area.
  - Large lake is a result of 2000 Lake Shawnee dam breach that filled quarry. Over 80 feet deep. This unplanned reserve saved flooding of Hackettstown and created a new reservoir. Could be future recreation area around lake.

Action Items:

- NV5 will provide Kathy Murphy an overall project map for markup of latest trail updates, open space connection opportunities.
- A date and time for the Public Workshop will be coordinated.
- The Mount Olive contact person will now be Claudia Tomasello.

It is noted that Laura Harris and Claudia Tomasello attended only part of the meeting.

Attachments:

- Attendee List
- PowerPoint Presentation
- Handouts

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

STEERING COMMITTEE MEETING
Data Collection Summary & Potential Concepts

MAY 24, 2017
10:00 AM at Mount Olive Municipal Building

SIGN IN SHEET

NAME	AFFILIATION	PHONE NUMBER	EMAIL ADDRESS
Denice daCunha	NV5	973-946-5624	Denice.daCunha@NV5.com
William Riviere	NJDOT	6095304646	william.riviere@dot.nj.gov
Claudia Tomasello	Mount Olive	973-691-0900 x7293	Ctomasello@mtolivetwp.org
Lisa Brett	Mount Olive	973691-0900 EX 7227	lbrette@mtolivetwp.org
Kathy Murphy	MOT Open Space, Trails	862 432 0114	KKmurphy1@optonline.net
Laura Harris	MOT Admin	973-691-0900 x7001	lharris@mtolivetwp.org
Jim Lynch	MOT Parks	973-691-0900 x7226	jlynch@mtolivetwp.org
Charlie Cunion	NV5	973 946 5623	Charles.cunion@NV5.com

NV5

PAGE ___ OF ___

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

STEERING COMMITTEE MEETING

DATA COLLECTION SUMMARY & POTENTIAL CONCEPTS

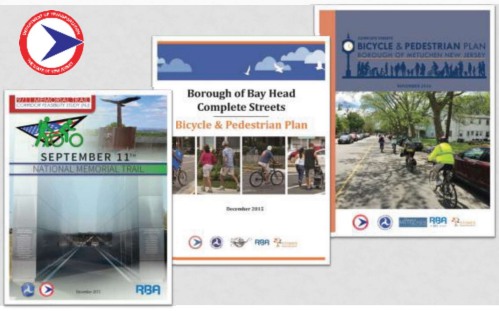
May 24, 2017 @ 10:00 p.m.
Mount Olive Municipal Building

NV5

AGENDA

- Welcome / Introductions
- Review of Project Purpose / Scope
- Data Collection Summary
- Outreach Summary
- Concept Considerations
- Steering Committee Feedback
  - Confirm Considerations
  - Additional Comments
- Next Steps

NJDOT'S LOCAL BICYCLE AND PEDESTRIAN PLANNING ASSISTANCE PROGRAM



PROJECT PURPOSE

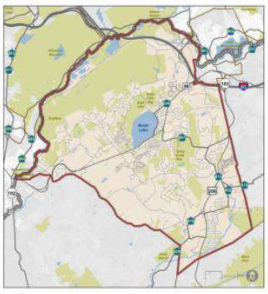
- Review trail network to assess connections, **provide vision of linkages** between major destinations and plan for future pathway opportunities based on current and future conditions.
- By determining where missing links exists, **Township can develop projects and programs** that enhance safe, easily accessible trails that connect public facilities, retail businesses, restaurants and recreational opportunities.

TOWNSHIP VISION

- Provide Access to **Open Space**
- Provide Access to **Existing State Parks**
- Provide **Connectivity to Regional Trail Systems** and trails in neighboring communities (ex. Washington Township's Columbia Trail and Patriots Path)
- Develop concept plan to provide **pathways to work and play** / linking residential neighborhoods to recreational and work/business areas
- Provide **sidewalk and bicycle connections** (focus: **Rt. 46, Rt. 206, International Drive and in vicinity of Mount Olive High School**). *Focus: center of Mt Olive and the area around the High School.*
- Expand **Exercise and Natural Appreciation Opportunities** (bike, walk or hike for health benefits).

ABOUT MOUNT OLIVE TOWNSHIP

- **31 square miles,** population: 28,000 residents
- 140 roadway miles (including Rt. 46 & Rt. 206)
- Both **rural and suburban** characteristics
- Primarily located with the **NJ Highlands Preservation area,** remainder within the NJ Highlands Planning area (N.J.A.C. 7:38)
- Business community **centrally located** & surrounded by residential neighborhoods.



05/24/2017

ABOUT MOUNT OLIVE TOWNSHIP

- **Turkey Brook Park**, major recreational area centrally located
- **Budd Lake,** popular recreation facility with existing trails
- **International Trade Center,** (major shopping /dining area)
- Tow path along section of the **Morris Canal,** actively used
- **Allamuchy Mountain and Stephens State** Park Trails, lack Twp. access
- Additional trails: **Patriots' Path and Sussex Branch Trail** and the **High Point to Cape May Bicycle Route**
- Bike/Ped travel along **NJ Rt. 206 and Rt. 46** is challenging
- 2009 **Trails Plan** (The Land Conservancy of NJ with Mount Olive Open Space Committee)

PROJECT OBJECTIVES

- Confirm the Township's **Bicycle/Pedestrian Plan Vision**
- Identify a **Priority Bicycle and Pedestrian Network**
- Develop planning level **Concepts**, focused on major linkages
- Planning Assessment of a Walking/Biking Path by extending **Columbia Trail** into Flanders (convert 3 mile **High Bridge section of Morristown-Erie RR** to a trail to link Columbia Trail)
- Evaluate Township's **Complete Streets** accommodations (center area, 13+ neighborhoods & High School). *A thorough CS Evaluation not the intent / not included in the project scope*

SCOPE OF SERVICES

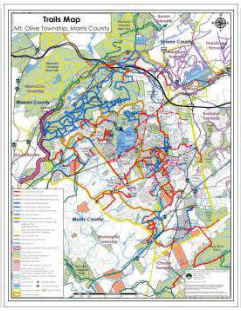
- **TASK 1** - PROJECT ADMINISTRATION
- **TASK 2** - SYSTEM EVALUATION (DATA COLLECTION, NEEDS ASSESSMENT, OPPORTUNITIES & CONSTRAINTS)
- **TASK 3** - COMMUNITY OUTREACH
- **TASK 4** - PLANNING CONCEPTS
- **TASK 5** - DRAFT AND FINAL PLAN

TASK 2 - SYSTEM EVALUATION
(DATA COLLECTION, NEEDS ASSESSMENT, OPPORTUNITIES AND CONSTRAINTS)

A. Data Collection

- 2009 Trails Plan and any updated trail information since the 2009 study
- Trail Maps, Aerial Maps
- Existing studies pertaining to bicycle and pedestrian travel
- Elementary and Middle Schools' Safe Routes to School Programs
- Municipal Master Plan, Tax Maps/Easement/ROW Information
- Data (high accident areas, bike/ped accidents)
- Proposed Recreation Department and Development Projects – any new input?
- Steering Committee Input, Public Input

DATA COLLECTION SUMMARY



GIS Data

- 2009 Trails Plan (The Land Conservancy of New Jersey)
  - Existing and Proposed Mount Olive Trails
  - Stephens Park Trail
  - State, County and Municipal Open Space
- Mount Olive Township
  - New & Proposed Mt Olive Trails
- Plan4Safety at CAIT Rutgers
  - Bicycle and Pedestrian Crashes
- Highlands Council
  - Highlands Area
- Transportation
  - Rail Lines and Stations

BICYCLE AND PEDESTRIAN CRASHES (2006-2015)

- 37 Pedestrian Crashes
  0 Fatalities
- 17 Bicyclist Crashes
  1 Fatality

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TASK 2 - SYSTEM EVALUATION
(DATA COLLECTION, NEEDS ASSESSMENT, OPPORTUNITIES AND CONSTRAINTS)

B. Needs Assessment

- **Access** to Turkey Brook Park, HS and Chester M. Stephen's Elementary
- **Center of Mount Olive** (concentrated residential communities)
- **Connections** (on road or off-road to focus areas)
- **Existing Conditions / Opportunities / Constraints** highlighting:
  - Trip generators (schools, etc.), Landmarks
  - Gaps in connectivity
  - Potential ROW and/or easement opportunities for priority off-road connections
  - Proposed development
  - Barrier and conflict locations (pedestrian conflict locations)
  - Desired corridors/connections

TASK 3
COMMUNITY PARTICIPATION (PUBLIC OUTREACH)

A. Visioning Workshop (public)

B. Project PowerPoint or mini "video"

D. Public Information Center

E. Web Survey

F. WikiMapping

TASK 4
REVIEW AND PLANNING CONCEPTS

A. Recommendations and Planning Concepts

- Links between trails, key trip generators
- General recommendations - 5 specific improvements concepts along key routes
- Stakeholder input to guide the assessment / planning level concepts

B. Township Trail Logo / Branding

C. Potential Funding Sources

D. Complete Streets Policy / Review Procedures

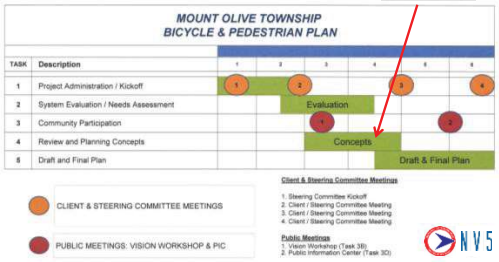
E. Implementation Matrix - Recommendations to assist Township in the development of "problem statements" for future projects

TASK 5
DRAFT / FINAL PLAN

- Executive Summary
- Vision
- Methodology
- Needs Assessment
- Mapping (Existing/Opportunities/ Constraints)
- Concepts and Recommendations
- Implementation Matrix

SCHEDULE

PROJECT STATUS



PUBLIC OUTREACH
DATA COLLECTION

- PUBLIC VISIONING / INPUT
  - MARCH 11, 2017 MOUNT OLIVE HIGH SCHOOL
- ONLINE SURVEY
  - MARCH 2017
- WIKIMAP
  - MARCH 2017

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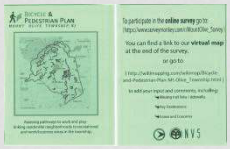
PUBLIC VISIONING / INPUT
MARCH 11, 2017

- Location: Mount Olive High School
- Information Booth
  - Map boards for stakeholder markup
  - Laptop station to complete survey and/or WikiMap
  - Handouts advertising the project



PUBLIC VISIONING / INPUT
MARCH 11, 2017

- Stakeholder Feedback Excerpts from the **Public Visioning**:

Would ride bike on roads if there were **wider shoulders** (High School Student comment)

Did not know we had trails! Live in Flanders area. Have heard about fishing area in Turkey Brook Park but cannot find how to get there and don't know condition of trail. **No signs**.

As a kid could not go anywhere, not until I could drive! (High School Student comment)

Speeding is an issue by the schools- concentration of young drivers, morning commuters, and school busses.

Toys R Us train only comes about once a month - can that section of rail be **converted to trail?**

Getting across **Rt 206** is very difficult.

Need way to get to **Turkey Brook Park from High School**

Use Station Road parking area to access trails - but not sure there is public awareness about what areas can use (private vs. public). Stephens State Parks recently added signs which are helpful. **Education on where trails exist** and which are allowed for public use. In past got chased out of some trails that were on private property.

ONLINE SURVEY

- March 3 – 31, 2017
- Survey Sections included:
  - Pedestrian
  - Bicycling
  - Walking to School
  - Bicycling to School
  - Trails
  - Stores/Businesses Located in the Vicinity of Route 206 and Flanders Bartley Road (CR 613)
  - Turkey Brook Park
  - Budd Lake
  - International Trade Center Area
  - Misc. Feedback

143 Respondents

SURVEY INPUT *(SLIDE 1 OF 2)*

- Survey respondents cited the following streets as the **least safe/comfortable for walking:**
  - Route 46
  - Route 206
  - Sand Shore Road
  - Flanders-Bartley Road
  - Mt Olive
- Most **difficult** pedestrian intersections were **Route 46 and Route 206**.
- Top 3 biggest **challenges** for pedestrians in Mount Olive were, **a lack of a connected sidewalk network (75%); fear of vehicle collisions and traffic (72%); and lack of connections to parks trails, and community destinations (68%).**
- Biggest barrier to **bicycling is "Fear of vehicle collisions and traffic" (90%), followed by "Lack of bicycle lanes and infrastructure" (82%).**
- When asked how frequently do you **bicycle** on the streets on Mount Olive, roughly 45% of respondents answered that they **"Rarely, if ever; I don't think it's safe."**
- 50% of respondents **will not allow their children to walk to school** and 65% of respondents will not allow their children to **bike to school**, citing the same reason: "I don't think there is a safe route for them to walk."

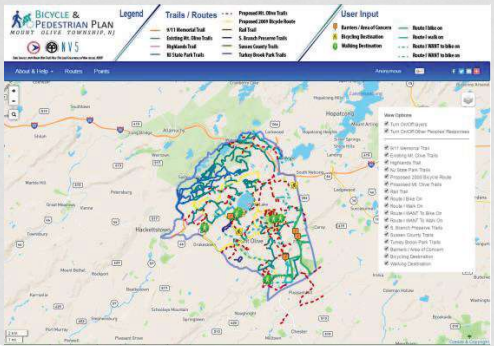
SURVEY INPUT *(SLIDE 2 OF 2)*

- 45% of respondents would be more likely to bicycle or walk to the stores/businesses located in the vicinity **of Route 206 and Flanders Bartley Road (CR613) if there was a continuous sidewalk leading** to the vicinity.
  - 43% mentioned an increased likelihood if there was a continuous trail separated/buffered from the roadway leading to the vicinity.
- When asked to rank the following needs of Turkey Brook Park in their order of importance, respondents most **frequently ranked "Connections to/from the High School, Tinc Road Elementary School, and Chester M. Stephens School"** as number 1, followed second by "Accessible and accurate maps for trail networks."
- "A complete sidewalk network along **roadways surrounding the lake"** was most frequently selected as being most important potential improvement for biking and walking in Mount Olive.

Route 46 along Budd Lake

- "A pedestrian **overpass over Route 46"** was most often **ranked as least important** (amongst given answer choices).

WIKIMAP



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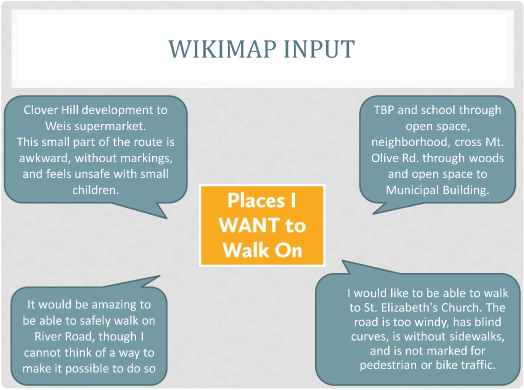
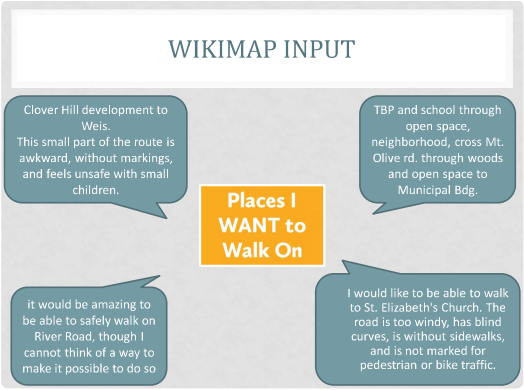

WIKIMAP INPUT
Clover Hill development to Weis supermarket.
This small part of the route is awkward, without markings, and feels unsafe with small children.
TBP and school through open space, neighborhood, cross Mt. Olive Rd. through woods and open space to Municipal Building.
Places I WANT to Walk On
It would be amazing to be able to safely walk on River Road, though I cannot think of a way to make it possible to do so
I would like to be able to walk to St. Elizabeth's Church. The road is too windy, has blind curves, is without sidewalks, and is not marked for pedestrian or bike traffic.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LOCAL BIKE /WALK NETWORK CONNECTION ***CONSIDERATIONS***

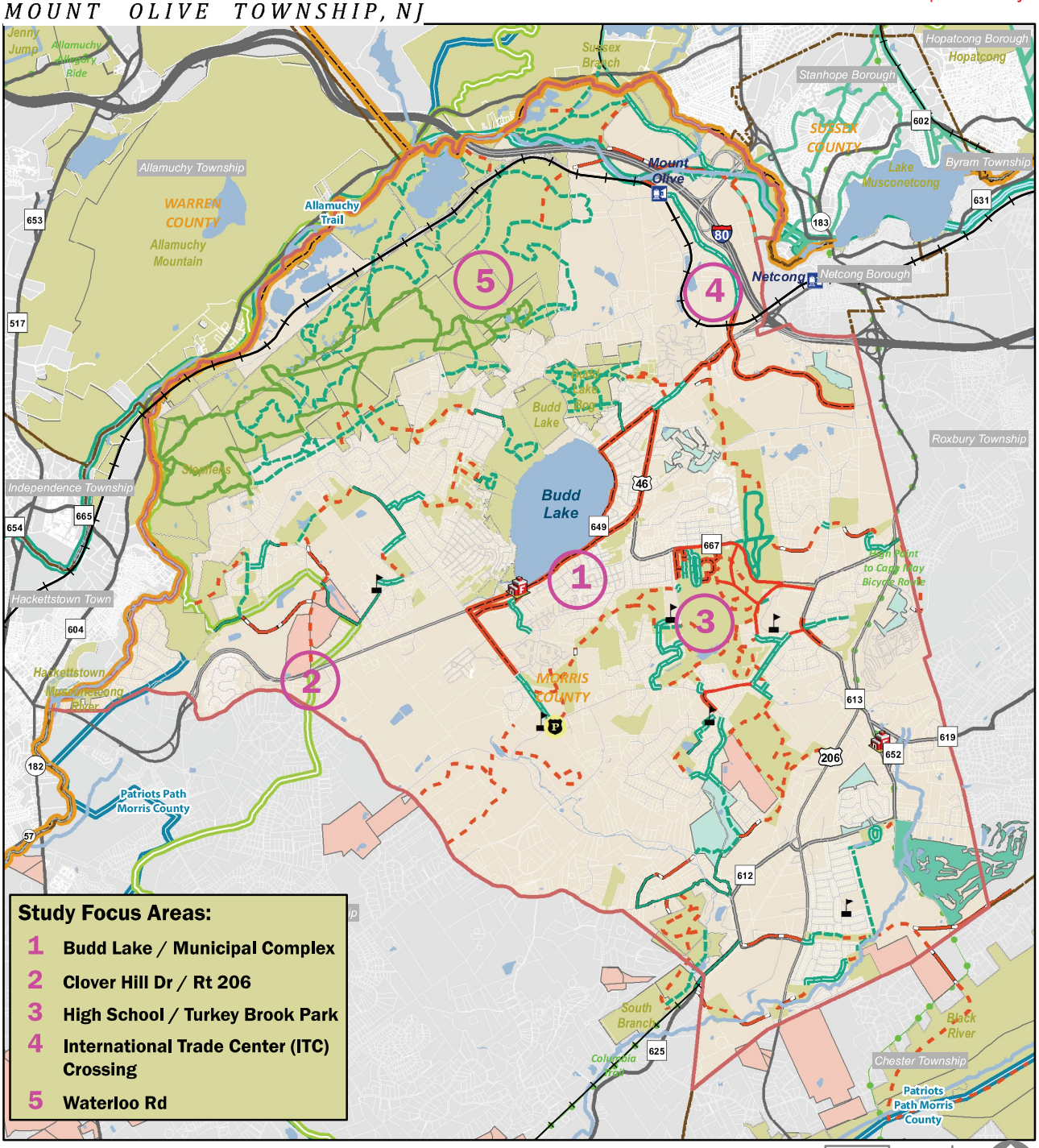
for Steering Committee Discussion

05/24/2017

BICYCLE & PEDESTRIAN PLAN

MOUNT OLIVE TOWNSHIP, NJ

Working Draft
For Discussion Purposes Only



Legend

- Mt Olive Township
- Neighboring Municipalities
- County Border
- Public Parks and Land
- Preserved Farmland
- Water Body
- Rivers / Streams
- Fire Stations
- Police
- Schools
- Flanders Valley Golf Course
- ROSI-Conservation Easement
- Stephens Park Trail
- Sussex County Trails
- Highlands Trail
- Morris Canal
- Liberty - Water Gap Trail

Existing Trails (2009 Trails Plan)

- Blazed
- Unblazed
- Roadwalk
- Sidewalk or Paved Path

Proposed Trails (2009 Trails Plan)

- Blazed
- Requires Easement
- Sidewalk

- New Proposed Trails (Since 2009)
- NJDOT Bike Routes

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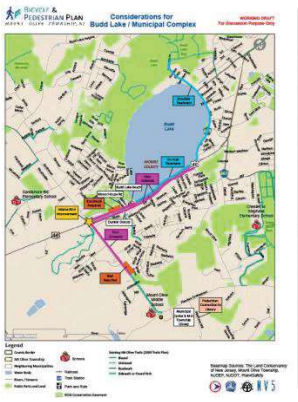
CONSIDERATIONS FOR BUDD LAKE / MUNICIPAL COMPLEX



Sand Shore Road - existing conditions

Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

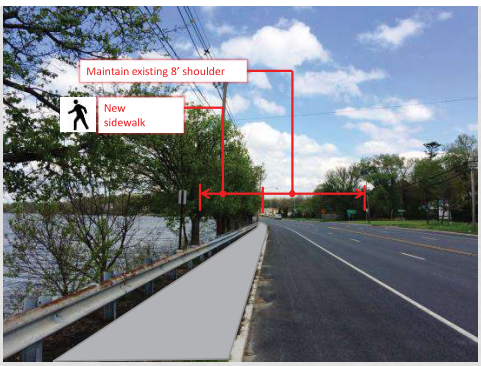
Sand Shore Road - traffic calming, painted shoulder treatment

Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

Rt. 46 S.B. & N.B. - existing conditions

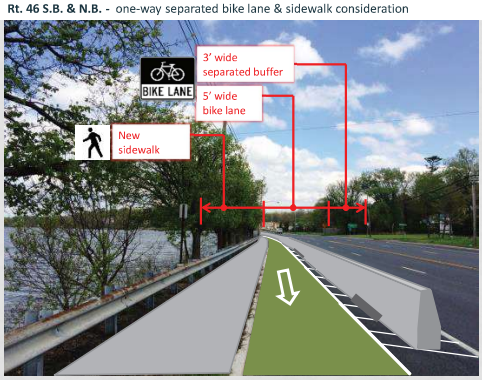
Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

Rt. 46 S.B. & N.B. - sidewalk consideration



Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

Rt. 46 S.B. & N.B. - one-way separated bike lane & sidewalk consideration



Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

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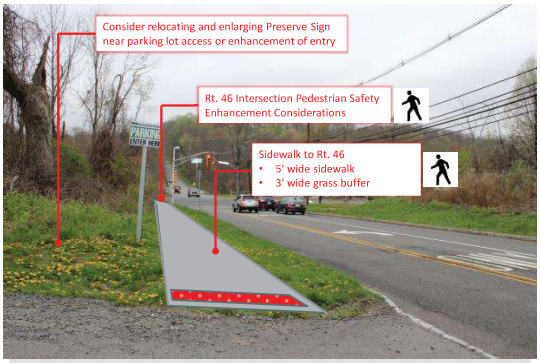
Wolfe Road - existing conditions (South Branch Preserve to Rt. 46)

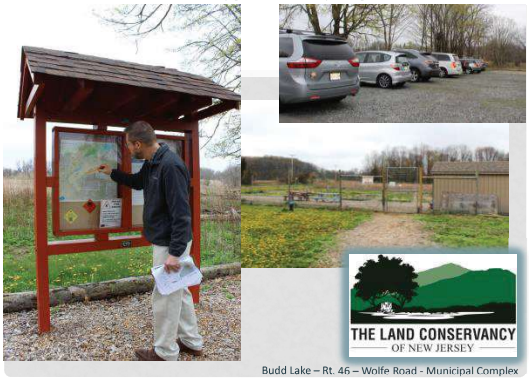
Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

Wolfe Road - sidewalk connection (South Branch Preserve to Rt. 46)



Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

South Branch Preserve – community garden, trail and parking

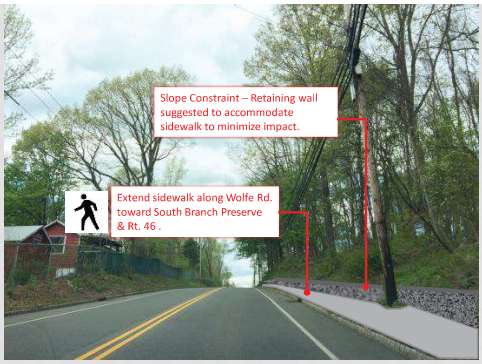


Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

Wolfe Road - existing ROW slope constraint

Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

Wolfe Road - sidewalk & retaining wall



Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

Library - existing conditions

Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

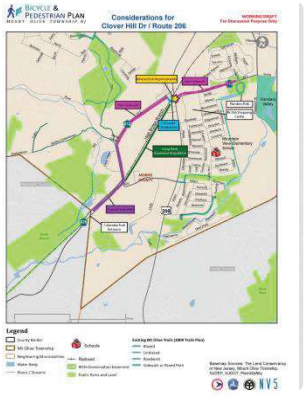
05/24/2017

Library - pedestrian access

Budd Lake – Rt. 46 – Wolfe Road - Municipal Complex

05/24/2017

CONSIDERATIONS FOR CLOVER HILL DR / ROUTE 206



Flanders Park

Columbia Trail– Rt. 206 Shopping – Flanders Park

Flanders Park – existing sidewalk along Flanders Bartley Road

Columbia Trail– Rt. 206 Shopping – Flanders Park

Flanders Bartley Road – existing conditions approaching Rt. 206

Columbia Trail– Rt. 206 Shopping – Flanders Park

Flanders Bartley Road – extend sidewalk to Rt. 206

Columbia Trail– Rt. 206 Shopping – Flanders Park

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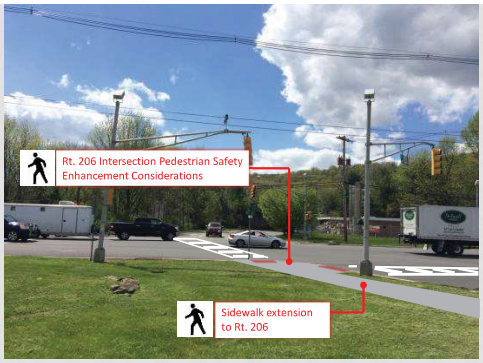
Rt. 206 / Flanders Bartley Road Intersection – existing conditions

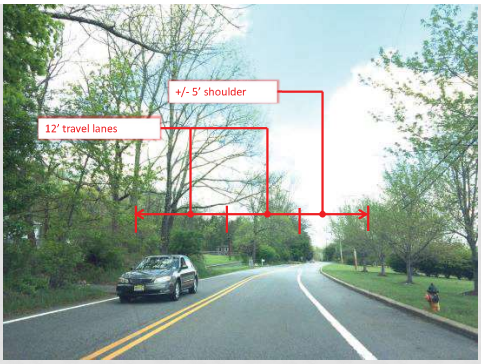
Columbia Trail– Rt. 206 Shopping – Flanders Park

Rt. 206 / Flanders Bartley Road Intersection – improvement considerations



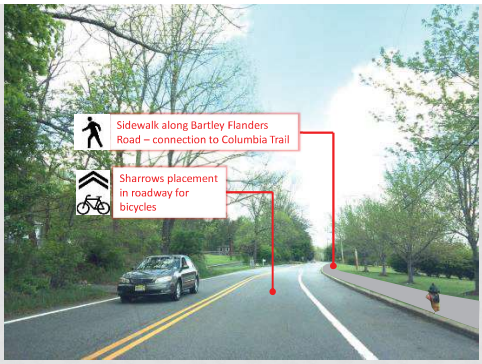
Columbia Trail– Rt. 206 Shopping – Flanders Park

Bartley Flanders Road – existing conditions



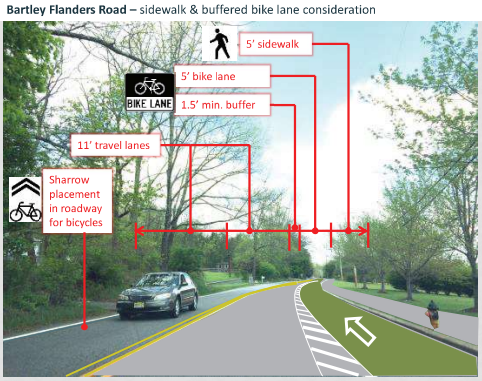
Columbia Trail– Rt. 206 Shopping – Flanders Park

Bartley Flanders Road – sidewalk & sharrows



Columbia Trail– Rt. 206 Shopping – Flanders Park

Bartley Flanders Road – sidewalk & buffered bike lane consideration



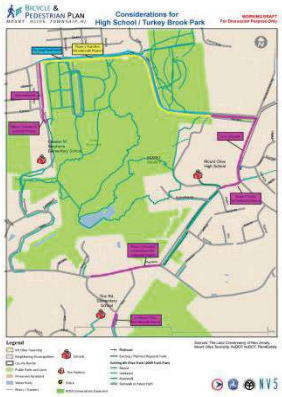
Columbia Trail– Rt. 206 Shopping – Flanders Park

Columbia Trail - trail access along Bartley Flanders Road

Columbia Trail– Rt. 206 Shopping – Flanders Park

05/24/2017

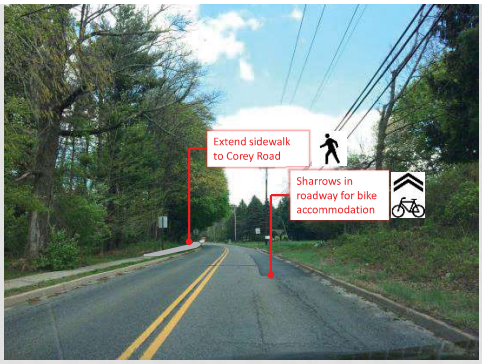
CONSIDERATIONS FOR HIGH SCHOOL / TURKEY BROOK PARK



Flanders Drakestown Road – existing conditions

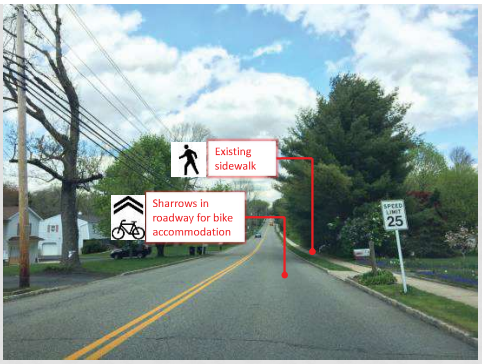
Tinc Road School– High School – Turkey Brook Park

Flanders Drakestown Road – extend sidewalk to Corey Road (*proposed township plan*)



Tinc Road School– High School – Turkey Brook Park

Corey Road – existing conditions



Tinc Road School– High School – Turkey Brook Park

Corey Road/ Mount Olive High School – existing conditions

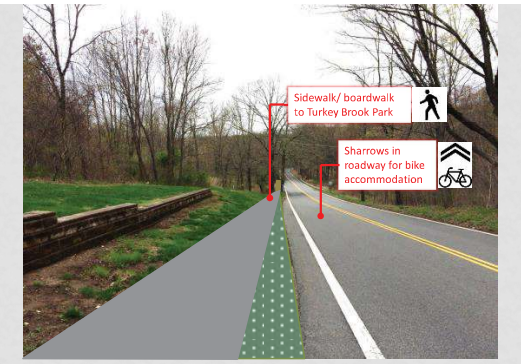
Tinc Road School– High School – Turkey Brook Park

Flanders Road – existing conditions

Tinc Road School– High School – Turkey Brook Park

05/24/2017

Flanders Road – sidewalk/ boardwalk (*proposed Township plan*)



Tinc Road School– High School – Turkey Brook Park

Flanders Road – connections to Turkey Brook trail network

Tinc Road School– High School – Turkey Brook Park

Flanders Road – parking lot with access to Turkey Brook trail network

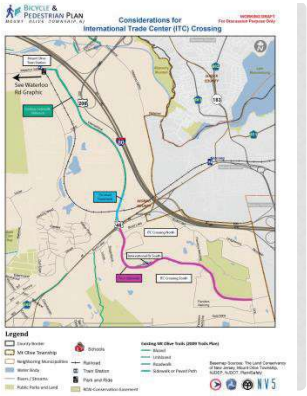
Tinc Road School– High School – Turkey Brook Park

Turkey Brook Park

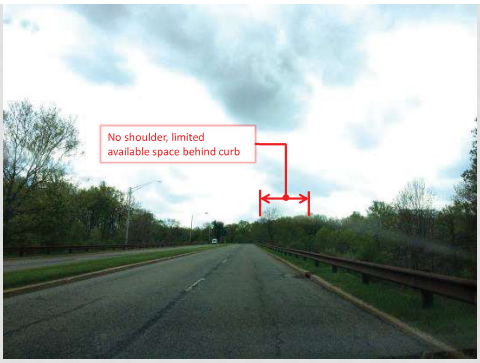
Tinc Road School– High School – Turkey Brook Park

05/24/2017

CONSIDERATIONS FOR INTERNATIONAL TRADE CENTER (ITC) CROSSING

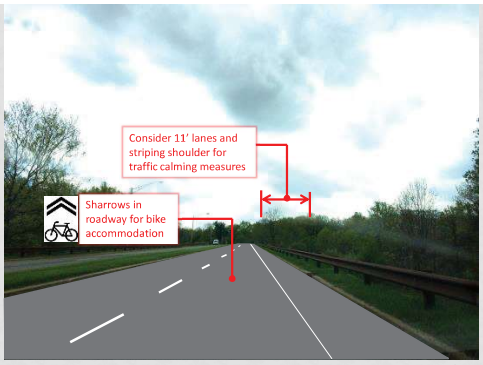


ITC North – existing NJ Transit overpass (S.B. side)



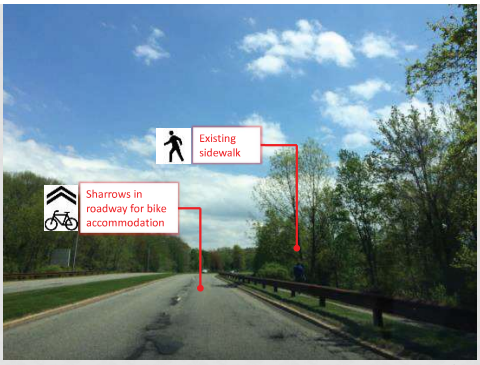
ITC – Train Station – Waterloo Road

ITC North –NJ Transit overpass (S.B. & N.B. side)



ITC – Train Station – Waterloo Road

ITC North – existing sidewalk path (S.B. side)



ITC – Train Station – Waterloo Road

ITC North – existing sidewalk path (S.B. side)

ITC – Train Station – Waterloo Road

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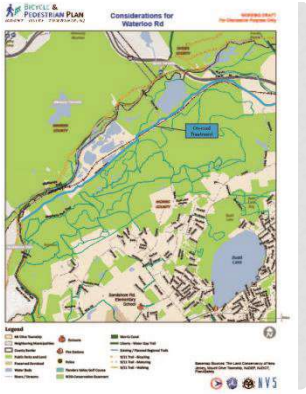
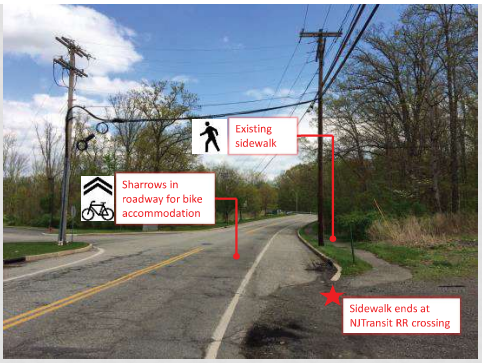
CONSIDERATIONS FOR WATERLOO ROAD

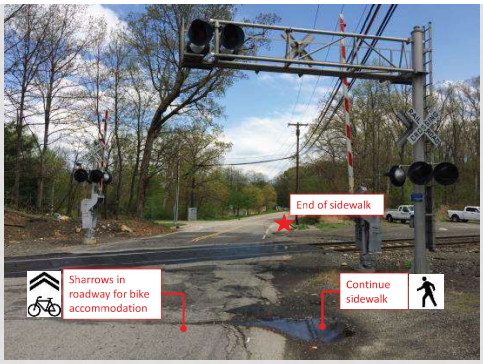


Waterloo Valley Road / Train Station – existing sidewalk path at R.R. tracks (S.B. side)



ITC – Train Station – Waterloo Road

Waterloo Valley Road / Train Station – existing sidewalk path at R.R. tracks (S.B. side)



ITC – Train Station – Waterloo Road

Waterloo Valley Road / Train Station – existing conditions

ITC – Train Station – Waterloo Road

Waterloo Valley Rd / Stephen's State Park – existing roadway conditions

ITC – Train Station – Waterloo Road

Waterloo Valley Rd / Stephen's State Park – repave & sharrows

ITC – Train Station – Waterloo Road

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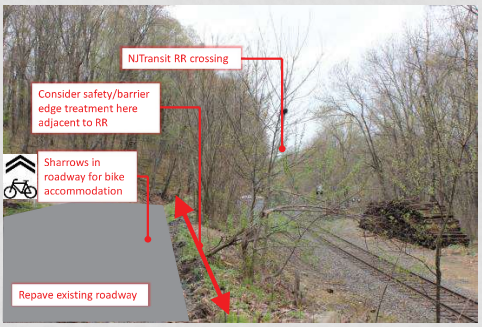
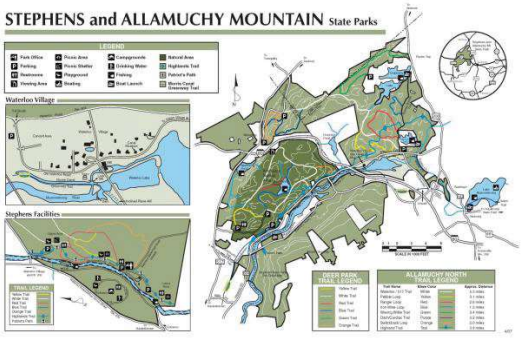
Waterloo Valley Rd / Stephen's State Park – at NJTransit R.R. track crossing



ITC – Train Station – Waterloo Road

Waterloo Valley Road / Train Station – existing sidewalk path at R.R. tracks (S.B. side)



Map courtesy of NJDEP

ITC – Train Station – Waterloo Road

STEERING COMMITTEE FEEDBACK ON CONCEPT CONSIDERATIONS

Additional Comments

OVERALL TOWNSHIP CONSIDERATIONS

- Trail Map (web updates, conditions)
- Mile Markers (roads and trails)
- Trail Head Improvements
- Wayfinding
- Development Connections
- Complete Streets Policy
- Other Considerations

NEXT STEPS

- Update Concepts based on Steering Feedback
- Coordinate refined concepts to show public (meeting and/or email coordination)
- Schedule PIC / Press Release / PIC
- Meeting after PIC and Draft Plan
- Final Plan

Appendix E: Status Meeting

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Project Status Meeting Notes

December 14, 2017
11:00 AM
Mount Olive Municipal Building

Attendees: See attached Sign-In Sheet

Status Meeting Notes:

- NV5 provided a general overview of the project purpose and tasks completed to date.
- Some concern was expressed by Mount Olive about the use of sharrows and that people may not understand them. NV5 explained this could be mitigated through community education and/or new signing options.
- Andrew will be reviewing the concepts further from the May Steering Committee 2017 Meeting and get back to NV5 with any comments/concerns.
- Mount Olive has completed the new logo process and will forward an electronic copy to NV5. They have already begun to integrate the logo including placing signs on the Department of Public Works vehicles.
- The Mount Olive beach access along Route 46 is scheduled to re-open this coming season (2018) after closing in 2015. This further heightens the importance of safe bike/pedestrian access along Route 46 and access across Route 46 near Budd Lake.
- Mount Olive is in the process of extending sidewalks along Corey Road from the High School to Flanders Netcong Road. Andrew can provide plans for the improvements.
- Mount Olive has made some recent changes to its school bus service and some areas close to some schools may no longer receive bussing. Need to review the update on this change from the Board of Education.
- Mount Olive would like to schedule the final Public Information Center for the project as part of their Cabin Fever Reliever Event on Saturday, February 10th from 10am – 2pm. This event will take place at the Senior Center on 204 Flanders Drakestown Road.
- Mount Olive expressed that they would like to discuss options/next steps along NJDOT roadways with NJDOT representatives once they get feedback from public.
- NV5 will assemble and provide a CD to Mount Olive to include project deliverables and correspondence to date.

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

STATUS MEETING

DECEMBER 14, 2017
11:00 AM at Mount Olive Municipal Building

SIGN IN SHEET

NAME	AFFILIATION	PHONE NUMBER	EMAIL ADDRESS
Denice daCunha	NV5/RBA	973-946-5624	Denice.daCunha@NV5.com
Charlie Cunion	NV5/RBA	973 946 5623	Charles.Cunion@NV5.com
Andrew Tataranko	MOT	973-691-0900	ATataranko@mtolivetwp.org
Claudia Tomasello	MO Township	973-691-0900	Ctomasello@mtolivetwp.org

NV5

Appendix F: Public Outreach Summary

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Public Outreach Summary
Review of Planning Concepts for Consideration

Saturday, February 10th, 2018
10:00 AM- 1:30 PM
Mount Olive Township Senior Center

Project Team Attendees: Denice daCunha and Dede Murray, NV5 (formerly the RBA Group)
Bill Riviere, NJDOT Office of Bicycle & Pedestrian Programs

Summary Notes:

- Attendees of the annual Mount Olive Township event called the "Cabin Fever Reliever" were provided the opportunity to learn about the project and planning recommendations, ask questions and were given the option to provide either verbal feedback on the recommendations to project team representatives or written feedback on a comment sheet.
- NV5 provided a methodology chart (see attached) showcasing the process of the project (including data collection, meetings, outreach, mapping, field investigations, mapping, and the development of planning concepts for consideration), making note of the projects time table and progress. NV5 also provided a Recommendations Board which provided graphics of specific recommendations with an overall map to reference their locations.
- A mapping exercise was available where attendees were given red and green stickers and could place the stickers next to the recommendations they liked (with a green sticker) or disliked (with a red sticker) on the Recommendations Board.
- Some attendees placed numbers on the colored dots they placed on the Recommendations Board; and further explained their input on a comment sheet.
- Many attendees commented about connectivity, accessibility, safety, and signage.
- It was noted by an attendee that a gate exists on Waterloo Valley Road.
- In summary, the planning level recommendations were well received by attendees.

Attachments:
-Event Photos
-Comment Sheets
-Methodology Chart
-Recommendations Board w/ Attendee Input

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Your input today is key in the development of the township's Bicycle and Pedestrian Plan!

Let us know if you have any additional comments about the bicycle and pedestrian recommendations designed for Mount Olive Township in the space below. When you are done, please drop this sheet into the Comments box at our station.

Footnote #1 on map board: Develop a connector west side of trade center mall to entrance of trade center. Route behind Wolmart and Applebees down to Route 46, and then into trade center on north side of 46 (use existing pedestrian light/buttons).

Thanks.

NV5

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Your input today is key in the development of the township's Bicycle and Pedestrian Plan!

Let us know if you have any additional comments about the bicycle and pedestrian recommendations designed for Mount Olive Township in the space below. When you are done, please drop this sheet into the Comments box at our station.

Could you add more parking spaces at the end of the Columbia Trail in Flanders

NV5

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Your input today is key in the development of the township's Bicycle and Pedestrian Plan!

Let us know if you have any additional comments about the bicycle and pedestrian recommendations designed for Mount Olive Township in the space below. When you are done, please drop this sheet into the Comments box at our station.

I'd like to see paved trails that entice a young family with strollers or a grandparent can go on and enjoy being outside. They would don't have to be very long. A treat like a waterfall or a vista at about a mile would be wonderful.

NV5

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Your input today is key in the development of the township's Bicycle and Pedestrian Plan!

Let us know if you have any additional comments about the bicycle and pedestrian recommendations designed for Mount Olive Township in the space below. When you are done, please drop this sheet into the Comments box at our station.

Corey Road around high school would definitely benefit from a designated bike ~~to~~ track so kids can easily bike to high school.

NV5

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Your input today is key in the development of the township's Bicycle and Pedestrian Plan!

Let us know if you have any additional comments about the bicycle and pedestrian recommendations designed for Mount Olive Township in the space below. When you are done, please drop this sheet into the Comments box at our station.

Identify streets frequently used by runners and bikers. Public outreach is crucial. Invite social media connections for active community participation. This initiative brings significant quality of life improvements to the community.

NV5

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Your input today is key in the development of the township's Bicycle and Pedestrian Plan!

Let us know if you have any additional comments about the bicycle and pedestrian recommendations designed for Mount Olive Township in the space below. When you are done, please drop this sheet into the Comments box at our station.

- Extend sidewalk from school to Tinc (marked on board w/ #2)
- Everything is named Flanders / Drakestown Rd
- Bennington neighborhood to Vista Dr must cut through school; can't push stroller

* Comments recorded by Project Team members (Dd & DM)

NV5

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Your input today is key in the development of the township's Bicycle and Pedestrian Plan!

Let us know if you have any additional comments about the bicycle and pedestrian recommendations designed for Mount Olive Township in the space below. When you are done, please drop this sheet into the Comments box at our station.

- High School & Middle School students walk in streets rather than sidewalks
- Police officers tell them to use sidewalk
- Braille Trail needs signage – how to get there
- Trails need mile markers so users can track their distance
- Need trail head markers
- Need direct access from Oakwood Village to walk or bike w/ family (marked on board w/ #3)

* Comments recorded by Project Team members (Dd & DM)

NV5

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

METHODOLOGY

NV5

PUBLIC OUTREACH

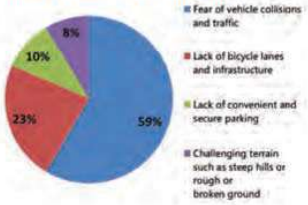
VISIONING WORKSHOP

ROBOTICS EVENT (Mar'17)

PUBLIC SURVEY & WIKIMAP
(Mar'17-Apr'17)

Findings:
The survey respondents identified 5 concept areas in Mount Olive which helped develop the specific concept recommendations as shown on the right.

Biggest Barriers to Bicycling



Primary Reasons for Bicycling
- Recreation
- Errands
- Commute to Transit or Work
- Health
- Family Time

NEEDS ASSESMENT
(Apr /May '17)

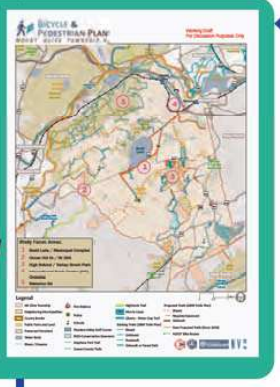
PUBLIC INFORMATION CENTER (Feb'18)

CABIN FEVER RELIEVER

YOUR input today is **KEY** in the development of **Mount Olive's Bicycle and Pedestrian Plan!**

Data Collection / Analysis
(Field reviews, GIS mapping)

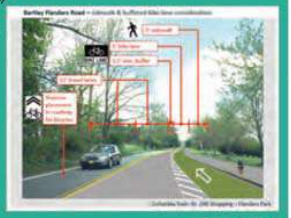
Concept Areas Map
to connect major destinations (schools, parks, etc) and residential neighborhoods in and around Mount Olive and to prioritize those locations when funding for improvemets are allocated



Opportunities & Constraints
to assess the Township's transportation system in terms of its capability to safely accommodate bicycle and pedestrian travel by identifying barriers and gaps in connectivity

Concept Recommendations
(Overall & Specific Locations)

- *Trail Map (web updates, conditions)*
- *Mile Markers (roads and trails)*
- *Trail Head Improvements*
- *Wayfinding*
- *Development Connections*
- *Complete Streets Policy*

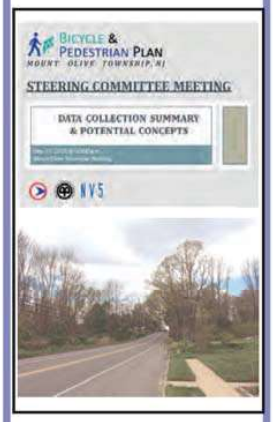


(example)

Draft / Final Plan
Feb/Mar'18

STEERING COMMITTEE

MEETING #1
(Jan '17)



MEETING #2
(May '17)

COORDINATION MEETING
(Dec'17)

COORDINATION / REVIEW WITH **MOUNT OLIVE TOWNSHIP** AND **NJDOT** OFFICE OF BICYCLE & PEDESTRIAN PROGRAMS

BICYCLE & PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

MOUNT OLIVE TOWNSHIP BICYCLE & PEDESTRIAN PLAN

Study Recommendations

For Discussion Purposes Only
February 2018

THIS DOCUMENT IS A WORK IN PROGRESS. PLEASE DO NOT REPLICATE. IT HAS BEEN RELEASED AS CLASSIFIED ADVISORY, CONSULTATIVE AND DELIBERATIVE MATERIAL PURSUANT TO N.J.S.A 47:1A-1.1. IT IS INTENDED FOR REVIEW AND COMMENT PURPOSES ONLY.

NV5

2017 Mount Olive Bicycle and Pedestrian Plan Survey

Tuesday, April 11, 2017

143

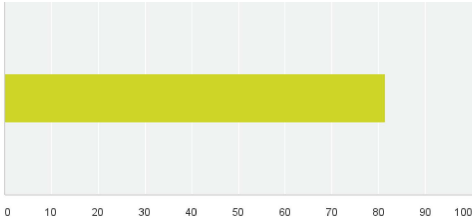
Total Responses

Date Created: Wednesday, February 08, 2017

Complete Responses: 79

Q2: How important is it to you to improve conditions for walking in Mount Olive?

Answered: 139 Skipped: 4



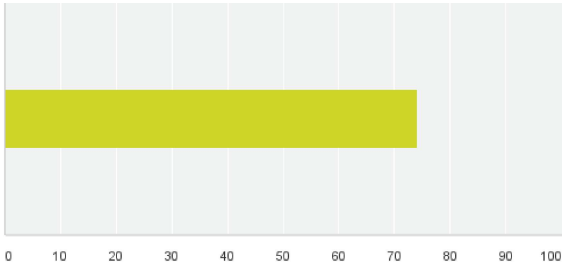
Q2: How important is it to you to improve conditions for walking in Mount Olive?

Answered: 139 Skipped: 4

Answer Choices	Average Number	Total Number	Responses
	81	11,304	139
Total Respondents: 139			

Q3: How important is it to you to improve conditions for bicycling in Mount Olive?

Answered: 137 Skipped: 6



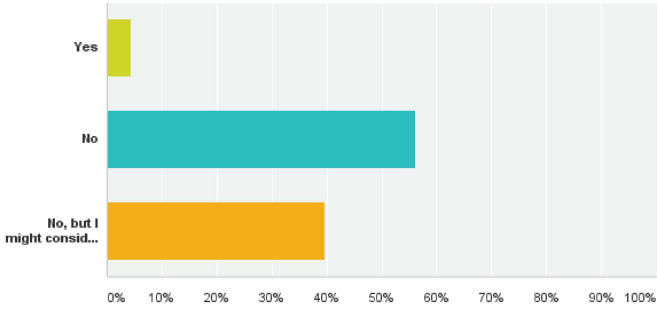
Q3: How important is it to you to improve conditions for bicycling in Mount Olive?

Answered: 137 Skipped: 6

Answer Choices	Average Number	Total Number	Responses
	74	10,163	137
Total Respondents: 137			

Q4: Do you use public transportation to go to work or other destination(s)?

Answered: 139 Skipped: 4



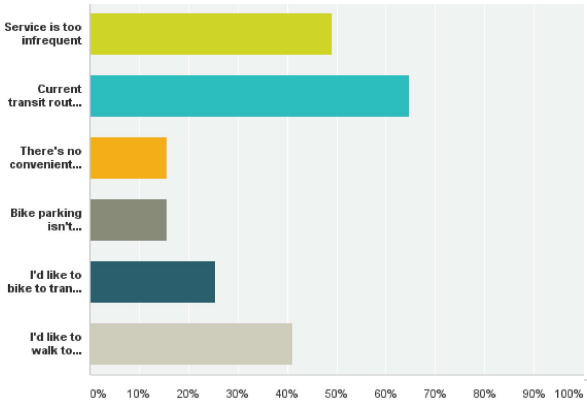
Q4: Do you use public transportation to go to work or other destination(s)?

Answered: 139 Skipped: 4

Answer Choices	Responses	
Yes	**4.32%**	6
No	**56.12%**	78
No, but I might consider it if it were more convenient.	**39.57%**	55
Total		**139**

currently inconvenient about using public transportation in Mount Olive. Check all that apply.

Answered: 51 Skipped: 92



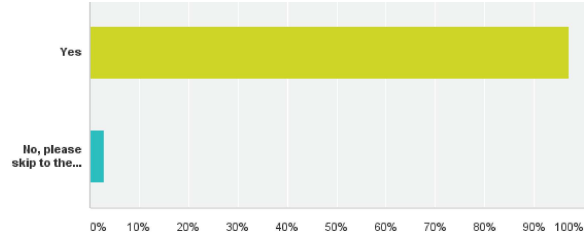
currently inconvenient about using public transportation in Mount Olive. Check all that apply.

Answered: 51 Skipped: 92

Answer Choices	Responses	
Service is too infrequent	49.02%	25
Current transit routes don't take me where I need to go and/or are too circuitous	64.71%	33
There's no convenient parking for my car near transit	15.69%	8
Bike parking isn't conveniently located and/or adequate	15.69%	8
I'd like to bike to transit but I don't feel like there is a safe route	25.49%	13
I'd like to walk to transit, but I don't think there is a safe route	41.18%	21
Total Respondents: 51		

Q7: Are you willing to answer some questions about pedestrian issues in Mount Olive?

Answered: 135 Skipped: 8



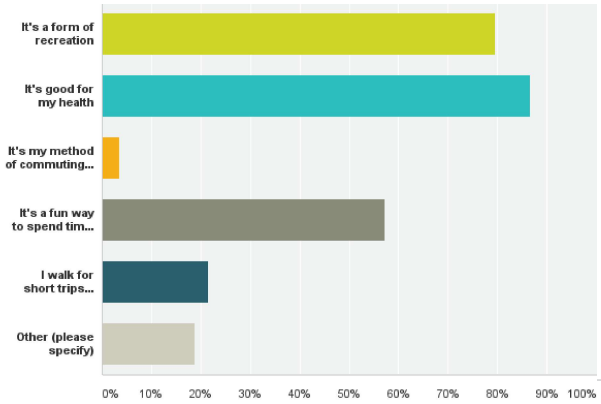
Q7: Are you willing to answer some questions about pedestrian issues in Mount Olive?

Answered: 135 Skipped: 8

Answer Choices	Responses	
Yes	97.04%	131
No, please skip to the next section of the survey	2.96%	4
Total		**135**

Q8: What are your primary reasons for walking in Mount Olive? (please check all that apply)

Answered: 112 Skipped: 31



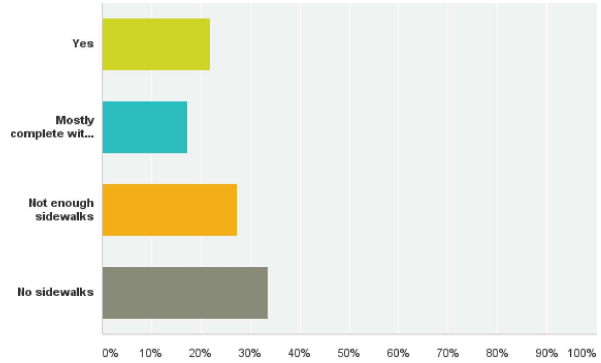
Q8: What are your primary reasons for walking in Mount Olive? (please check all that apply)

Answered: 112 Skipped: 31

Answer Choices	Responses	
It's a form of recreation	79.46%	89
It's good for my health	86.61%	97
It's my method of commuting (to work or transit)	3.57%	4
It's a fun way to spend time with family and friends	57.14%	64
I walk for short trips (store, errands)	21.43%	24
Other (please specify)	18.75%	21
Total Respondents: 112		

Q9: Is the sidewalk network near your home complete?

Answered: 110 Skipped: 33



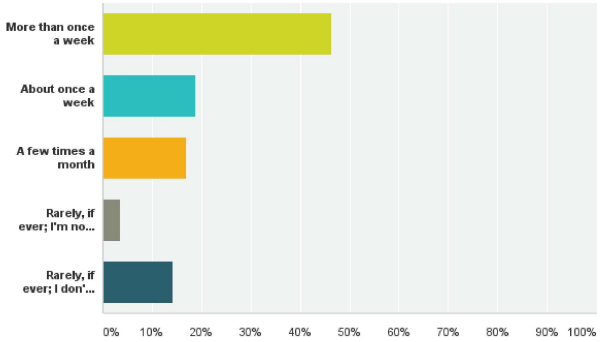
Q9: Is the sidewalk network near your home complete?

Answered: 110 Skipped: 33

Answer Choices	Responses	
Yes	21.82%	24
Mostly complete with some gaps	17.27%	19
Not enough sidewalks	27.27%	30
No sidewalks	33.64%	37
Total		110

Q10: How frequently do you walk in Mount Olive (weather permitting)?

Answered: 112 Skipped: 31



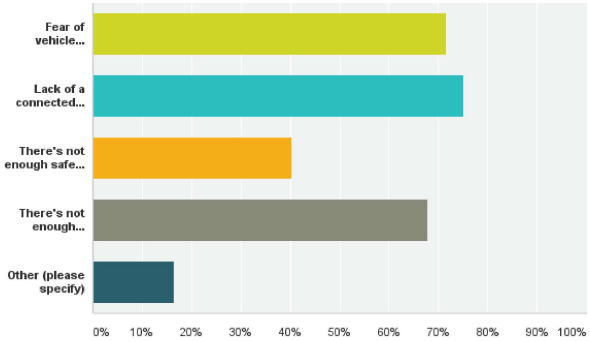
Q10: How frequently do you walk in Mount Olive (weather permitting)?

Answered: 112 Skipped: 31

Answer Choices	Responses	
More than once a week	46.43%	52
About once a week	18.75%	21
A few times a month	16.96%	19
Rarely, if ever; I'm not interested	3.57%	4
Rarely, if ever; I don't think it's safe	14.29%	16
Total		**112**

Q12: What do you think the biggest challenges are for pedestrians in Mount Olive? (please check all that apply)

Answered: 109 Skipped: 34



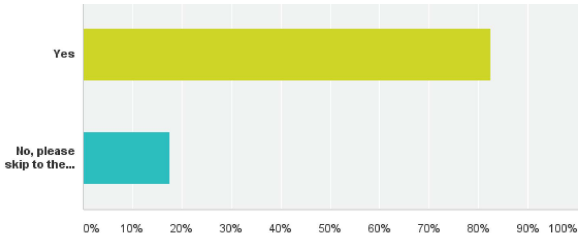
Q12: What do you think the biggest challenges are for pedestrians in Mount Olive? (please check all that apply)

Answered: 109 Skipped: 34

Answer Choices	Responses	
Fear of vehicle collisions and traffic	71.56%	78
Lack of a connected sidewalk network	75.23%	82
There's not enough safe street crossings	40.37%	44
There's not enough connections to parks, trails, and community destinations	67.89%	74
Other (please specify)	16.51%	18
Total Respondents: 109		

Q15: Are you willing to answer a few short questions about bicycling in Mount Olive?

Answered: 114 Skipped: 29



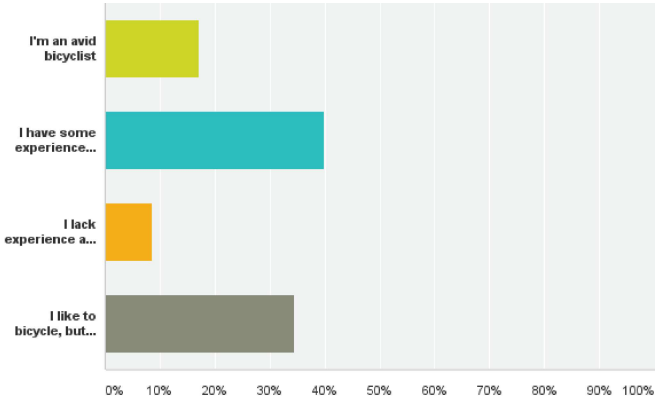
Q15: Are you willing to answer a few short questions about bicycling in Mount Olive?

Answered: 114 Skipped: 29

Answer Choices	Responses	
Yes	82.46%	94
No, please skip to the next section of the survey	17.54%	20
Total		114

Q16: Please identify your level of experience and skill as a bicyclist.

Answered: 93 Skipped: 50



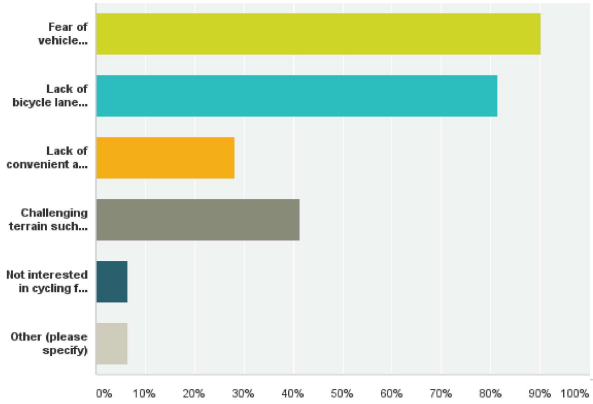
Q16: Please identify your level of experience and skill as a bicyclist.

Answered: 93 Skipped: 50

Answer Choices	Responses	
I'm an avid bicyclist	17.20%	16
I have some experience bicycling but I'm not comfortable in all conditions	39.78%	37
I lack experience and don't feel comfortable riding on the street	8.60%	8
I like to bicycle, but only in parks or places where there are bicycle facilities separated from traffic	34.41%	32
Total		93

Q17: What do you think the biggest barrier is to bicycling in Mount Olive? (Please check all that apply)

Answered: 92 Skipped: 51



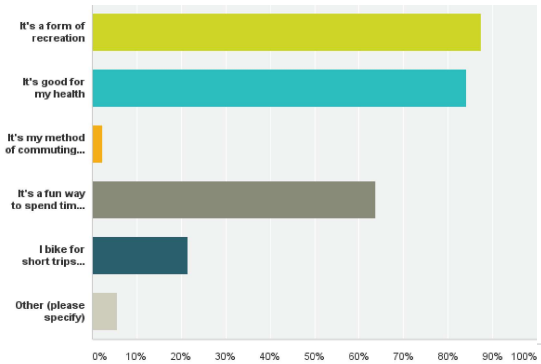
Q17: What do you think the biggest barrier is to bicycling in Mount Olive? (Please check all that apply)

Answered: 92 Skipped: 51

Answer Choices	Responses	
Fear of vehicle collisions and traffic	90.22%	83
Lack of bicycle lanes and infrastructure	81.52%	75
Lack of convenient and secure parking	28.26%	26
Challenging terrain such as steep hills or rough or broken ground	41.30%	38
Not interested in cycling for transportation or recreation	6.52%	6
Other (please specify)	6.52%	6
Total Respondents: 92		

Q18: What are your primary reasons for bicycling in Mount Olive? (Please check all that apply)

Answered: 88 Skipped: 55



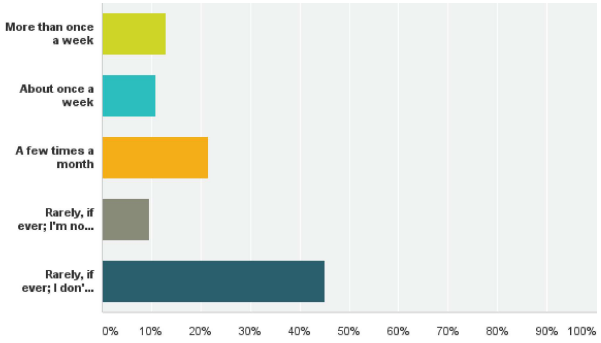
Q18: What are your primary reasons for bicycling in Mount Olive? (Please check all that apply)

Answered: 88 Skipped: 55

Answer Choices	Responses	
It's a form of recreation	87.50%	77
It's good for my health	84.09%	74
It's my method of commuting (to work or transit)	2.27%	2
It's a fun way to spend time with family and friends	63.64%	56
I bike for short trips (store, errands)	21.59%	19
Other (please specify)	5.68%	5
Total Respondents: 88		

Q19: How frequently do you bicycle (on streets) in Mount Olive?

Answered: 93 Skipped: 50



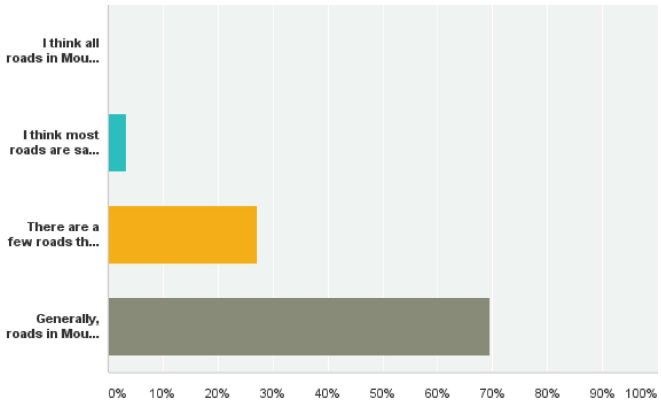
Q19: How frequently do you bicycle (on streets) in Mount Olive?

Answered: 93 Skipped: 50

Answer Choices	Responses	
More than once a week	12.90%	12
About once a week	10.75%	10
A few times a month	21.51%	20
Rarely, if ever; I'm not interested	9.68%	9
Rarely, if ever; I don't think it's safe	45.16%	42
Total		93

Q21: Can you tell us how safe you think streets in Mount Olive are for bicycling?

Answered: 92 Skipped: 51



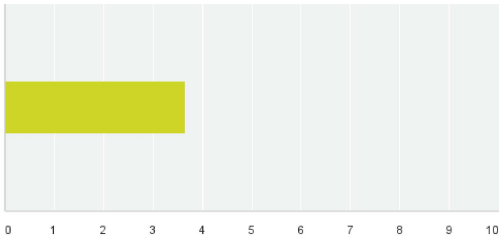
Q21: Can you tell us how safe you think streets in Mount Olive are for bicycling?

Answered: 92 Skipped: 51

Answer Choices	Responses	
I think all roads in Mount Olive are safe for bicycling	0.00%	0
I think most roads are safe for bicycling in Mount Olive	3.26%	3
There are a few roads that aren't safe for bicycling in Mount Olive	27.17%	25
Generally, roads in Mount Olive aren't safe for bicycling	69.57%	64
Total		92

Q23: How comfortable would you feel riding on a street with no bicycle facility (pictured below)?

Answered: 83 Skipped: 60



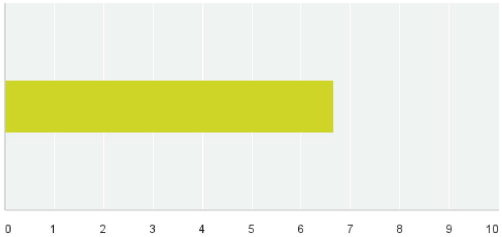
Q23: How comfortable would you feel riding on a street with no bicycle facility (pictured below)?

Answered: 83 Skipped: 60

Answer Choices	Average Number	Total Number	Responses
	4	303	83
Total Respondents: 83			

Q24: How comfortable would you feel riding on a bike lane (pictured below)?

Answered: 81 Skipped: 62



Q24: How comfortable would you feel riding on a bike lane (pictured below)?

Answered: 81 Skipped: 62

Answer Choices	Average Number	Total Number	Responses
	7	539	81
Total Respondents: 81			

Q25: How comfortable would you feel riding on a protected bike lane (pictured below)?

Answered: 85 Skipped: 58

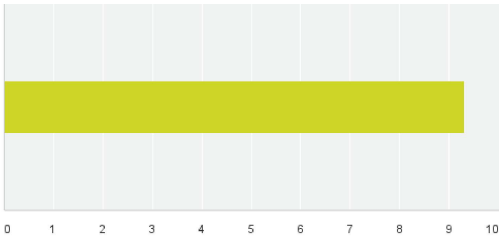
Q25: How comfortable would you feel riding on a protected bike lane (pictured below)?

Answered: 85 Skipped: 58

Answer Choices	Average Number	Total Number	Responses
	8	698	85
Total Respondents: 85			

Q26: How comfortable would you feel riding on a separated paved multi-use path (pictured below)?

Answered: 85 Skipped: 58



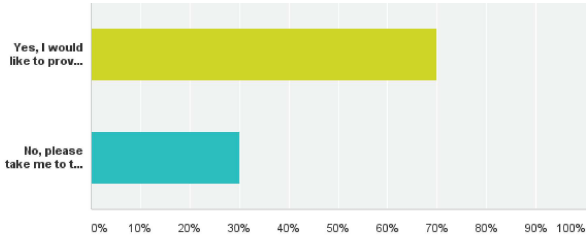
Q26: How comfortable would you feel riding on a separated paved multi-use path (pictured below)?

Answered: 85 Skipped: 58

Answer Choices	Average Number	Total Number	Responses
	9	792	85
Total Respondents: 85			

indicate whether you would like to take part in this part of the survey or skip to the next section.

Answered: 103 Skipped: 40



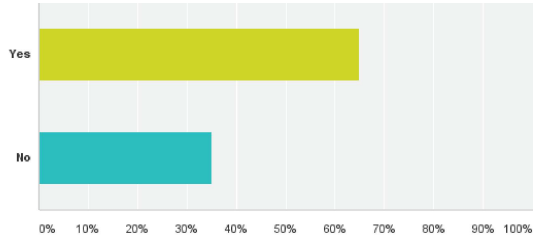
indicate whether you would like to take part in this part of the survey or skip to the next section.

Answered: 103 Skipped: 40

Answer Choices	Responses
Yes, I would like to provide input about safe walking and biking access to schools in Mount Olive	69.90% 72
No, please take me to the next section of the survey	30.10% 31
Total	103

Q28: Do you have school age children?

Answered: 74 Skipped: 69



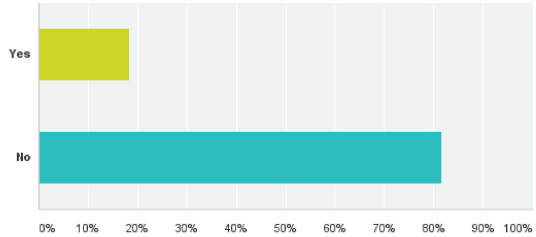
Q28: Do you have school age children?

Answered: 74 Skipped: 69

Answer Choices	Responses	
Yes	64.86%	48
No	35.14%	26
Total		74

Q29: Do you have children who walk to school in Mount Olive?

Answered: 49 Skipped: 94



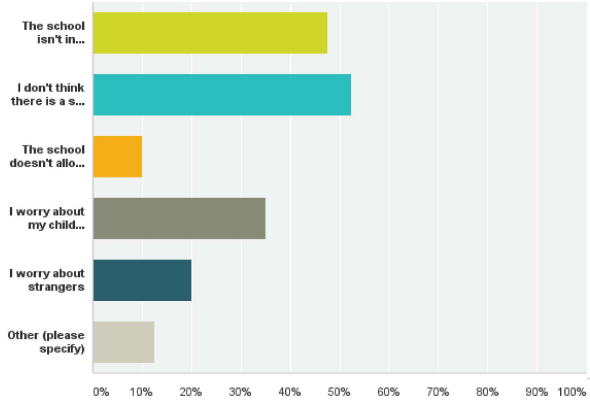
Q29: Do you have children who walk to school in Mount Olive?

Answered: 49 Skipped: 94

Answer Choices	Responses	
Yes	18.37%	9
No	81.63%	40
Total		49

Q30: You said you had children but they don't walk to school. Can you tell us why? Please check all reasons that apply.

Answered: 40 Skipped: 103



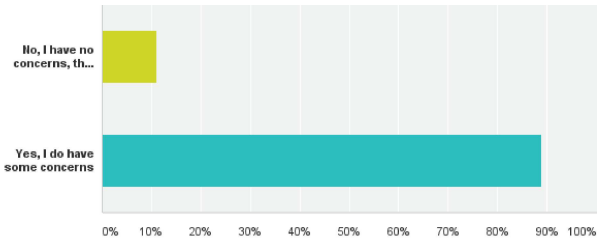
Q30: You said you had children but they don't walk to school. Can you tell us why? Please check all reasons that apply.

Answered: 40 Skipped: 103

Answer Choices	Responses	
The school isn't in walking distance	47.50%	19
I don't think there is a safe route for them to walk	52.50%	21
The school doesn't allow it	10.00%	4
I worry about my child crossing the street	35.00%	14
I worry about strangers	20.00%	8
Other (please specify)	12.50%	5
Total Respondents: 40		

Q31: You said you have children who walk to school in Mount Olive. Do you have any concerns about their walking route?

Answered: 9 Skipped: 134



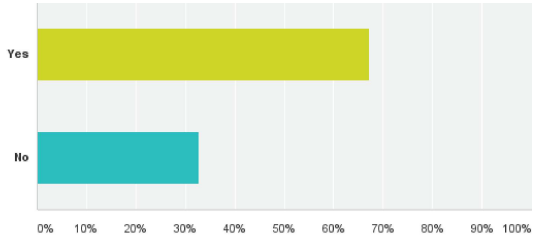
Q31: You said you have children who walk to school in Mount Olive. Do you have any concerns about their walking route?

Answered: 9 Skipped: 134

Answer Choices	Responses	
No, I have no concerns, they have a safe and comfortable route.	11.11%	1
Yes, I do have some concerns	88.89%	8
Total		9

Q34: Do you have school age children?

Answered: 73 Skipped: 70



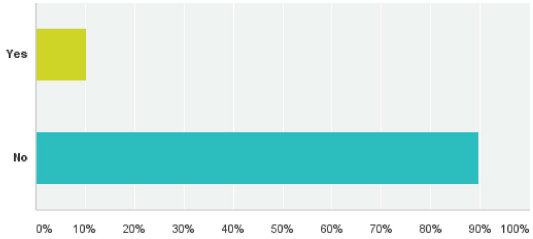
Q34: Do you have school age children?

Answered: 73 Skipped: 70

Answer Choices	Responses	
Yes	67.12%	49
No	32.88%	24
Total		73

Q35: Do you have children who bike to school in Mount Olive?

Answered: 49 Skipped: 94



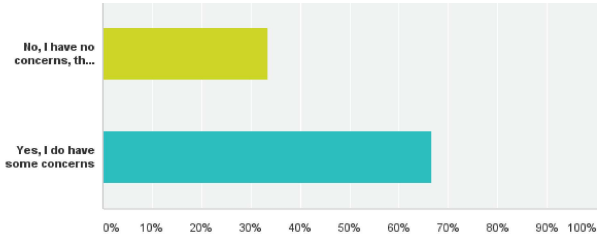
Q35: Do you have children who bike to school in Mount Olive?

Answered: 49 Skipped: 94

Answer Choices	Responses	
Yes	10.20%	5
No	89.80%	44
Total		49

Q36: You said you have children who bike to school in Mount Olive. Do you have any concerns about their cycling route?

Answered: 6 Skipped: 137



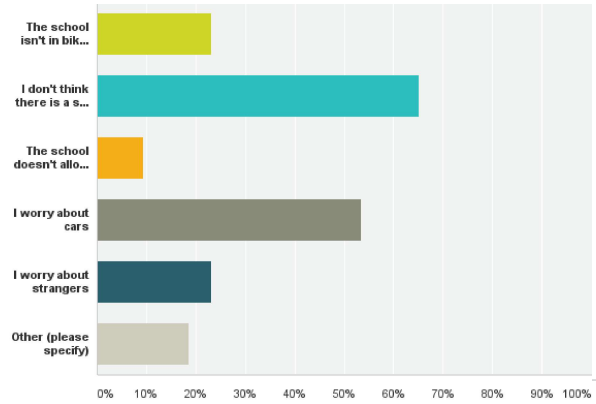
Q36: You said you have children who bike to school in Mount Olive. Do you have any concerns about their cycling route?

Answered: 6 Skipped: 137

Answer Choices	Responses	
No, I have no concerns, they have a safe and comfortable route.	33.33%	2
Yes, I do have some concerns	66.67%	4
Total		6

Q37: You said you had children but they don't bike to school. Can you tell us why? Please check all reasons that apply.

Answered: 43 Skipped: 100



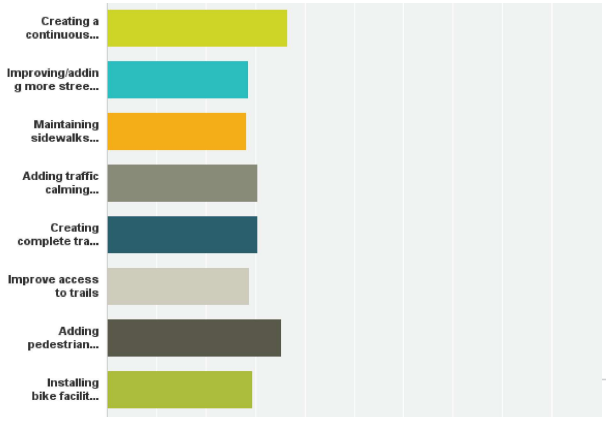
Q37: You said you had children but they don't bike to school. Can you tell us why? Please check all reasons that apply.

Answered: 43 Skipped: 100

Answer Choices	Responses	
The school isn't in biking distance	23.26%	10
I don't think there is a safe route for them to bike	65.12%	28
The school doesn't allow it	9.30%	4
I worry about cars	53.49%	23
I worry about strangers	23.26%	10
Other (please specify)	18.60%	8
Total Respondents: 43		

from schools? Select the top five issues in order of importance, 1 being the most important.

Answered: 70 Skipped: 73



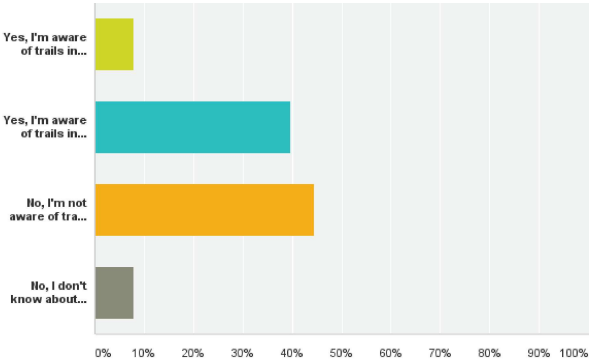
Enhance the safety of student bicycle and pedestrian travel to and from schools? Select the top five issues in order of importance, 1 being the most important.

Answered: 70 Skipped: 73

	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	Total	Weighted Average
Creating a continuous sidewalk network within the Township	**50.00%** 28	**14.29%** 8	**3.57%** 2	**16.07%** 9	**16.07%** 9	56	3.66
Improving/adding more street lights	**17.24%** 5	**24.14%** 7	**10.34%** 3	**24.14%** 7	**24.14%** 7	29	2.86
Maintaining sidewalks (cracks, dirt, debris, etc.)	**15.79%** 6	**21.05%** 8	**15.79%** 6	**23.68%** 9	**23.68%** 9	38	2.82
Adding traffic calming measures to slow vehicular speeds	**24.32%** 9	**18.92%** 7	**18.92%** 7	**13.51%** 5	**24.32%** 9	37	3.05
Creating complete trail networks	**12.82%** 5	**30.77%** 12	**20.51%** 8	**20.51%** 8	**15.38%** 6	39	3.05
Improve access to trails	**10.71%** 3	**21.43%** 6	**32.14%** 9	**17.86%** 5	**17.86%** 5	28	2.89

Q41: Are you aware of the trails located in Mount Olive?

Answered: 101 Skipped: 42



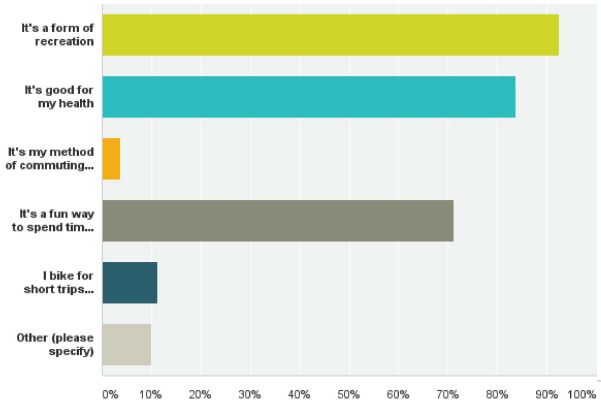
Q41: Are you aware of the trails located in Mount Olive?

Answered: 101 Skipped: 42

Answer Choices	Responses
Yes, I'm aware of trails in the community, but am not really interested in talking about trails. Please take me to the next section of the survey.	**7.92%** 8
Yes, I'm aware of trails in the community and am willing to answer a few questions about trails in Mount Olive	**39.60%** 40
No, I'm not aware of trails in Mount Olive, but I'd like to learn more, and don't mind trying to answer questions about trails	**44.55%** 45
No, I don't know about trails in Mount Olive and I'm really not interested. Please take me to the next section of the survey	**7.92%** 8
Total	**101**

Q43: What are your primary reasons for using trails in Mount Olive? (please check all that apply)

Answered: 80 Skipped: 63



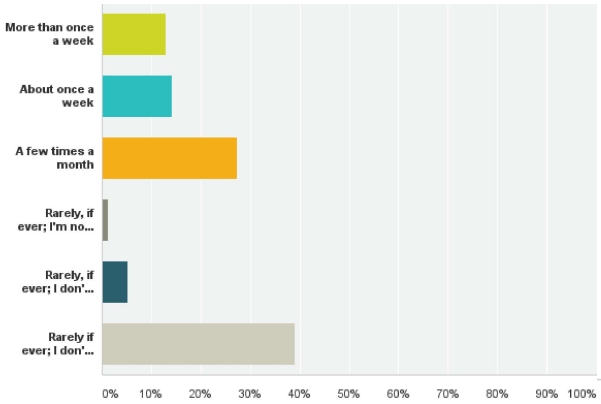
Q43: What are your primary reasons for using trails in Mount Olive? (please check all that apply)

Answered: 80 Skipped: 63

Answer Choices	Responses	
It's a form of recreation	92.50%	74
It's good for my health	83.75%	67
It's my method of commuting (to work or transit)	3.75%	3
It's a fun way to spend time with family and friends	71.25%	57
I bike for short trips (store, errands)	11.25%	9
Other (please specify)	10.00%	8
Total Respondents: 80		

Q45: How frequently do you bike or walk on trails in Mount Olive?

Answered: 77 Skipped: 66



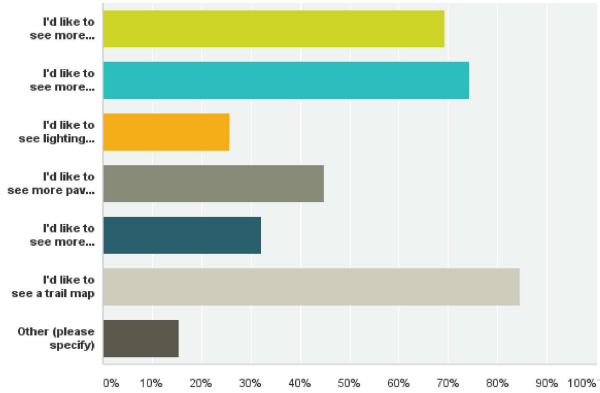
Q45: How frequently do you bike or walk on trails in Mount Olive?

Answered: 77 Skipped: 66

Answer Choices	Responses	
More than once a week	12.99%	10
About once a week	14.29%	11
A few times a month	27.27%	21
Rarely, if ever; I'm not interested	1.30%	1
Rarely, if ever; I don't think it's safe	5.19%	4
Rarely if ever; I don't really know about trails in Mount Olive	38.96%	30
Total		**77**

don't think it's safe. What type of improvements would you like to see to trails in Mount Olive? (Please check all that apply)

Answered: 78 Skipped: 65



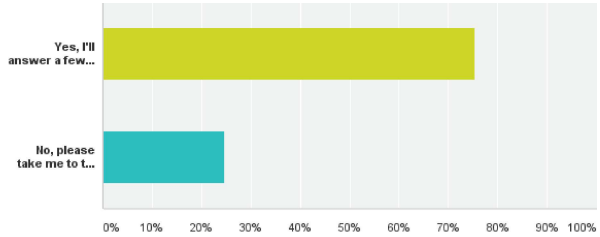
don't think it's safe. What type of improvements would you like to see to trails in Mount Olive? (Please check all that apply)

Answered: 78 Skipped: 65

Answer Choices	Responses	
I'd like to see more education about trails in Mount Olive	69.23%	54
I'd like to see more clearly marked trails and trail heads	74.36%	58
I'd like to see lighting on trails	25.64%	20
I'd like to see more paved trails	44.87%	35
I'd like to see more natural surface trails	32.05%	25
I'd like to see a trail map	84.62%	66
Other (please specify)	15.38%	12
Total Respondents: 78		

transportation access to the stores/businesses located in the vicinity of Route 206 and Flanders Bartley Road (CR613)?

Answered: 81 Skipped: 62



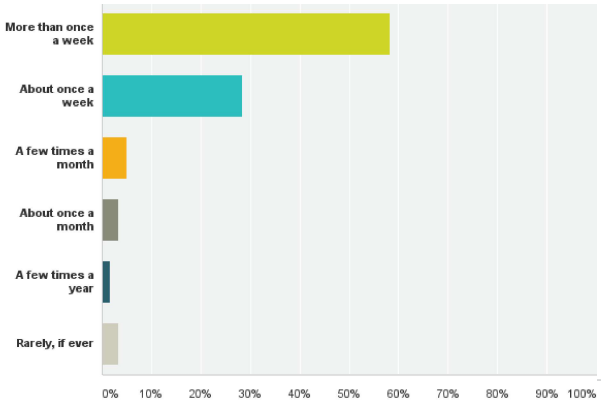
transportation access to the stores/businesses located in the vicinity of Route 206 and Flanders Bartley Road (CR613)?

Answered: 81 Skipped: 62

Answer Choices	Responses	
Yes, I'll answer a few questions	75.31%	61
No, please take me to the next section	24.69%	20
Total		**81**

Q48: How often do you visit the stores/businesses located in the vicinity of Route 206 and Flanders Bartley Road (CR613)

Answered: 60 Skipped: 83



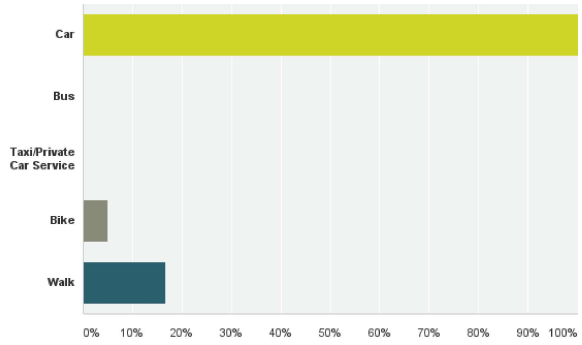
Q48: How often do you visit the stores/businesses located in the vicinity of Route 206 and Flanders Bartley Road (CR613)

Answered: 60 Skipped: 83

Answer Choices	Responses	
More than once a week	58.33%	35
About once a week	28.33%	17
A few times a month	5.00%	3
About once a month	3.33%	2
A few times a year	1.67%	1
Rarely, if ever	3.33%	2
Total		60

modes of transportation have you used to get there? Please check all that apply.

Answered: 60 Skipped: 83



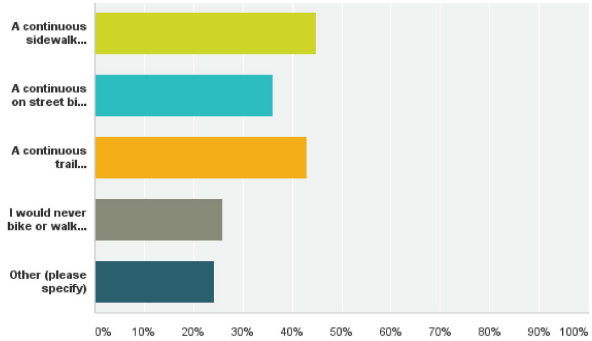
modes of transportation have you used to get there? Please check all that apply.

Answered: 60 Skipped: 83

Answer Choices	Responses	
Car	100.00%	60
Bus	0.00%	0
Taxi/Private Car Service	0.00%	0
Bike	5.00%	3
Walk	16.67%	10
Total Respondents: 60		

Flanders Bartley Road (CR 613) if the following improvements were made? Please check all that apply.

Answered: 58 Skipped: 85



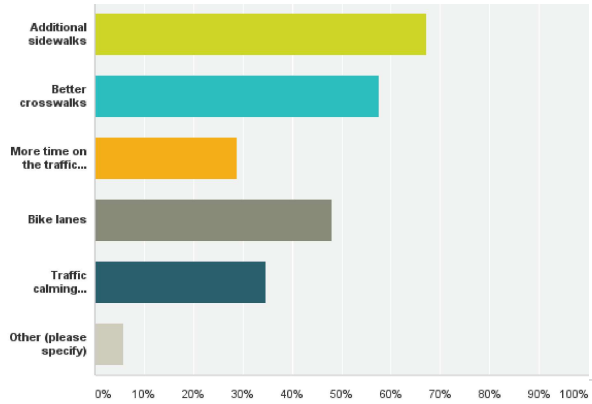
Flanders Bartley Road (CR 613) if the following improvements were made? Please check all that apply.

Answered: 58 Skipped: 85

Answer Choices	Responses	
A continuous sidewalk leading to the stores/businesses	44.83%	26
A continuous on street bike facility, such as a bike lane, leading to the stores/businesses	36.21%	21
A continuous trail separated/buffered from the roadway leading to the stores/businesses	43.10%	25
I would never bike or walk to this area under any circumstance	25.86%	15
Other (please specify)	24.14%	14
Total Respondents: 58		

safe and enjoyable access to/from this area? Please check all that apply.

Answered: 52 Skipped: 91



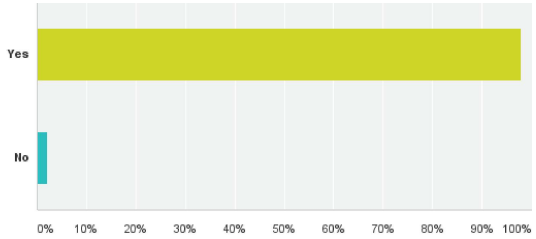
safe and enjoyable access to/from this area? Please check all that apply.

Answered: 52 Skipped: 91

Answer Choices	Responses	
Additional sidewalks	67.31%	35
Better crosswalks	57.69%	30
More time on the traffic signal to cross the road as a pedestrian	28.85%	15
Bike lanes	48.08%	25
Traffic calming measures to slow traffic	34.62%	18
Other (please specify)	5.77%	3
Total Respondents: 52		

Q52: Have you visited Turkey Brook Park?

Answered: 97 Skipped: 46



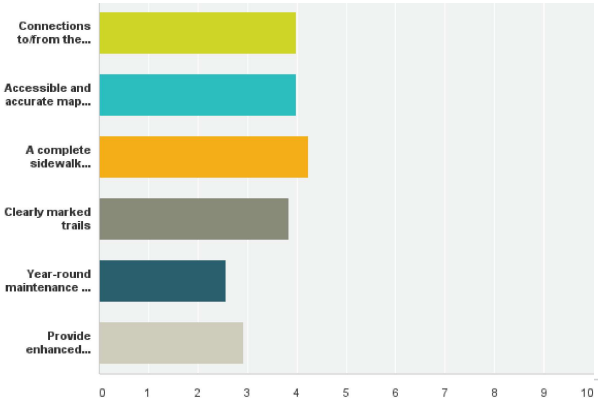
Q52: Have you visited Turkey Brook Park?

Answered: 97 Skipped: 46

Answer Choices	Responses	
Yes	97.94%	95
No	2.06%	2
Total		97

Q53: You said you've visited Turkey Brook Park. Please rank the following park needs in their order of importance to you.

Answered: 91 Skipped: 52



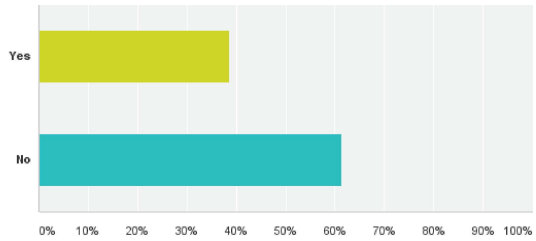
Q53: You said you've visited Turkey Brook Park. Please rank the following park needs in their order of importance to you.

Answered: 91 Skipped: 52

	1	2	3	4	5	6	Total	Score
Connections to/from the High School, Tinc Road Elementary School, and Chester M. Stephens School	33.33% 26	11.54% 9	19.23% 15	10.26% 8	7.69% 6	17.95% 14	78	3.99
Accessible and accurate maps for trail networks	27.27% 21	14.29% 11	16.88% 13	22.08% 17	10.39% 8	9.09% 7	77	3.99
A complete sidewalk network on roadways connecting to the park	20.29% 14	37.68% 26	13.04% 9	11.59% 8	8.70% 6	8.70% 6	69	4.23
Clearly marked trails	10.26% 8	26.92% 21	25.64% 20	15.38% 12	17.95% 14	3.85% 3	78	3.85
Year-round maintenance of trails connecting the park	1.47% 1	8.82% 6	16.18% 11	20.59% 14	25.00% 17	27.94% 19	68	2.57
Provide enhanced crosswalk safety measures for	16.00% 12	6.67% 5	13.33% 10	13.33% 10	20.00% 15	30.67% 23	75	2.93

Q54: Do you walk and/or bike in the vicinity of Budd Lake?

Answered: 93 Skipped: 50



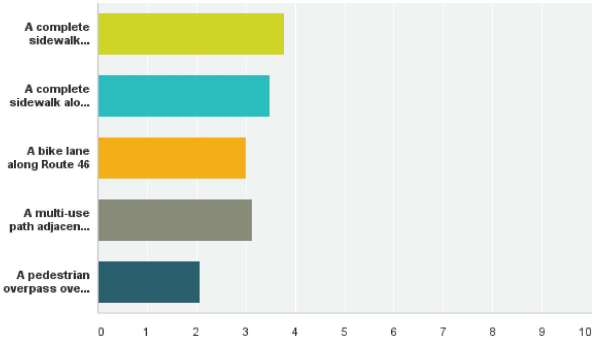
Q54: Do you walk and/or bike in the vicinity of Budd Lake?

Answered: 93 Skipped: 50

Answer Choices	Responses	
Yes	38.71%	36
No	61.29%	57
Total		93

Q55: You said you bike or walk in the vicinity of Budd Lake. Can you please think about the following list of potential improvements and rank them in their order of importance to you?

Answered: 36 Skipped: 107



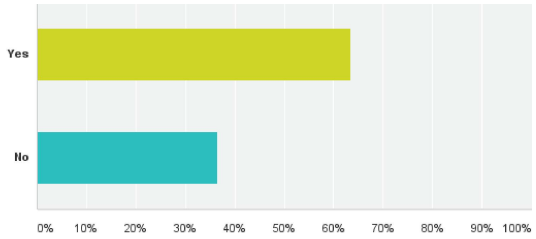
Q55: You said you bike or walk in the vicinity of Budd Lake. Can you please think about the following list of potential improvements and rank them in their order of importance to you?

Answered: 36 Skipped: 107

	1	2	3	4	5	Total	Score
A complete sidewalk network along roadways surrounding the lake	40.00% 12	23.33% 7	13.33% 4	20.00% 6	3.33% 1	30	3.77
A complete sidewalk along Route 46	20.69% 6	37.93% 11	17.24% 5	17.24% 5	6.90% 2	29	3.48
A bike lane along Route 46	26.67% 8	6.67% 2	20.00% 6	33.33% 10	13.33% 4	30	3.00
A multi-use path adjacent to Route 46	12.50% 4	31.25% 10	28.13% 9	12.50% 4	15.63% 5	32	3.13
A pedestrian overpass over Route 46	6.06% 2	9.09% 3	21.21% 7	12.12% 4	51.52% 17	33	2.06

Q56: Do you work within or visit the International Trade Center (ITC) area?

Answered: 93 Skipped: 50



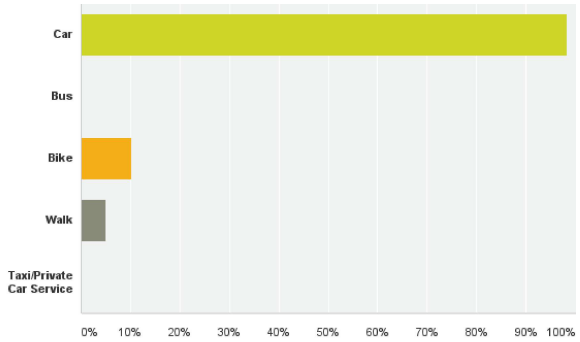
Q56: Do you work within or visit the International Trade Center (ITC) area?

Answered: 93 Skipped: 50

Answer Choices	Responses	
Yes	63.44%	59
No	36.56%	34
Total		93

Q57: You said you work within or visit the International Trade Center Area (ITC). What mode(s) of transportation do you use to get there? Please check all that apply.

Answered: 59 Skipped: 84



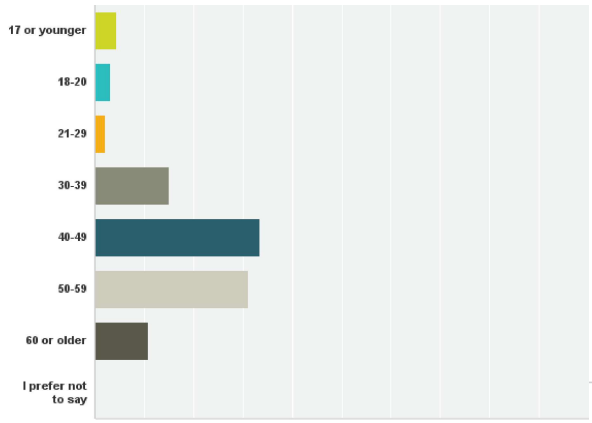
Q57: You said you work within or visit the International Trade Center Area (ITC). What mode(s) of transportation do you use to get there? Please check all that apply.

Answered: 59 Skipped: 84

Answer Choices	Responses	
Car	98.31%	58
Bus	0.00%	0
Bike	10.17%	6
Walk	5.08%	3
Taxi/Private Car Service	0.00%	0
Total Respondents: 59		

Q59: What is your age?

Answered: 93 Skipped: 50



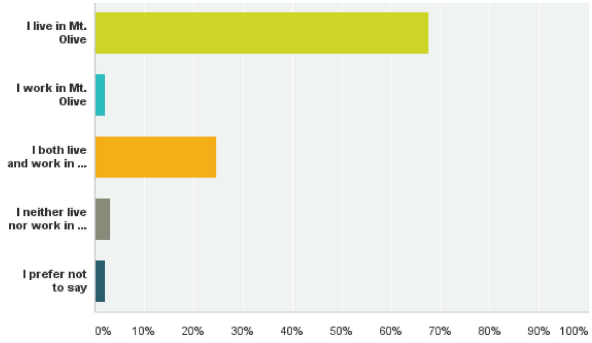
Q59: What is your age?

Answered: 93 Skipped: 50

Answer Choices	Responses	
17 or younger	4.30%	4
18-20	3.23%	3
21-29	2.15%	2
30-39	15.05%	14
40-49	33.33%	31
50-59	31.18%	29
60 or older	10.75%	10
I prefer not to say	0.00%	0
Total		93

Q60: Do you live or work in Mount Olive?

Answered: 93 Skipped: 50



Q60: Do you live or work in Mount Olive?

Answered: 93 Skipped: 50

Answer Choices	Responses	
I live in Mt. Olive	67.74%	63
I work in Mt. Olive	2.15%	2
I both live and work in Mt. Olive	24.73%	23
I neither live nor work in Mt. Olive	3.23%	3
I prefer not to say	2.15%	2
Total		93

Appendix H: Data Summary Memorandum

Mount Olive Bicycle & Pedestrian Plan
Data Summary Memorandum

To: Claudia Tomasello, Mount Olive Township Business Administration Office
William Riviere, NJDOT Office of Bicycle and Pedestrian Programs

From: Denice daCunha, Charlie Cunion, NV5

Date: June 1, 2017

Re: Mount Olive Township Bicycle and Pedestrian Plan,
Data Summary Memorandum
RBA Project 728616-0000095.02

ATTACHMENTS:

-Visioning Outreach Summary / Mount Olive Open Space Committee Response to Public Comments
-Survey Summary
-Field Review Notes and Photo Log
-Data Inventory

INTRODUCTION

This summary identifies data and information collected for the Mount Olive Township Bicycle and Pedestrian Plan. Information for this working paper is based on input from the Steering Committee, field reviews, public outreach, project survey, and GIS analysis. It includes a summary of community characteristics and significant demographic factors that impact bicycling and walking rates, an analysis of crashes involving bicyclists and pedestrians, and an overview of opportunities and constraints in the area.

SETTING AND CONTEXT

The Township of Mount Olive, located in Morris County, New Jersey, consists of several neighborhoods. and spans a total area of 31 square miles with a population of 28,000 residents and 140 miles of roadway. The major roads that pass through the township include U.S. Route 46, U.S. Route 206, and Interstate Highway 80. It has a combination of both rural and suburban characteristics and is primarily located with the NJ Highlands Preservation area, with the remainder within the NJ Highlands Planning area. Its business community is centrally located and surrounded by residential neighborhoods.

7 Campus Drive, Suite 300 | Parsippany, NJ 07054 | www.nv5.com | office 973.946.5600 | fax 973.984.5421
Construction Quality Assurance - Infrastructure - Energy - Program Management - Environmental

Characteristics and geographic information about the township can be seen in ***Map 1: Study Area Map*** and ***Map 2: Highlands-Composite Zoning Map.***

Destinations

Current travel patterns provide the context for evaluating the type of improvements that may be most effective in making Mount Olive more pedestrian and bicycle friendly. Activity generators include:

- Budd Lake
- Senior Center
- Turkey Brook Park
- Route 206 Shopping Center
- Mount Olive Train Station
- Mount Olive Schools
- Post Office
- Library
- Powerline Park
- Flanders Park
- Drakes Brook Park
- Columbia Trail

POPULATION DATA

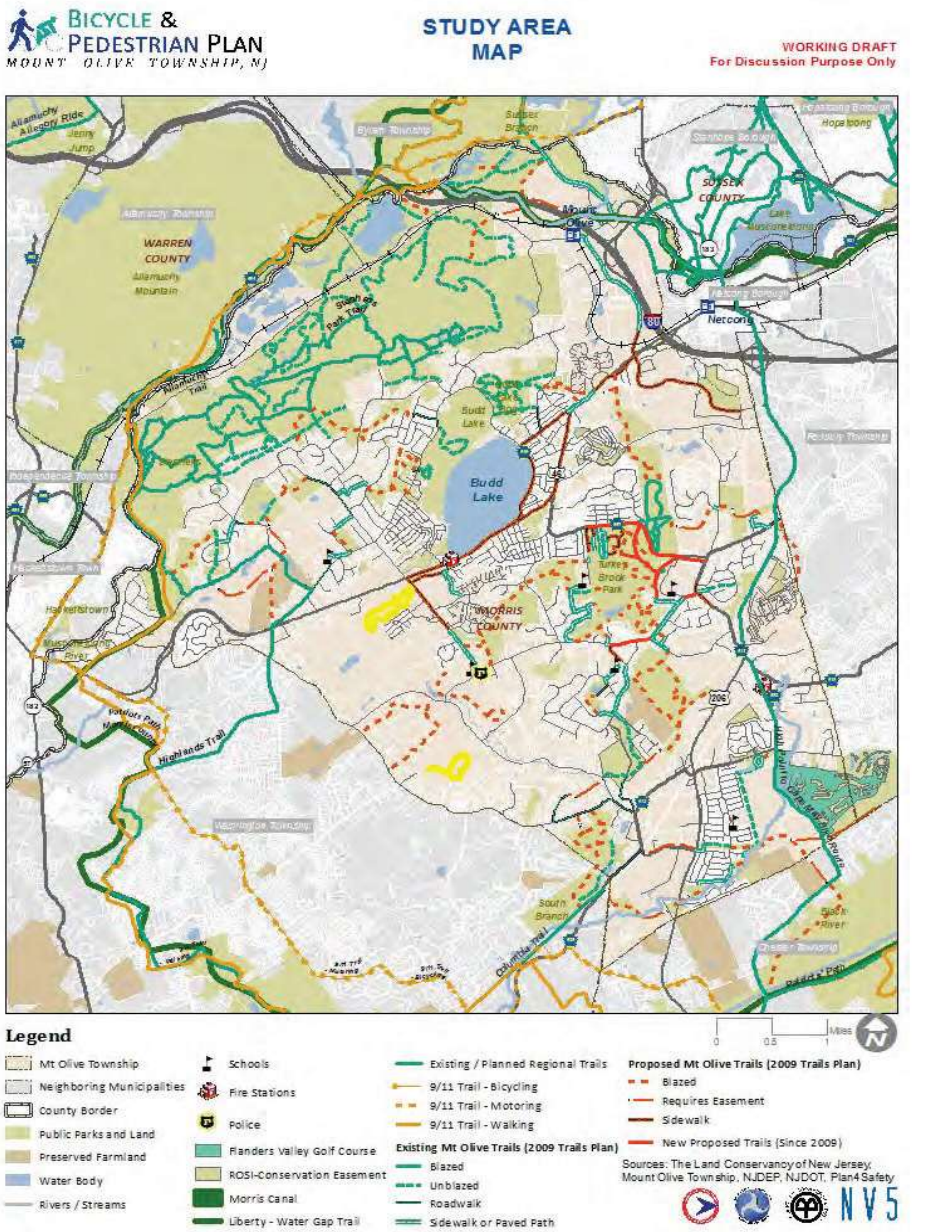
The population of the township was estimated to be 28,682 by the U.S. Census Bureau's 2015 American Community Survey (ACS). Of Mount Olive's working population, the following three industries lead the township's labor force with roughly 20 percent are educational services, health care, and social assistance; 17 percent in retail trade; and 15 percent in manufacturing. According to 2015 ACS 5-Year data, about half of Mount Olive's residents are between 25 and 59 years old, with a median age of 39. Nearly 30 percent of the township's population consists of school-age children.

Commuting Characteristics

The U.S. Census collects information about the primary mode that residents use when commuting to work. While this provides important data about commute trips, it only tells us about those residents who are employed. This does not capture the many walking and bicycling trips that residents take to school, shopping or for recreation.

As ***Table 1*** indicates, the common form of commuting to work is driving alone, at a rate slightly higher than the state, county, or national figures. Data shows that Mount Olive residents do not commute via bicycle and a small share report walking to work.

Map 1: Study Area Map

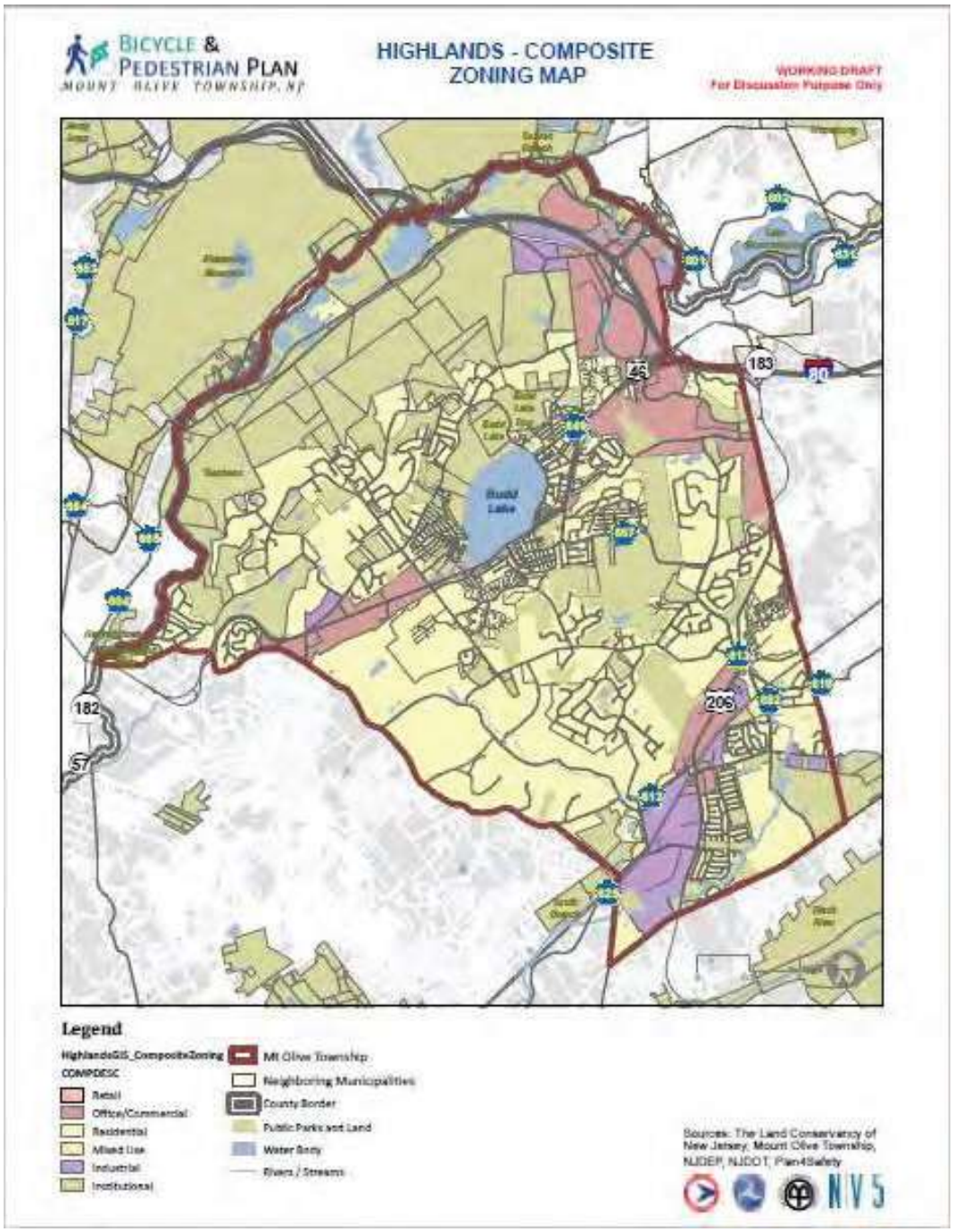


NV5

OFFICES NATIONWIDE

CONSTRUCTION QUALITY ASSURANCE - INFRASTRUCTURE - ENERGY - PROGRAM MANAGEMENT - ENVIRONMENTAL

Map 2: Highlands-Composite Zoning Map



Mount Olive has a small percentage of workers who commute by transit. The Mount Olive Train Station, located near the junction of Waterloo Valley Road and International Drive in Budd Lake, has a small parking lot. NJ TRANSIT's Montclair-Boonton Line runs through Mount Olive and provides service to Newark Broad Street, Hoboken, and New York Penn Station in Midtown Manhattan. The Morristown Line also services Mount Olive train station, providing linkages to Newark Broad Street, Secaucus Junction, New York Penn Station in Midtown Manhattan, and Hoboken.

Table 1: Work Commute Trip Mode Share

Location	Bike	Walk	Drove Alone	Carpooled	Transit	Work from home
Mount Olive	0.0%	0.7%	86.0%	6.4%	1.6%	4.5%
Morris County	0.2%	2.1%	78.7%	7.7%	5.0%	5.5%
New Jersey	0.3%	3.1%	71.9%	8.1%	11.1%	4.0%
United States	0.6%	2.8%	76.4%	9.5%	5.1%	4.4%

Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates

CRASH DATA

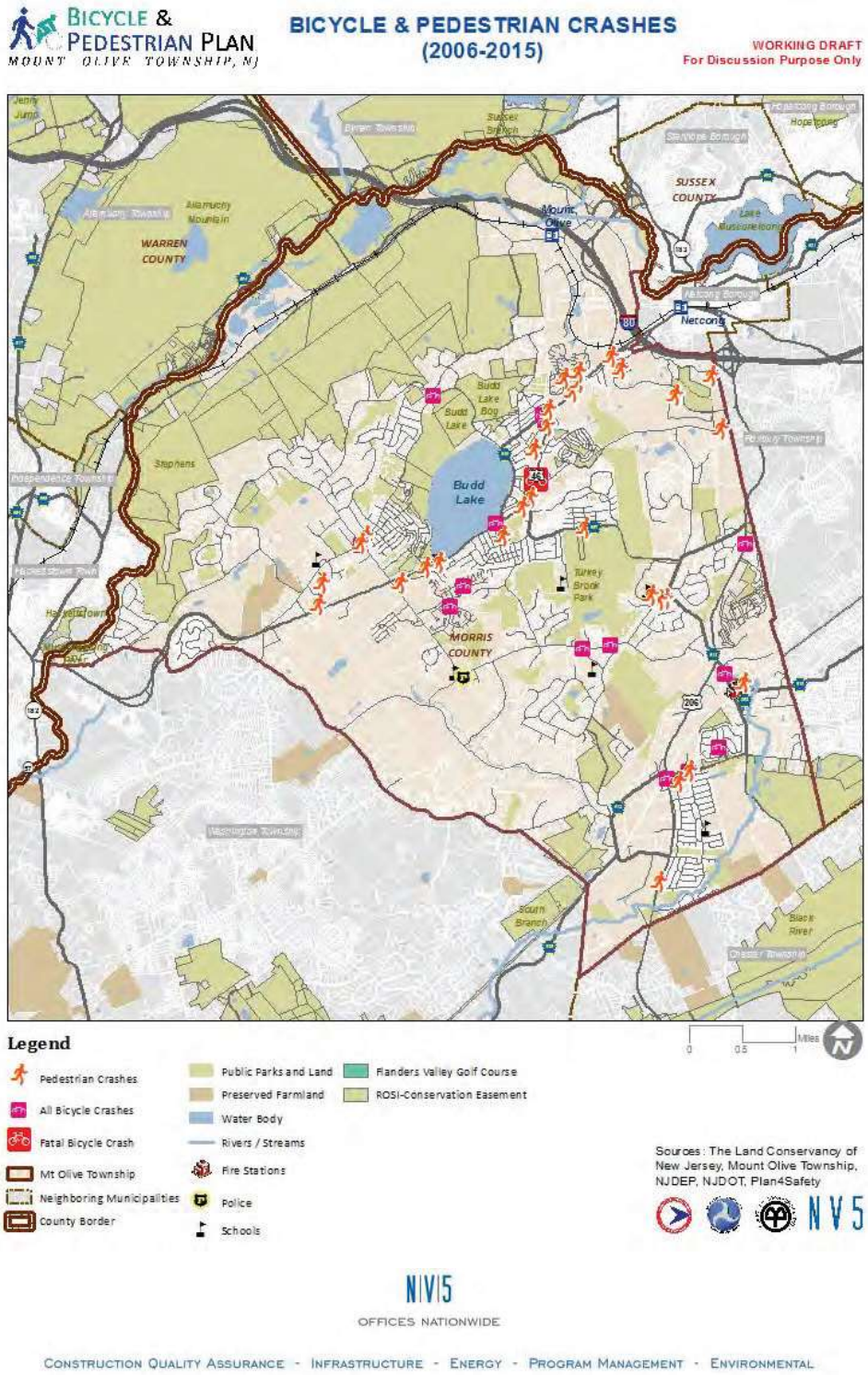
Crash data from Plan4Safety[1] was used to assess the frequency and location of crashes involving bicyclists and pedestrians from 2009-2015 (inclusive) within Mount Olive Township. During this period, 23 crashes occurred of which 6 (26%) involved bicyclists and 17 (74%) involved pedestrians. Neither the bicycle crashes nor pedestrian crashes resulted in fatality. All bicyclist crashes occurred at intersections. The following is a summary of the key findings. See ***Map 3: Bicycle and Pedestrian Crash Locations (2006-2015)*** on the following page. It is important to note that only accidents involving motor vehicles are included in the Plan4Safety database. So some accidents, like bicycle crashes from falls or collisions between bicyclists are not included.

Location & calendar of bicycle and pedestrian crashes

- Locations with multiple crashes include:
  - 4 pedestrian crashes occurred on Route 46
  - 2 pedestrian crashes occurred on International Drive South
- August had the highest number of bicycle crashes (50%)
- November has the highest number of pedestrian crashes (35%)

[1] Plan4Safety is a web-based platform for querying, analyzing, and displaying results from NJDOT's crash database. It is hosted by the Center for Advanced Infrastructure and Transportation (CAIT) at Rutgers University.

Map 3: Bicycle and Pedestrian Crash Locations (2006-2015)



NV5

OFFICES NATIONWIDE

CONSTRUCTION QUALITY ASSURANCE - INFRASTRUCTURE - ENERGY - PROGRAM MANAGEMENT - ENVIRONMENTAL

PUBLIC OUTREACH

Public Visioning

A Public Visioning workshop was held at Mount Olive High School in conjunction with the Mid-Atlantic Robotics Event. The workshop informed the public about the study and sought input. A booth was set up at the event to garner input and feedback from Mount Olive residents and those who utilize Mount Olive trails to help shape the Bicycle and Pedestrian Master Plan. The meeting included a mapping exercise to identify problem areas, issues and opportunities related to pedestrian and bicycle travel in the Township. During the event, the following items were addressed to be considered as key issues in the Bicycle and Pedestrian plan:

- Lack of trail signage and markers
- Lack of trail connectivity from residential communities
- Safety concerns
- Lack of bicycle and pedestrian facilities

Further feedback from the event, including map markups and commentary, is available in the *Attachments* section of this document.

In May 2017, a representative from Mount Olive's Open Space Committee, Kathy Murphy, provided responses to the public comments. This input is also attached.

After conducting an online survey and an online WikiMapping exercise, the following feedback was given among other comments referenced in the *Attachments* section of this document:

Survey

- Survey respondents cited the following streets as the least safe/comfortable for walking:
  - Route 46
  - Route 206
  - Sand Shore Road
  - Flanders-Bartley Road
  - Mt Olive
- The most frequently cited intersections that survey respondents felt were difficult to cross as a pedestrian were Route 46 and Route 206.
- Respondents indicated that the top 3 biggest challenges for pedestrians in Mount Olive were, a lack of a connected sidewalk network (75%); followed by fear of vehicle collisions and traffic (72%); followed by a lack of connections to parks trails, and community destinations (68%).
- Respondents noted that the biggest barrier to bicycling is "Fear of vehicle collisions and traffic" (90%), followed by "Lack of bicycle lanes and infrastructure" (82%).
- When asked how frequently do you bicycle on the streets on Mount Olive, roughly 45% of respondents answered that they "Rarely, if ever; I don't think it's safe."

- 50% of respondents will not allow their children to walk to school and 65% of respondents will not allow their children to bike to school, citing the same reason: "I don't think there is a safe route for them to walk."
- 45% of respondents would be more likely to bicycle or walk to the stores/businesses located in the vicinity of Route 206 and Flanders Bartley Road (CR613) if there was a continuous sidewalk leading to the vicinity. 43% mentioned an increased likelihood if there was a continuous trail separated/buffered from the roadway leading to the vicinity.
- When asked to rank the following needs of Turkey Brook Park in their order of importance, respondents most frequently ranked "Connections to/from the High School, Tinc Road Elementary School, and Chester M. Stephens School" as number 1, followed second by "Accessible and accurate maps for trail networks."
- "A complete sidewalk network along roadways surrounding the lake" was most frequently selected as being most important potential improvement for biking and walking in Mount Olive. "A pedestrian overpass over Route 46" was most often ranked as least important (amongst given answer choices).

WikiMap

No.	Category	Location Noted	Initial Comment	Like	Dislike	Create Date
1	Barriers / Area of Concern	Wolfe Rd & Route 46				3-Mar-17
2	Barriers / Area of Concern	Manor House Rd & Route 46				3-Mar-17
3	Barriers / Area of Concern	Route 206, Route 206 Shopping Center				3-Mar-17
4	Barriers / Area of Concern		Road is unsafe for walking. Would like to walk to St Elizabeth's church but cannot get there safely.			3-Mar-17
5	Barriers / Area of Concern		206 barrier to HS			3-Mar-17
6	Barriers /	Sand Shore		*1*		3-Mar-17

	Area of Concern	Rd, Naughright Rd, Route 46				
7	Barriers / Area of Concern	Route 612, Bartley-Flanders Road, Route 206				3-Mar-17
8	Barriers / Area of Concern	Route 206, Route 206 Shopping Center		1		3-Mar-17
9	Bicycling Destination	Route 46, near 7-Eleven		1		3-Mar-17
10	Bicycling Destination	Aldersgate Circle				3-Mar-17
11	Bicycling Destination	Link Road				3-Mar-17
12	Route I Bike On		High Point to Cape May Bike Route			7-Mar-17
13	Route I Bike On		High Point to Cape May Bike Route			7-Mar-17
14	Route I Bike On		High Point to Cape May Bike Route			7-Mar-17
15	Route I Bike On		High Point to Cape May Bike Route			7-Mar-17
16	Route I Bike On	Mountain Avenue				3-Mar-17
17	Route I Walk On		Clover Hill Loop			3-Mar-17
18	Route I Walk On		Clover Hill to Flanders Park			3-Mar-17
19	Route I Walk On	Ledgewood Road, Fairmount Road, Falcon Road				3-Mar-17
20	Route I Walk On	Manor House Road, Pine Grove Road,				3-Mar-17

		Taboggan Hill Road, Clearwater Road				
21	Route I Walk On	Clearwater Road				3-Mar-17
22	Route I WANT To Bike On					3-Mar-17
23	Route I WANT To Walk On		I would like to be able to walk to St. Elizabeth's Church. The road is too windy, has blind curves, is without sidewalks, and is not marked for pedestrian or bike traffic.			3-Mar-17
24	Route I WANT To Walk On	Smithtown Road, Sand Shore Road, through Bog, cont. Sand Shore Road, Route 46, Budd Lake Beach				3-Mar-17
25	Route I WANT To Walk On		From Clover Hill development to Rita's			3-Mar-17
26	Route I WANT To Walk On		Clover Hill development to Weis. This small part of the route is awkward, without markings, and feels unsafe with small children.			3-Mar-17
27	Route I WANT To		Clover Hill development to			3-Mar-17

	Walk On		Columbia Trail head			
28	Route I WANT To Walk On	Clearwater Road, Sand Shore Road				3-Mar-17
29	Route I WANT To Walk On		Sidewalks/seasonal trail from TBP to High School			11-Mar-17
30	Route I WANT To Walk On		Turkey Brook Park to Drakes Brook Park			11-Mar-17
31	Route I WANT To Walk On		Netcong Train Station/Rte.46 Netcong through Stanhope to Braille Trail/ Morris Canal, then north to Sussex Branch Trail.			11-Mar-17
32	Route I WANT To Walk On		Morris Canal/Braille Trail west along Morris canal path to Waterloo Village			11-Mar-17
33	Route I WANT To Walk On		TBP and school through open space, neighborhood, cross Mt. Olive rd. through woods and open space to Municipal Bdg.			11-Mar-17
34	Route I WANT To Walk On		From state land to Camelot Park, Alcrest Drive, Camelot Dr., connect back to state land			11-Mar-17
35	Route I WANT To Walk On		Drakes Brook to existing TB trails, also north to mall area.			11-Mar-17
36	Route I WANT To		trail across public land from apt			16-Mar-17

	Walk On		complex to townhall/library			
37	Route I WANT To Walk On		nice walk across Silver Spring Manor parcel, to ridge overlooking Rt 206 & Flanders Valley, maybe down hill to Rt 206 as well from there to parking area opposite the pool shop			16-Mar-17
38	Route I WANT To Walk On		hiking trail across open space parcel and by the pond on that property			16-Mar-17
39	Route I WANT To Walk On		trail connecting Chester M Stephens to Kings Village apts through Sun Valley parcel			16-Mar-17
40	Route I WANT To Walk On		it would be amazing to be able to safely walk on River Road, though I cannot think of a way to make it possible to do so			16-Mar-17
41	Route I WANT To Walk On		clearly marked trail to Veterans Park in Roxbury from Oakwood Village			16-Mar-17
42	Route I WANT To Walk On		I hope the town can help acquire open space along the river.			16-Mar-17
43	Route I WANT To Walk On		It would be great if the town would acquire the old mill at the intersection of Flanders-Drakestown Road			17-Mar-17

			and Rt 206, and then piece together parcel that go along the west side of Rt 206 for a hiking trail. beautiful terrain, with historic value			
44	Walking Destination	Naughright Road, Sand Shore Road, Route 46				3-Mar-17
45	Walking Destination		Columbia Trail			3-Mar-17
46	Walking Destination		Turkey Brook			3-Mar-17
47	Walking Destination		Market			3-Mar-17
48	Walking Destination	Budd Lake Beach				3-Mar-17
49	Walking Destination	Mount Olive High School				3-Mar-17

Opportunities and Constraints

Opportunities

Bicycling and walking are desired activities in Mount Olive. Mount Olive's already existing vast collection of trails makes it an area with potential to have thriving bicycle and pedestrian activity. The opportunities listed below are evidence that these characteristics offer a good foundation to build upon:

- Mount Olive Trails Plan (2009)
- Turkey Brook Park
- Columbia Trail

Constraints

Another component to improving conditions is identifying constraints, or barriers, that limit bicycle and pedestrian travel. Physical barriers can be infrastructure or land use in nature. Infrastructure barriers include major roadways, like Routes 206 and 46. Resident's perceived bicycle and pedestrian barriers, such as speeding and lack of connectivity, also influence bicycle and pedestrian travel. Some of the challenges and constraints identified in Mount Olive include:

- Hilly topography throughout the township
- Speeding automobiles
- Wetlands and Highlands Preservation Areas

Appendix I: Complete Streets Resolution

RESOLUTION OF THE TOWNSHIP COUNCIL OF THE TOWNSHIP OF MOUNT OLIVE ESTABLISHING A "COMPLETE STREETS" POLICY

WHEREAS, the Township of Mount Olive is committed to creating a pedestrian and bikeway system that makes walking and cycling a viable alternative to driving, and which improves bicyclist and pedestrian safety, by creating street corridors that safety accommodate all road users of all abilities and disabilities; and

WHEREAS, the New Jersey Department of Transportation's Complete Streets policy states "A Complete Street is defined as means to provide safe access for all users by designing and operating a comprehensive, integrated, connected multi-modal network of transportation options"; and

WHEREAS, the New Jersey Department of Transportation supports Complete Streets policy and adopts its own policy on December 3, 2009; and

WHEREAS, Complete Streets are supported by the Institute of Traffic Engineers, the American Planning Association and other transportation, planning and health officials; and

WHEREAS, significant accomplishments have already been achieved in the Township by incorporating pedestrian safety and traffic calming measures when public streets are improved; and

WHEREAS, the Township is committed to continuing its commitment; and

WHEREAS, the Township Council supports this Complete Streets initiative and wishes to reinforce its commitment to creating a comprehensive, integrated, connected street network that safely accommodates all road users of all abilities and for all trips.

NOW, THEREFORE BE IT RESOLVED by the Township Council of the Township of Mount Olive that it does hereby establish that all public street projects, both new construction and reconstruction (excluding maintenance) undertaken by the Township of Mount Olive shall be designed and constructed as Complete Streets whenever feasible to do so, in order to safely accommodate travel by pedestrians, bicyclists, other forms of alternate transportation, public transit, and motorized vehicles and their passengers, with special priority given to pedestrian safety, and subject to the following conditions:

1. Pedestrian and bicycle facilities shall not be required where they are prohibited by law.

2. Public transit facilities shall not be required on streets not serving as transit routes. The desirability of transit facilities will be determined on a project specific basis.

3. In any project, should the cost of pedestrian, public transit, bicycle facilities and/or other alternate forms of transportation cause an increase in project costs in excess of 20% as determined by engineering estimates, that would need to be funded with local tax dollars,

then and in that event approval by Township Council must be obtained same prior to bidding of the project.

4. The detrimental environmental or social impacts shall not outweigh the need for these accommodations.

5. The safety or timing of a project shall not be compromised by the inclusion of Complete Streets.

TOWNSHIP OF MOUNT OLIVE

_____
Alex Roman, Council President

I hereby certify the above to be a true copy of a resolution passed by the Mount Olive Township Council at a duly convened meeting held on

_____
Lisa Lashway, Township Clerk

Appendix J: Complete Streets Checklists

COMPLETE STREETS CHECKLIST:

CONCEPT DEVELOPMENT AND DESIGN

For each question, please identify whether the Complete Streets consideration is currently addressed, not addressed, or not applicable and/or provide a description of how the item will be addressed for this proposed project. Attach any necessary documentation.

	Concept Development Checklist Consideration	YES	NO	N/A	Comments/ Explanation of How Item is being Addressed
Context	What is the existing roadway cross-section and speed limit?				
	What is the street type (refer to Mount Olive Complete Streets Typology)? What is the AADT?				
	Is the project in a school zone, truck route, historic district, etc.?	☐	☐	☐	
	Is it a high accident area?	☐	☐	☐	
	Are there particular needs (pedestrian, children, elderly, bicyclists, motorist, transit, truck, or freight movement) in the project area?	☐	☐	☐	
	Are there any planning documents that address bicyclist, pedestrian, transit user, or freight movement facilities within or proximate to the study area?	☐	☐	☐	
	Are there safe and accessible accommodations for bicyclists to travel on, along, and across the current facility?	☐	☐	☐	
	Are there safe/accessible accommodations for pedestrians (including ADA compliance) to travel on, along, and across the current facility?	☐	☐	☐	
	Is there transit service (bus, rail, etc.) within the study area?	☐	☐	☐	
	Are there safe and accessible accommodations for transit users on, along, or crossing the current facility?	☐	☐	☐	
Proposed Complete Streets Accommodations	What is the proposed roadway cross-section and speed limit?				
	Does the proposed design follow all applicable and current design standards or guidelines, and best practices for bicycle and pedestrian facilities and ADA compatibility?	☐	☐	☐	
	Is the proposed design compatible with land use and density within the project area, including any special zoning districts?	☐	☐	☐	
	Does the proposed design accommodate the travel needs of all street users to the major sites, destinations, and trip generators within or proximate to the project area?	☐	☐	☐	
	Does the proposed design support recommendations from other planning documents related to the project area?	☐	☐	☐	
	Does the proposed design include landscaping, street trees, planters, buffer strips, or other environmental enhancements?	☐	☐	☐	
	Will bicycle, pedestrian, and transit users be accommodated along the facility? If yes, which of the following facilities will be included?	☐	☐	☐	
	☐ Accessible sidewalk curb ramps	☐ Crosswalks	☐ Pedestrian countdown signals	☐ Signs	☐ Shared lane markings
	☐ Curb extensions	☐ Pedestrian scale lighting	☐ Bike Lanes	☐ Bike compatible shoulders	☐ Other

CONCEPT DEVELOPMENT AND DESIGN SIGN-OFF

Concept Development Checklist Statement of Compliance	YES	NO
The selected design concept accommodates all users and is consistent with Complete Streets principles.		
Note: There should be a "sign off" by whomever filled out the concept development checklist or that person's supervisor. Signature:_____	☐	☐
If YES, forward to Complete Streets Implementation (CSI) Committee with any supporting documentation for concurrence. **If NO**, forward checklist to CSI Committee with documentation of any factors or circumstances exempting this project from Complete Streets policy compliance.		

CSI Committee Concurrence and Disposition:

Note: The CSI Committee must document its concurrence with the Statement of Compliance or, if an exemption is being sought, concur with the exemption before the project can advance to implementation. The CSI Committee may determine what additions or changes to the project must be incorporated before the project can advance to implementation.

Signature: _____ **Date:** _____

Print Name:_____

Signature: _____ **Date:** _____

Print Name:_____

Signature: _____ **Date:** _____

Print Name:_____

COMPLETE STREETS CHECKLIST:

MAINTENANCE AND OPERATIONS

To be completed prior to the commencement of the work.

	Maintenance and Operations Checklist Consideration	YES	NO	N/A	Description of How the Item will be Addressed *(Required)*
Pedestrian Accommodations	Are there existing pedestrian accommodations in the vicinity of the work?	☐	☐	☐	
	Will pedestrian features be adversely affected during the course of maintenance work?	☐	☐	☐	
	If yes (above), will accommodation be restored or improved as a result of maintenance activity?	☐	☐	☐	
	Will pedestrian access be maintained or otherwise provided for during the course of the maintenance work?	☐	☐	☐	
Bicycle Accommodations	Are there existing bicycle accommodations in the vicinity of the work?	☐	☐	☐	
	Will bicycle features be adversely affected during the course of maintenance work?	☐	☐	☐	
	If yes (above), will accommodation be restored or improved as a result of the maintenance activity?				
	Will bicycle access be maintained or otherwise provided for during the course of the maintenance work?	☐	☐	☐	
Transit Access Accommodations	Are there existing transit access accommodations in the vicinity of the work?	☐	☐	☐	
	Will transit access features be adversely affected during the course of maintenance work?	☐	☐	☐	
	Will transit access be maintained or otherwise provided for during the course of the maintenance work?	☐	☐	☐	

MAINTENANCE AND OPERATIONS SIGN-OFF

Maintenance and Operations Checklist Statement of Compliance	YES	NO
The proposed maintenance work, including providing for maintenance of the traffic (as needed), accommodates all users and is in accordance with Complete Streets principles. Signature:_____	☐	☐
If YES, forward to Complete Streets Implementation (CSI) Committee with any supporting documentation for concurrence. **If NO**, forward checklist to CSI Committee with documentation of any factors or circumstances exempting this project from Complete Streets policy compliance.		

CSI Committee Concurrence and Disposition:

Note: The CSI Committee must document its concurrence with the Statement of Compliance or, if an exemption is being sought, concur with the exemption before the project can advance to implementation. The CSI Committee may determine what additions or changes to the project must be incorporated before the project can advance to implementation.

Signature: _____ **Date:** _____

Print Name:_____

Signature: _____ **Date:** _____

Print Name:_____

Signature: _____ **Date:** _____

Print Name:_____

COMPLETE STREETS CHECKLIST:

RESURFACING PROJECT

The purpose of this checklist is to ensure that all resurfacing projects incorporate the intent of the Mount Olive Township Complete Streets Policy.

	Resurfacing Checklist Consideration	YES	NO	N/A	Comments
Context	Are there existing accommodations for bicyclists, pedestrians (including ADA) and transit users traveling on, along or across the existing facility?	☐	☐	☐	
	Are there planning documents that address bicycle, pedestrian or transit user conditions or needs proximate to the proposed resurfacing area?	☐	☐	☐	
	Does the current facility comply with ADA requirements for non-motorized travel?	☐	☐	☐	
	Is there a high incidence of bicycle or pedestrian crashes within the project limits?	☐	☐	☐	
	Have bicycle and pedestrian considerations been indentified with the project limits?	☐	☐	☐	
	Are there existing transit facilities within project limits (stops, stations, etc.)?	☐	☐	☐	
	Are there bicycle racks, shelters, or bike lockers available at existing land uses adjacent to the project?	☐	☐	☐	
	Are there street trees, planters, buffer strips or other environmental enhancements?	☐	☐	☐	
Proposed Accommodations	Does the proposed design accommodate bicycle travel along and across the facility?	☐	☐	☐	
	Does the proposed design accommodate pedestrians travel along and across the facility, including ADA compliance?	☐	☐	☐	
	Does the proposed design accommodate transit users in coordintation with the relevant transit authority?	☐	☐	☐	
	Does the proposed design protect and preserve landscaping, street trees, planters, buffer strips, or other environmental enhancements?	☐	☐	☐	
	During resurfacing, will safe access be maintained for all users, including pedestrians, bicyclists, transit users, and delivery vehicles?	☐	☐	☐	
	Does the proposed design worsen any bicycle or pedestrian facility? If yes, why?	☐	☐	☐	
	Are any of the following pedestrian, bicycle and transit facilities included? If yes, please identify which ones will be included.				
	☐ Accessible sidewalk curb ramps	☐ Crosswalks	☐ Pedestrian Countdown Signals	☐ Signs	☐ Shared lane markings
	☐ Curb extensions	☐ Pedestrian scale lighting	☐ Bike Lanes	☐ Bike compatible shoulders	☐ Other

COMPLETE STREETS IMPLEMENTATION COMMITTEE SIGN-OFF

Resurfacing Checklist Statement of Compliance	YES	NO
This resurfacing project accommodates all appropriate users consistent with its context. Signature:_____	☐	☐
If YES, forward to Complete Streets Implementation (CSI) Committee with any supporting documentation for concurrence. **If NO**, forward checklist to CSI Committee with documentation of any factors or circumstances exempting this project from Complete Streets policy compliance.		

CSI Committee Concurrence and Disposition:

Note: The CSI Committee must document its concurrence with the Statement of Compliance or, if an exemption is being sought, concur with the exemption before the project can advance to implementation. The CSI Committee may determine what additions or changes to the project must be incorporated before the project can advance to implementation.

Signature: _____ **Date:** _____

Print Name:_____

Signature: _____ **Date:** _____

Print Name:_____

Signature: _____ **Date:** _____

Print Name:_____

COMPLETE STREETS CHECKLIST:

CONSTRUCTION ACCESS

For each question, please identify whether the Complete Streets consideration is currently addressed, not addressed, or not applicable and provide a description of how the item will be addressed. Attach any necessary documentation to support your answer.

	Construction Checklist Consideration	YES	NO	N/A	Explanation of How the Item will be Addressed
Maintenance of access	During construction, will safe access be maintained for all users, including pedestrians, bicyclists, transit users, and delivery vehicles?	☐	☐		
Detour Routes	Will detour routes for all users on site or nearby be provided and clearly marked, including advanced warning signs?	☐	☐		

CONSTRUCTION PROJECT MANAGER SIGN-OFF

Construction Checklist Statement of Compliance	YES	NO
The Construction Traffic Plan accommodates all users. Signature: _____	☐	☐
If YES, forward to Complete Streets Implementation (CSI) Committee with any supporting documentation for concurrence. **If NO**, forward checklist to CSI Committee with documentation of any factors or circumstances exempting this project from Complete Streets policy compliance.		

CSI Committee Concurrence and Disposition:

Note: The CSI Committee must document its concurrence with the Statement of Compliance or, if an exemption is being sought, concur with the exemption before the project can advance to implementation. The CSI Committee may determine what additions or changes to the project must be incorporated before the project can advance to implementation.

Signature: _____ **Date:** _____

Print Name:_____

Signature: _____ **Date:** _____

Print Name:_____

Signature: _____ **Date:** _____

Print Name:_____

Appendix K: Implementation Matrix/ Typical Costs

Complete Streets Implementation Matrix/ Typical Costs				
FACILITY TYPE		**COSTS** **LOW-MEDIUM-HIGH**	**RESPONSIBILITY**	**TIME-FRAME** **Short Term: 1 year** **Medium Term: 1-2 years** **Long Term: 2 years or more**
Sidewalks Curb Ramps	A.	$50/ LF	Shared Property Owner	Short
	B.	$500-1,500	DPW	Long
Pedestrian-Scale Lighting		$1,000-2,000/unit Spaced 50' on center	DPW	Long
Parklets		$500-5000	Private sponsor/ public partnership	Short
Mid-block crossings		$500	DPW	Short
Gateways		$500-5,000	DPW	Mid
Crosswalks	A. Striped	$1,000-2,000	DPW	Short
	B. Paver Style	$2,000-10,000	DPW	Short
Mini-traffic circles		$2,000-10,000	DPW	Mid
Curb Extensions	A. No Drainage	$2,000-5,000	DPW	Mid
	B. Drainage Required	$5,000-10,000	DPW	Mid
Pedestrian refuge islands		$5,000-10,000	DPW	Mid
RRFB (Flashing warning lights)		$5,000	DPW	Short
In-Street Crossing Sign		$200	DPW	Short
Pedestrian Countdown Signals		$10,000-20,000* (May require new traffic signal- $200,000)	DPW/ County	Mid

Conventional Bicycle Lanes	~$10,000-15,000/mile	DPW	Short
Buffered Bicycle Lanes	$15,000-20,000/mile	DPW	Short
Two-way protected bicycle lanes	$15,000-20,000/mile	DPW	Short
Bicycle Lanes/ Shared Lane Combo	$5,000/mile	DPW	Short
Contraflow Bicycle Lanes	$15,000-20,000/mile	DPW	
Bicycle Boulevard (Speed humps/tables, Shared Lanes)	$5,000-20,000/mile	DPW	Mid
Advisory Bicycle Lanes	$10,000-15,000/mile	DPW	Short
Sharrows or Shared Lane Markings	$2,000-5,000/mile	DPW	Short
Shared Use Path	$1-2,000,000/mile	DPW	Long

Note: The matrix lists a range of typical facility design solutions. Not all are part of the recommendations in this study, and are provided for future planning and information purposes only.

Appendix L: Potential Funding Sources

Projects that benefit bicyclists and pedestrians are funded through federal and state programs, private sector investment, and nonprofit initiatives. Current funding sources and their requirements are discussed in more detail in this section.

Federal Funding Opportunities

Federal funding available for bicycle related projects is in a state of flux until a new federal transportation bill is updated. The current Federal Transportation Bill — known as Moving Ahead for People in the 21st Century (MAP-21) — was passed in 2012. Federal funding is set to expire on October 29, 2015. As new federal transportation legislation is adopted, the Township of Mount Olive should work closely with NJTPA, Morris County, and NJDOT to monitor and take advantage of the new funding opportunities.

Transportation Alternatives Program (TAP)

Transportation Alternatives is the largest federal source for bicycle and pedestrian funding under MAP-21. TAP provides federal funds for community based "non-traditional" projects designed to strengthen the cultural, aesthetic and environmental aspects of the nation's intermodal system. TAP projects must relate to surface transportation.

While Transportation Alternatives projects are federally funded, the funds are administered by the New Jersey Department of Transportation and the state's Metropolitan Planning Organizations (MPOs).

Eligible projects must fall into one of the following seven categories:

1. Provision of facilities for pedestrians and bicycles (sidewalks, curb ramps, bike lane striping, wide paved shoulders, bike parking, off-road trails, bike and pedestrian bridges and underpasses).
2. Scenic or historic highway programs including the provision of tourist and welcome center facilities as well as scenic turnouts, overlooks and viewing areas.
3. Landscaping and other scenic beautification (streetscape projects including lighting, benches, planting, decorative walls, and walkways; the reintroduction of native or endangered plants or trees).
4. Historic preservation.
5. Rehabilitation of historic transportation buildings, structures and facilities (including historic railroad facilities and canals).
6. Preservation of abandoned railway corridors (including the conversion and use for pedestrian and bicycle trails).
7. Environmental mitigation to address water pollution due to highway runoff or reduce vehicle-caused wildlife mortality while maintaining habitat connectivity.

The federal funds for TAP projects are provided to the project LPA on a reimbursement basis only. The local public agency (LPA) must have the financial capability to advance project costs for materials and contractors. Before applying, prospective LPAs should assess their capability to comply with state and federal requirements for procurement of materials and services, accounting practices, right-of-way and easement acquisitions, environmental regulations and applicable design standards.

For more information on the Transportation Alternatives Program in New Jersey, visit http://www.state.nj.us/transportation/business/localaid/alternatives.shtm

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.

Projects must be located within two miles of a school that serves students in grades K-8. 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.

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.

For more information, visit www.state.nj.us/transportation/business/localaid/srts.shtm **or** http://www.njtpa.org/project-programs/project-development/safe-routes-to-school.aspx

Local Safety Program

The Local Safety Program (LSP) was established by the NJTPA in 2005 in conjunction with NJDOT as a competitive program. The purpose of this program is to advance quick-fix safety improvements on county and local roadway facilities within its region. To date, over $44 million in projects have been selected for the program. Municipalities located within the subregions may make a request through their respective county to sponsor an application.

Local Safety Program projects typically address NJTPA/NJDOT derived high priority crash locations. Projects must be supported with detailed crash data, and will be in a construction-ready state at the time federal authorization is received. Proposals must demonstrate a location's crash history (using multi-year data) and clearly show a relationship between the types of crashes and the proposed improvements (e.g., pedestrian signals will address a history of pedestrian crashes).

Crash prone locations within the NJTPA region have been identified with the assistance of NJDOT using network screening.

Recreational Trails Program (RTP)

The Federal Highway Administration's Recreational Trails Program (RTP) provides financial assistance to states for developing and maintaining trails and trail facilities. The RTP funds come from the Federal Highway Trust Fund, and represent a portion of the motor fuel excise tax collected from non-highway recreational fuel use. Since the program's inception in 1993, New Jersey has awarded more than $16 million to federal, state, county and local governments, and non-profit agencies. Projects are funded on an 80% federal share and 20% matching share basis.

The DEP's Green Acres Program administers the program in New Jersey. Projects are reviewed and recommended for funding by the New Jersey Trails Council. Land on which trail facility is to be funded must be public land or private land with an easement for public recreational use. Maximum grant award is $24,000 for non-motorized projects.

Permissible uses and projects include:

- Maintenance and restoration of existing trails;
- development and rehabilitation of trailside and trailhead facilities and trail linkages for trails (e.g., parking, signage, shelters, sanitary facilities);
- purchase and lease of trail construction and maintenance equipment;
- construction of new trails in existing parks or in new right of way;
- for motorized use only, acquisition of easement and fee simple title to property for trails.

Activities not eligible for funding include land condemnation; trail feasibility studies; law enforcement activities and personnel; road and sidewalk repairs; purchase of promotional materials; projects on land with railroad tracks; conversion of non-motorized trails to motorized use.

For more visit, www.nj.gov/dep/parksandforests/natural/trail_grants.htm

State Funding Opportunities

NJDOT Municipal Aid

Under Municipal Aid program, each county is apportioned a share of the total funding based on population and the number of local centerline miles. Municipalities compete for portions of their county's share. NJDOT provides 75 percent of the grant amount when a town awards a contract and the remaining 25 percent upon completion of the project.

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. For more information, visit www.state.nj.us/transportation/business/localaid/municaid.shtm

NJDOT Bikeway Grant Program

The 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.

Although priority will be given to construction of new bike paths, the proposed construction or delineation of any new bicycle facility will be considered. Ineligible projects/activities include right-of-way purchases associated with any project, operating costs associated with any project, and planning activity costs. In order to be eligible, a project must place no restrictions upon hours of use by bicyclists (with the exception of dusk-to-dawn closings, as of some parks). Applicants must use the AASHTO 2012 Guide for the Development of Bicycle Facilities For more information, visit www.state.nj.us/transportation/business/localaid/bikewaysf.shtm

NJDOT Safe Streets to Transit (SSTT)

SSTT program provides funding to counties and municipalities in improving access to transit facilities and all nodes of public transportation. The objectives of the SSTT program are:

- To improve the overall safety and accessibility for mass transit riders walking to transit facilities.
- To encourage mass transit users to walk to transit stations.
- To facilitate the implementation of projects and activities that will improve safety in the vicinity of transit facilities (approximately one-half mile for pedestrian improvements).

Types of work eligible for funding under SSTT include:

- Intersection safety improvements
- Constructing new sidewalks, curb ramps, sidewalk widening and major reconstruction
- Traffic calming measures
- Pedestrian oriented lighting
- Traffic control devices that benefit pedestrians

Bicycle facilities are not eligible for funding.
For more information, visit www.state.nj.us/transportation/business/localaid/safe.shtm

NJ Division of Highway Traffic Safety 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. Grants available include:

Comprehensive Traffic Safety Programs (CTSP's)

Comprehensive Traffic Safety Program grants address multiple traffic safety concerns within a county or larger community. CTSP grants include numerous tasks and strategies involving enforcement, education and engineering. The potential grantee must provide a detailed Problem Identification section with extensive information about the community, motor vehicle crash experience (including pedestrian & bicycle), data analysis and creative solutions to reduce these crashes.

Pedestrian Safety

The goal of the pedestrian safety program area is to lower the pedestrian fatality and injury rates. In the Central Region, 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

New Jersey Healthy Communities Network Grants

These grants support projects advancing the implementation of policy changes and/or development of the built environment to support healthy eating and active living. Supported projects make the healthy choice the easy choice; make healthy food and beverages the affordable, available and desired choice; encourage and support physical activity by ensuring accessibility and safety; and make healthy school, work, and community environments the norm and not the exception. In 2016, up to 50 New Jersey-based entities will receive grants of up to $20,000. http://njhcn.org/

Private and Non-profit Funding Sources

Sustainable Jersey

Sustainable Jersey registered towns get special priority access and notification of incentives and grants, and are eligible for the Sustainable Jersey Small Grants program. Over $1.75 million in grants have been provided to towns for community-based projects to improve quality of life in New Jersey.

Eligible projects include actions that would score a municipality points toward Sustainable Jersey certification. This includes projects addressing issues from renewable energy and green building design, waste reduction, a sustainable master plan, water conservation, natural resources

management, energy management, and transportation issues. Most projects also include public outreach campaigns and many have involved school children and community organizations. www.sustainablejersey.com/grants-resources/sustainable-jerseysmall-grants-program/

People for Bikes Community Grants

The PeopleForBikes Community Grant Program provides funding for important and influential projects that leverage federal funding and build momentum for bicycling in communities across the U.S. These projects include bike paths and rail trails, as well as mountain bike trails, bike parks, BMX facilities, and large-scale bicycle advocacy initiatives.

Since 1999, we have awarded 341 grants to non-profit organizations and local governments in 49 states and the District of Columbia. Our investments total more than $2.9 million and have leveraged nearly $670 million in public and private funding. http://www.peopleforbikes.org/pages/community-grants

The Robert Wood Johnson Foundation

The Robert Wood Johnson Foundation 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. www.rwjf.org/en/how-we-work/grants.html

Other Potential Funding Sources

The following funding sources for greenways have been identified by Project for Public Spaces, Rails-to-Trails Conservancy and the National Trails Training Partnership.

Municipal Allocations

The most common sources of funding at the municipal and county level include allocations from a specific department, such as the park and recreation department or public works department. Incorporating funding for maintenance of bicycle and pedestrian facilities into the annual budget guarantees funds are available to cover maintenance.

In some localities, a portion of an increase in the sales tax will be set aside for recreational trail or other conservation funding. Rarely, new taxes will be levied to exclusively support active transportation projects.

Impact Fees

Regulated by subdivision policies, 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 dedicated set-aside account established to help develop a county- or city-wide system of trail or greenway projects.

Local Private-Sector Funding

Local industries and private businesses may agree to provide support for greenway development through one or more of the following methods:

- Donations of cash to a specific greenway segment
- Donations of services by large corporations to reduce the cost of greenway implementation, including equipment and labor to construct and install elements of a specific greenway
- Reductions in the cost of materials purchased from local businesses that support greenway implementation and can supply essential products for facility development

Adopt-A-Trail Programs

These are typically small grant programs that fund new construction, repair/renovation, maps, trail brochures, facilities (bike racks, picnic areas, birding equipment).

Membership Campaigns

The return from this can be significant (The Pikes Peak Area Trails Coalition raises $18,000 per year), but your effort must be repeated every year.