









NIVI5



#### **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. Parsippany, NJ 07054

and



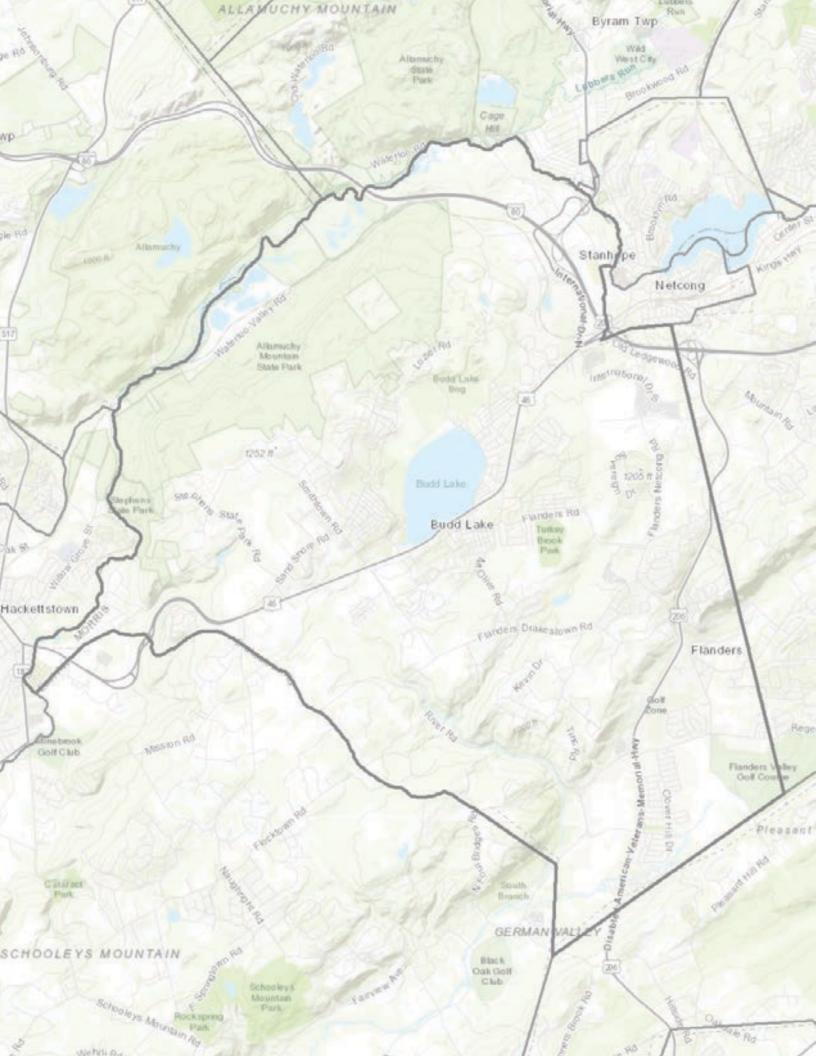
Civic Eye Collaborative 55 McCoy Avenue Metuchen, NJ 08840

#### Disclaimer:

This publication has been financed with federal funds provided by the United States Department of Transportation's Federal Highway Administration as administered by the New Jersey Department of Transportation (NJDOT). The United States Government assumes no liability for its contents or its user thereof.

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### 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.

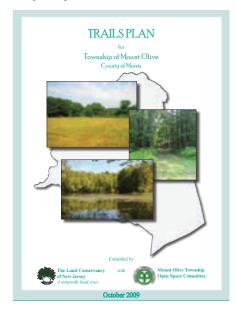
The Township indicated that bicycle and pedestrian travel along existing state roadways within the municipality, particularly Route 206 and Route 46, is challenging due to truck traffic. The Township would welcome any improvements to enhance safety.

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

#### **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.





#### **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 ProjectTeamrepresentatives. 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, Plan4Safety¹, 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 Plan4Safety¹ 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 Plan4Safety¹ 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:

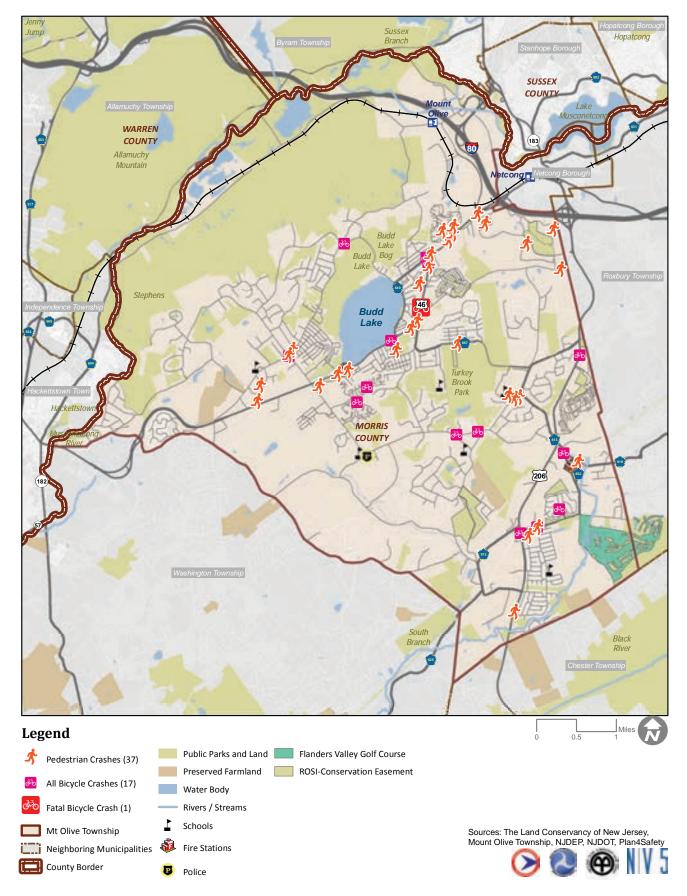
- · High School, Turkey Brook Park
- ITC Crossing
- Route 206 & Columbia Trail
- Budd Lake (Route 46, Wolfe Road, and Sandshore Road)
- Waterloo Valley Road

<sup>1</sup> 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 CRASHES (2006-2015)

WORKING DRAFT For Discussion Purpose Only



## **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.

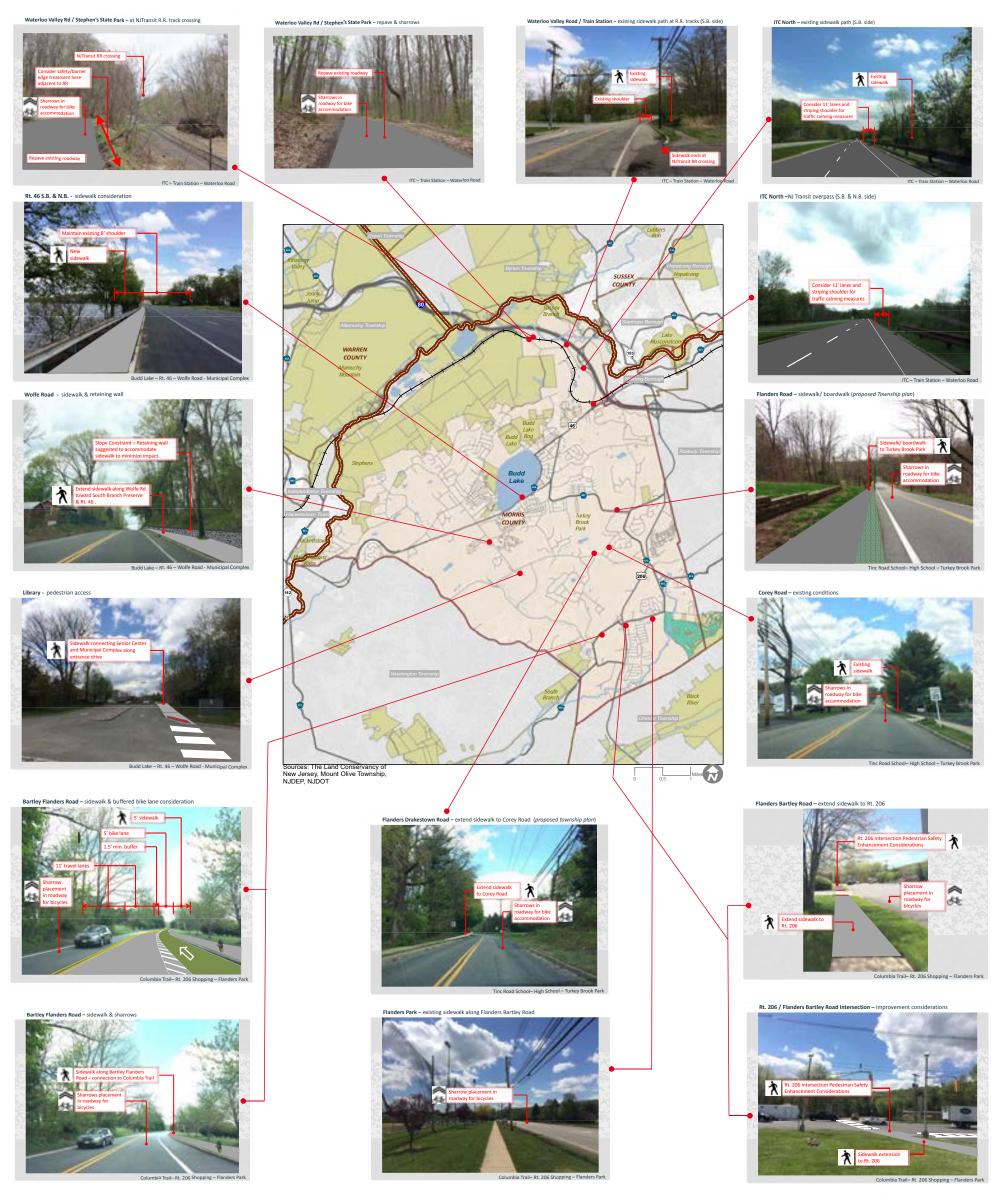
#### **Potential Funding Sources**

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



# **MOUNT OLIVE TOWNSHIP** PEDESTRIAN PLAN MOUNT OLIVE TOWNSHIP, NJ BICYCLE & PEDESTRIAN PLAN BICYCLE & PEDESTRIAN PLAN

**Study Recommendations** 

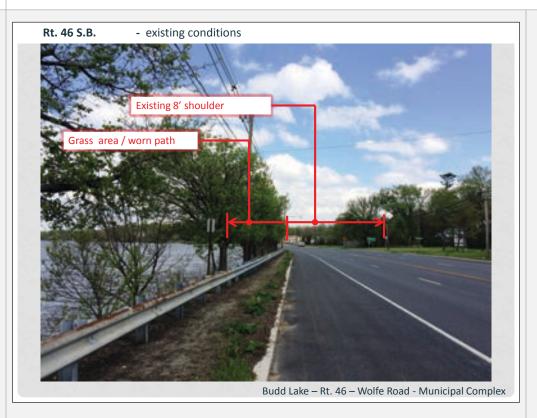




# **Existing Conditions**

#### **BUDD LAKE - ROUTE 46 - WOLFE ROAD - MUNICIPAL COMPLEX**

#### **ROUTE 46 SOUTHBOUND**



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



 Provide new sidewalk along Rt. 46 for pedestrian accommodation

#### **BUDD LAKE - ROUTE 46 - WOLFE ROAD - MUNICIPAL COMPLEX**

#### **WOLFE ROAD**



 No existing sidewalk or other pedestrian accommodations along Wolfe Road



- Provide sidewalk accommodation
- Install retaining wall to minimize impacts

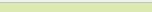
# **Existing Conditions**

#### **BUDD LAKE - ROUTE 46 - WOLFE ROAD - MUNICIPAL COMPLEX**

#### **LIBRARY**



 No sidewalks or other pedestrian accommodations to or from the Library





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

#### **FLANDERS PARK**



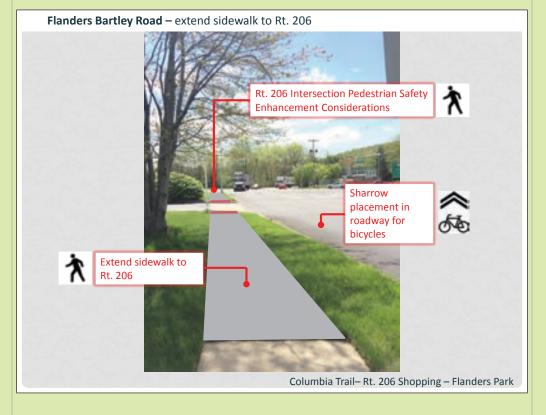
 Consider bicycle accommodation along Flanders Bartley Road to complement existing sidewalk.

#### **FLANDERS BARTLEY ROAD**



Existing sidewalk ends abruptly

Recommendations & Concepts

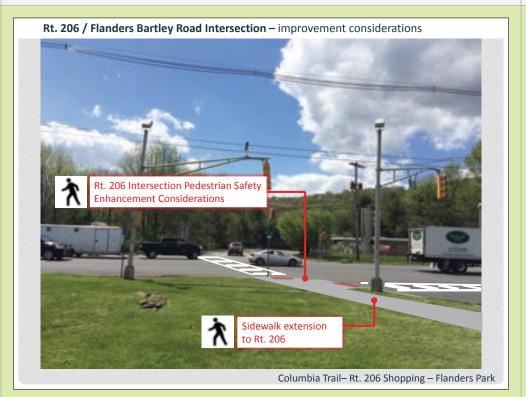


- Extend sidewalk toward Route 206 intersection
- Consider bicycle acommodation in road to complement pedestrian accommodation

#### **ROUTE 206/FLANDERS BARTLEY ROAD**

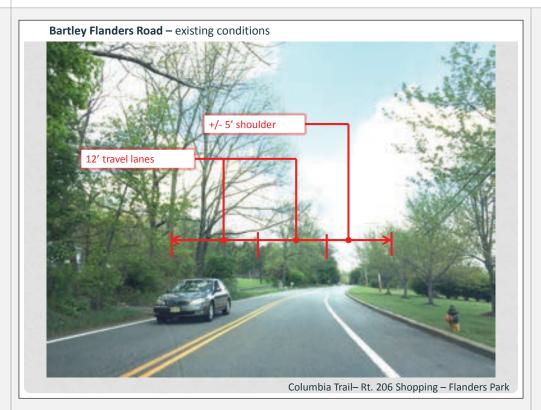


 No existing pedestrian safety accommodations at intersection



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

#### **BARTLEY FLANDERS ROAD**

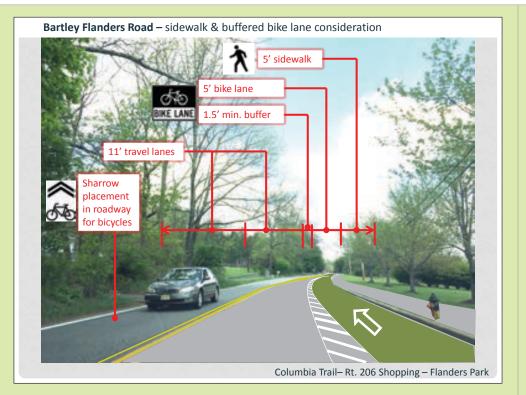


 No existing pedestrian or bicycle accommodations



 Provide sidewalk for pedestrians and consider sharrows for bicyclists

#### **BARTLEY FLANDERS ROAD**

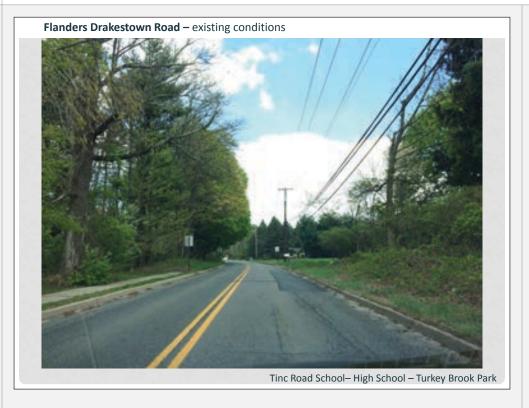


 Provide sidewalk for pedestrian accommodations and a buffered bike lane

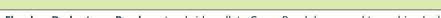
# **Existing Conditions**

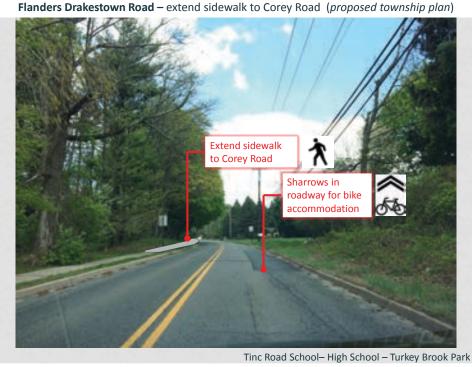
#### TINC ROAD SCHOOL - HIGH SCHOOL - TURKEY BROOK PARK

#### **FLANDERS RD**



 No existing pedestrian or bicycle accommodations





- Provide sidewalks for pedestrians
- Consider sharrows for bicycle accommodation

#### TINC ROAD SCHOOL - HIGH SCHOOL - TURKEY BROOK PARK

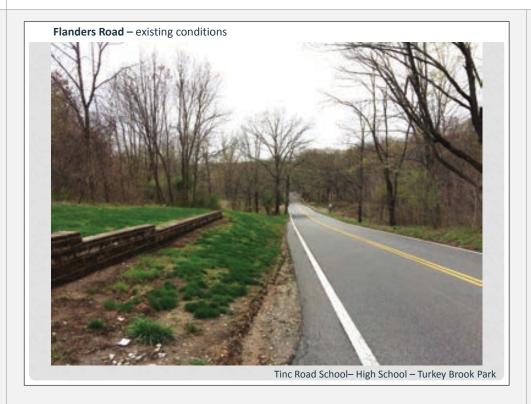
#### **COREY ROAD**



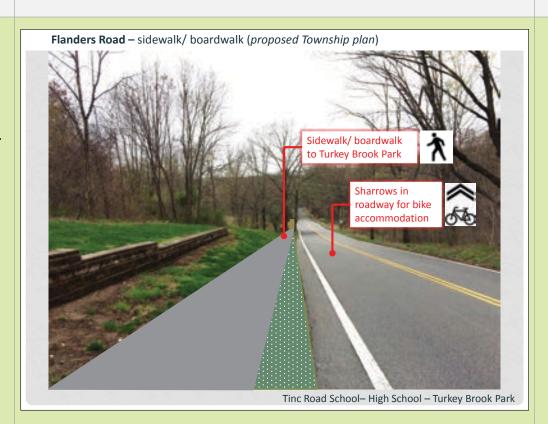
 Consider sharrows for bicycle accommodation to complement existing sidewalk

#### TINC ROAD SCHOOL - HIGH SCHOOL - TURKEY BROOK PARK

#### **FLANDERS ROAD**



 No existing pedestrian or bicycle accommodations near High School



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

#### **ITC - TRAIN STATION - WATERLOO**

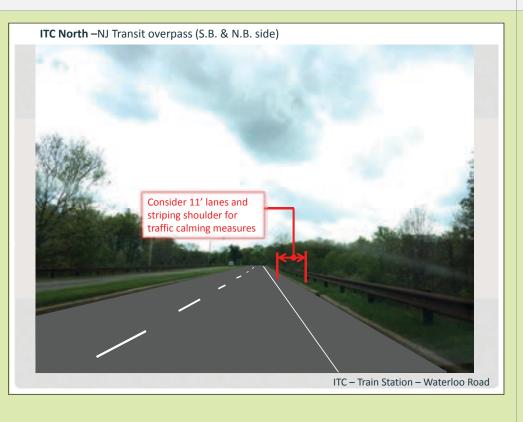
#### **ITC NORTH**

**Existing Conditions** 



 No existing pedestrian or bicycle accommodations

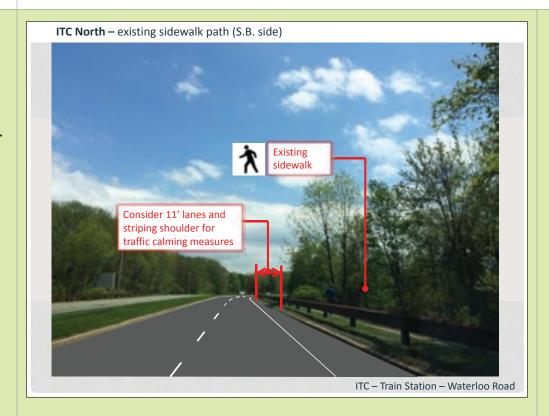
Recommendations & Concepts



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

#### **ITC - TRAIN STATION - WATERLOO ROAD**

#### **ITC NORTH**



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



 Existing shoulder and sidewalk at NJTransit RR crossing

#### **ITC - TRAIN STATION - WATERLOO**

#### WATERLOO VALLEY ROAD / TRAIN STATION



Existing roadway section

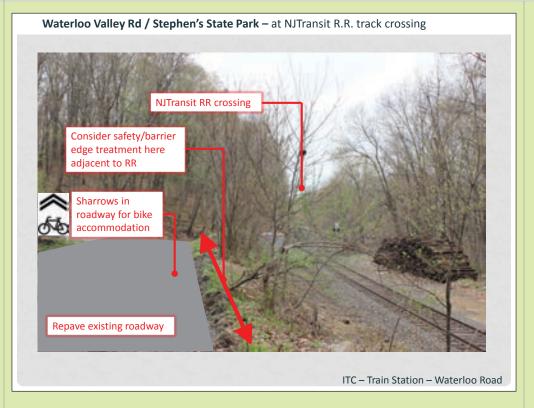


 Resurface existing pavement and provide sharrows to accommodate bicyclists

#### **ITC - TRAIN STATION - WATERLOO**

#### WATERLOO VALLEY ROAD / TRAIN STATION

Recommendations & Concepts



 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 (<u>www.bikeleague.org</u>).
- Seek status as a Walk Friendly Community from the Walk Friendly Communities national recognition program (<u>www.walkfriendly.org</u>).



#### 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 bicyclefriendly 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.

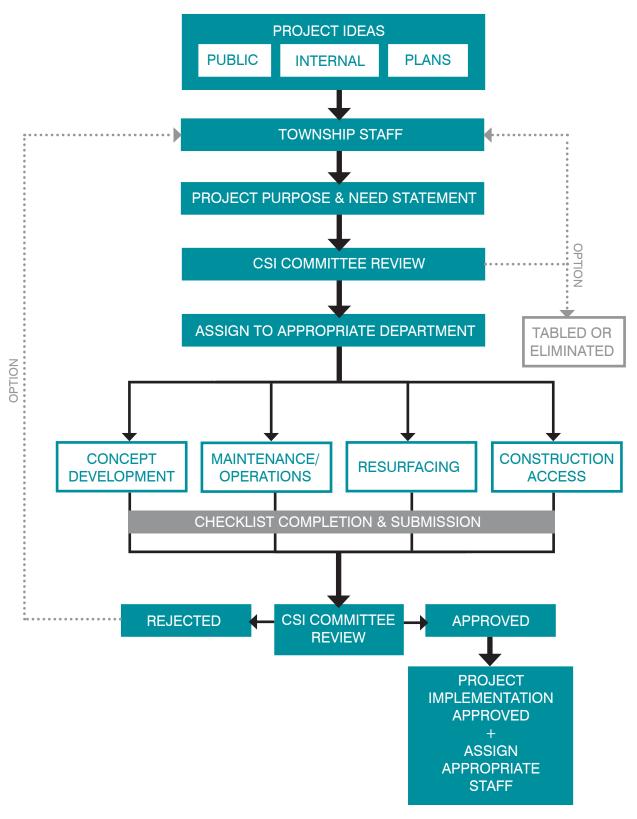
To initiate the process, a project "Purpose and Need Statement" would be completed by an initiator of the proposed project (either internal to the Township, or an external party with a vested interest). The project purpose and need statement describes the proposed project area, existing conditions, local 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
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Mount	Olive	Townshin	NΠ

## **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

01/12/2017 at 1:00 pm Mount Olive Township Council Chambers DATE:

**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.

- 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.



- 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.
  - o Lego Event
  - o Cabin Fever Reliever
  - o High School Robotics Event
  - o Color Run
  - o Fairy and Pirate Festival
  - o Relay for Life





Figure 1: Conducting Virtual Map Tour



**Figure 3: Steering Committee** 



Figure 2: Conducting PowerPoint Presentation



Figure 4: Identifying concept areas



#### **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



#### STEERING COMMITTEE - KICK-OFF MEETING

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MIKE POCQUAT	4 TRIUMPH CT. FLANDIOUS NJ	HOMPOCQUAT QMTOLIVETE
Katha Murohn	31 Camelat Budd Pake NU 87878	KKMurohul @ notonline. net
Daniel Amaria	P RIGHT NO	demindesoptembernet
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#### STEERING COMMITTEE - KICK-OFF MEETING

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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 Dlive'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 <u>Project Steering Committee Kick-Off Meeting</u> has been scheduled for <u>January 12<sup>th</sup></u>, <u>2017</u> at <u>1pm</u> at the <u>Municipal Building at 204 Flanders-Drakestown Rd</u>, in <u>Mount Olive</u>.

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

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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

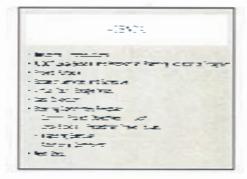
William Riviere@dot.nj.gov

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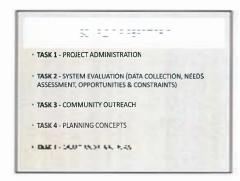








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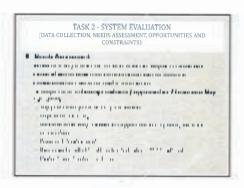






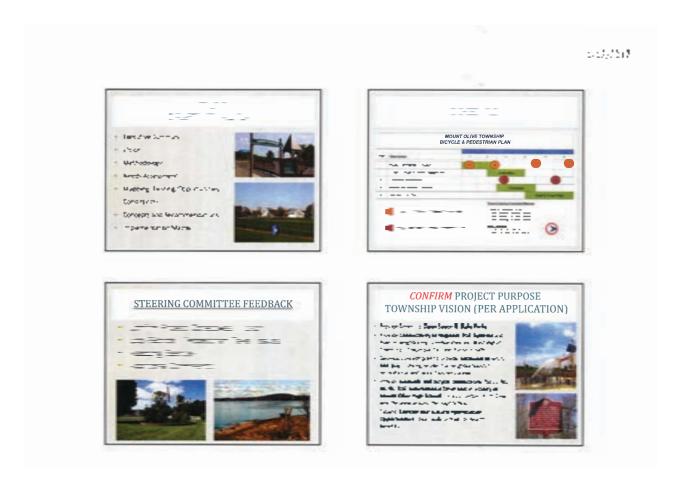
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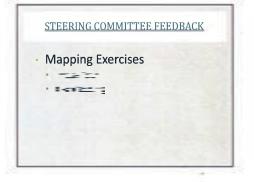


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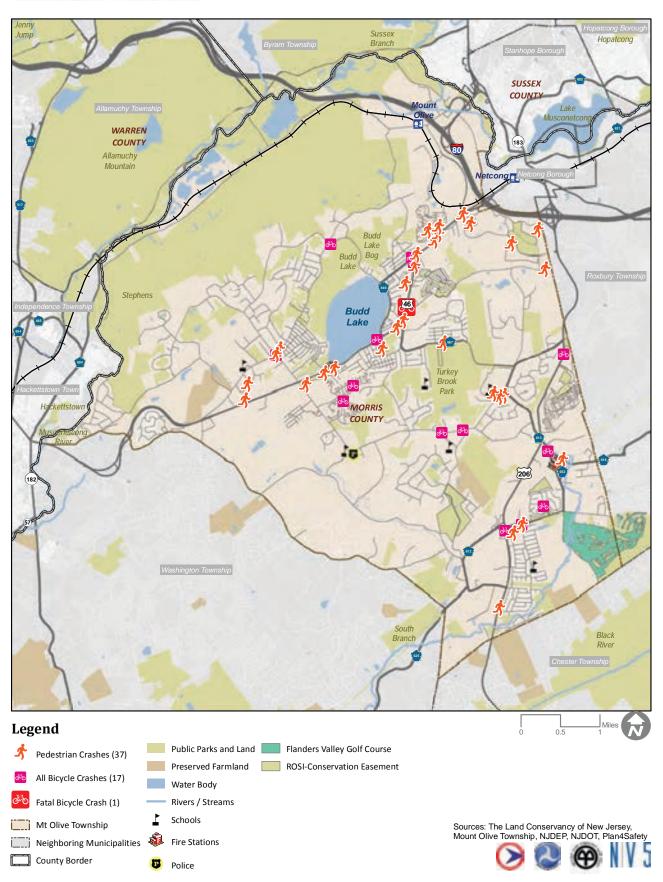


# System Evaluation Needs Assessment Press Release / Survey (confirm questions) Steering Committee Meeting (late February) in advance of Vision Workshop Vision Workshop (discuss date / forum)



# BICYCLE & PEDESTRIAN CRASHES (2006-2015)

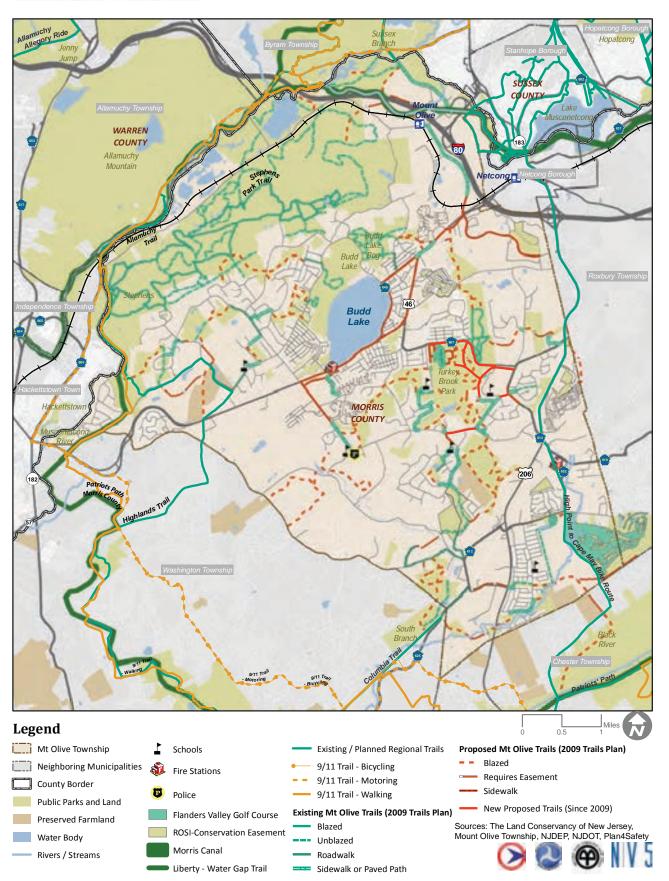
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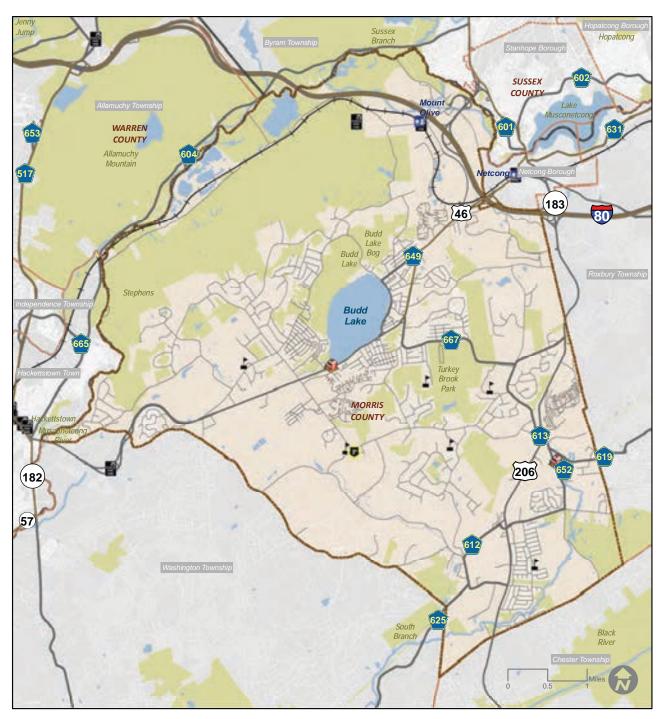


# STUDY AREA MAP

WORKING DRAFT For Discussion Purpose Only



WORKING DRAFT For Discussion Purpose Only



#### Legend



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**:













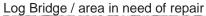
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CONSTRUCTION QUALITY ASSURANCE + INFRASTRUCTURE + ENERGY + PROGRAM MANAGEMENT + ENVIRONMENTAL

Page 6

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)







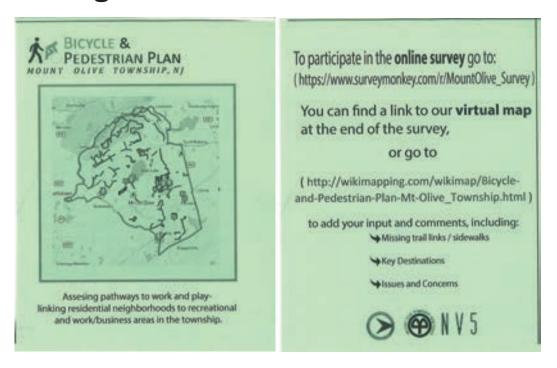
Trash on Trails



More Trash on Trails

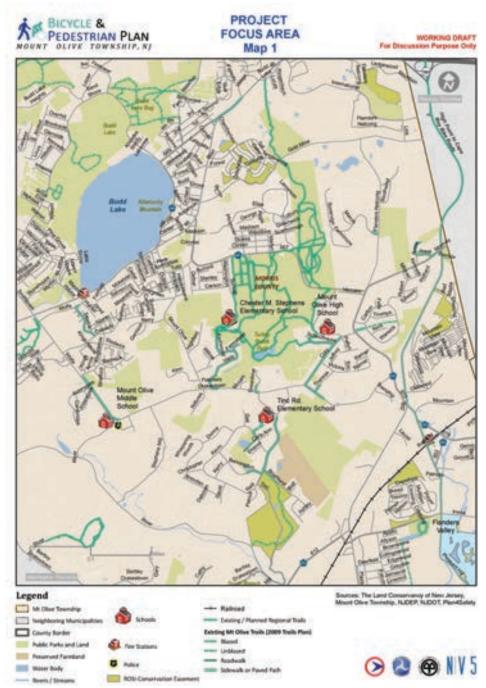


# **Meeting Materials:**



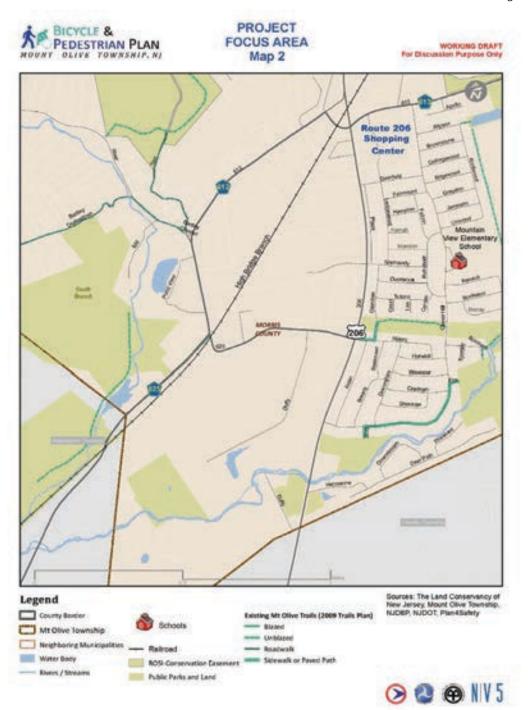
Handout about the Project and providing links to the Survey and WikiMap





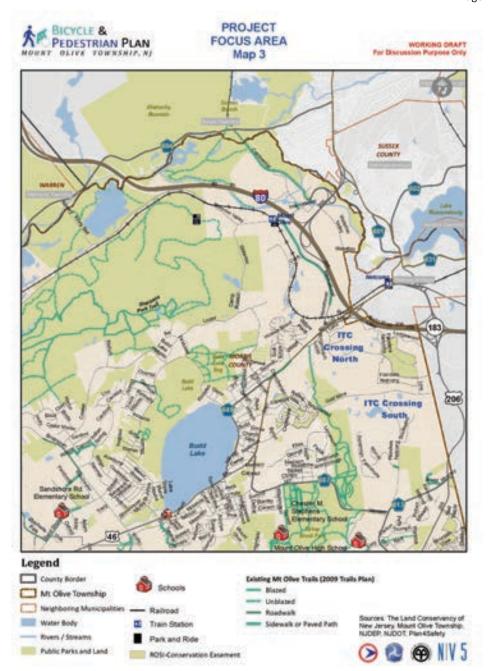
Focus Area 1 (For Stakeholder Input, see Page 11 of this summary)





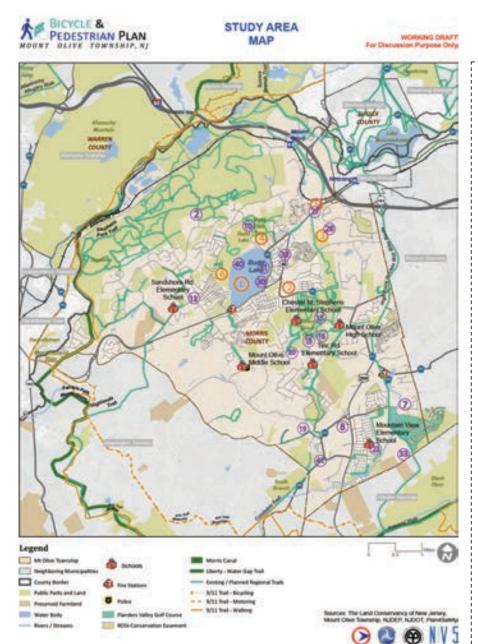
#### Focus Area 2 Map (For Stakeholder Input, see Page 11 of this summary)





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





# Overall Project Area with Stakeholder Comments

#### Stakeholder Commentary:

# Map markups by Stakeholders (in Orange):



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

  Marsh areas need work
- **4.** Bog Area Trailsproposed 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)



#### <u>Stakeholder Comments</u> (shown on overall map - Page 11):

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- 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
  - o 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
  - o Consider narrowing lanes to 11' and enlarging shoulder area
  - o 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)
  - o Could consider protected bike lane (requires shoulder impact)
  - o NJDOT previous review of need for overpass at this location: not justified



#### **MOUNT OLIVE BICYCLE AND PEDESTRIAN PLAN**

#### 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
  - o Review of pedestrian activity and crash records, next phase

#### 8. Bartley Flanders Road NB from River Road to Route 206

- Good potential for sidewalk
  - o Pavement marking
  - o 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
  - o Need signs on Flanders Road
  - Need information e.g., approximate length

#### 15. Turkey Brook Park



#### **MOUNT OLIVE BICYCLE AND PEDESTRIAN PLAN**

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

#### 16. Tinc Road

- Sidewalk segment; close gap by school
  - o Need signs on Flanders Road

#### 17. Flanders Drakestown Road between Flanders Road and Tinc Road

Extend existing sidewalk

#### 18. Waterloo Road

- Poor condition
  - o Remote, but has potential (lightly traveled)
  - o 17.5' x 18' wide
  - R/R crossing
  - Could connect into Sussex County
  - o Jurisdiction (County, Township)?
  - o Allamuchy State Park area, but no signs
  - o Lake area
  - Some off-road debris (dumping)
  - o 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
  - o 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



#### Field Visit April 27, 2017

#### **MOUNT OLIVE BICYCLE AND PEDESTRIAN PLAN**

- 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





# PHOTO LOG APRIL/MAY 2017

#### **Destinations**





Columbia Trail





Columbia Trail







Flanders Park

Flanders Park

7 CAMPUS DRIVE, SUITE 300 PARSIPPANY, NJ 07054 WWW,NV5.COM OFFICE 973,946,5600 FAX 973,984,5421

CONSTRUCTION QUALITY ADSURANCE - INFRASTRUCTURE - ENERGY - PROGRAM MANAGEMENT - ENVIRONMENTAL.





Mount Olive Library



Mount Olive Library



Mount Olive Train Station



Turkey Brook Park (White Trail)



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

7 CAMPUS DRIVE, SUITE 300 | PARSIPPANY, NJ 07054 | WWW.NV5.COM | OFFICE 973,946.5600 | PAX 973,984.5421

CONSTRUCTION QUALITY ABBURANCE - INFRASTRUCTURE + EXERCY - PROGRAM MANAGEMENT - ENVIRONMENTAL









Turkey Brook Park

## Roadways



Bartley Flanders Rd northbound



Bartley Flanders Rd northbound



Bartley Rd northbound



Bartley Rd northbound

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Corey Rd approach to High School



Corey Rd

Approaching High School entrance along Corey Rd

Flanders-Drakestown Rd



High School entrance along Corey Rd





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





Flanders Netcong Rd



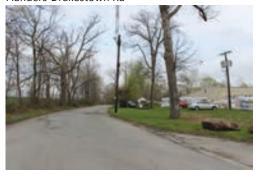
Gold Mine Road



ITC North – looking northwest



Flanders-Drakestown Rd



Gold Mine Road



ITC North – looking southeast from Waterloo Rd



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

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CONSTRUCTION QUALITY ADSURANCE + INFRASTRUCTURE + EXERGY - PROGRAM MANAGEMENT + ENVIRONMENTAL





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



Sand Shore Rd west of Budd Lake at trail access



South Branch Preserve



South Branch Preserve



South Branch Preserve



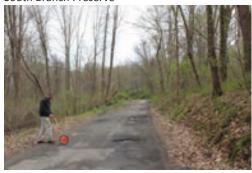
South Branch Preserve



South Branch Preserve



Waterloo Valley Rd



Waterloo Valley Rd

7 CAMPUS DRIVE, SUITE 300 | PARSIPPANY, NJ 07054 | WWW,NY5,COM | OFFICE 973,946,5600 | FAX 973,984,5421

CONSTRUCTION QUALITY ADBURANCE - INFRASTRUCTURE + EXERCY - PROGRAM MANAGEMENT - ENVIRONMENTAL





Waterloo Valley Rd- near NJTransit crossing



Waterloo Valley Rd – looking west to train station



Intersection Wolfe Road/Route 46



Waterloo Valley Rd – looking west to Waterloo Rd



Waterloo Valley Rd – looking east from Waterloo Rd



Wolfe Road





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

Mount Olive Township, NJ	

## **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 <u>discussion purposes only</u>. 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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- 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.

## o 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.
- o 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



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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

- o This area has opportunities for "eco-tourism" draw
- Of 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.
- o 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.
- o 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.

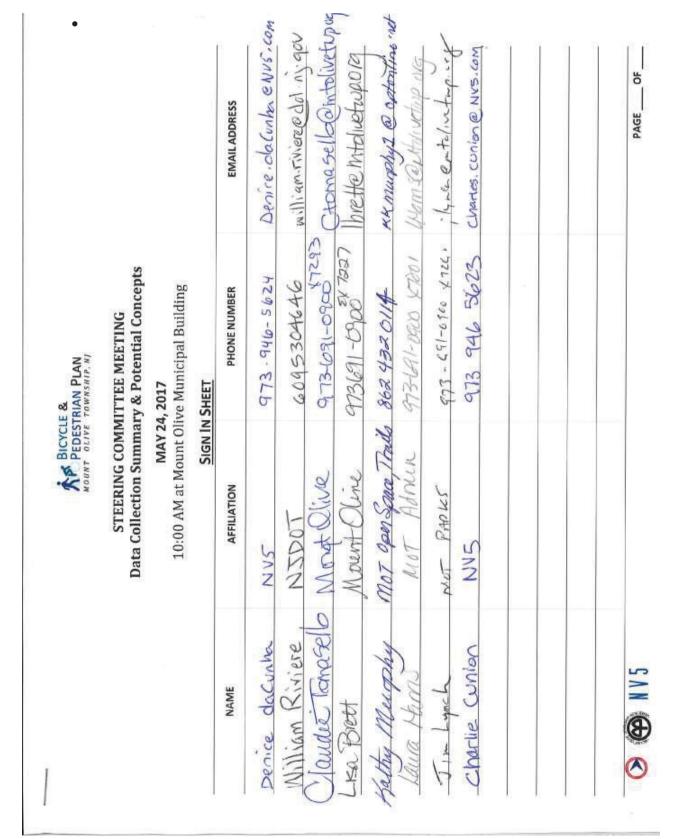
## **Attachments:**

- Attendee List
- PowerPoint Presentation
- Handouts



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

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## **AGENDA**

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





## **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.



## ABOUT MOUNT OLIVE TOWNSHIP

- Turkey Brook Park, major recreational area centrally
- 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 Mans, Aerial Mans
- 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
- 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



## 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

Barrier and conflict locations (pedestrian conflict locations)

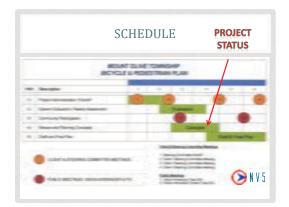
· Proposed development

· 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





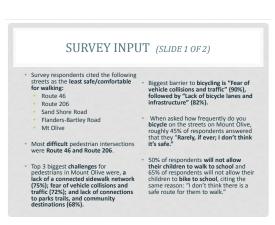




# PUBLIC VISIONING / INPUT MARCH 11, 2017 Location: Mount Olive High School Information Booth Map boards for stakeholder markup Laptop station to complete survey and/or WikiMap Handouts advertising the project

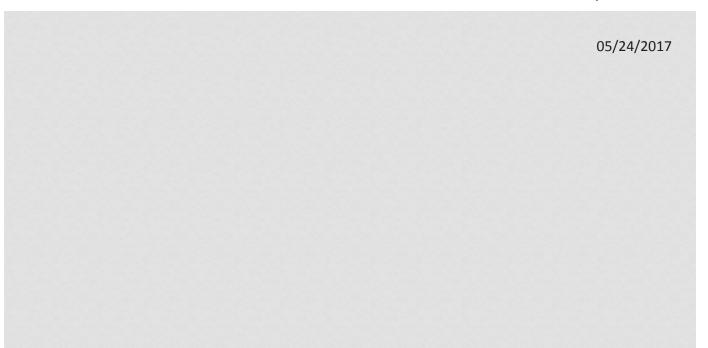
# PUBLIC VISIONING / INPUT MARCH 11, 2017 • Stakeholder Feedback Excerpts from the Public Visioning: Would ride bike on roads if there were wider shoulders High School Student comment) Did not know we had trails! It will be should be s

# • 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







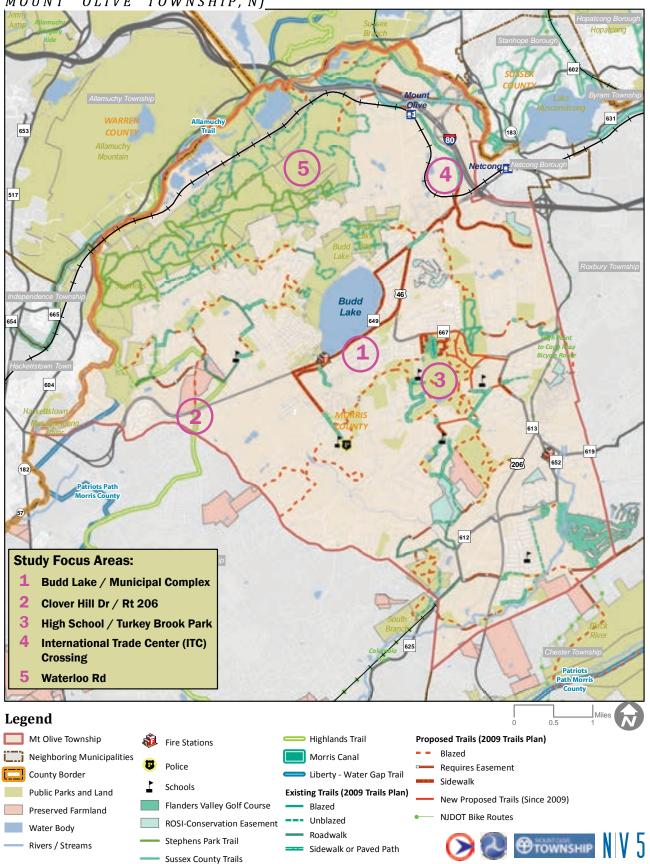


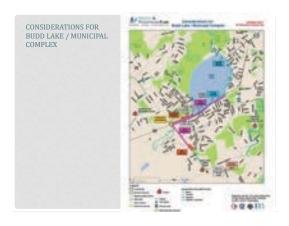
## LOCAL BIKE /WALK NETWORK CONNECTION CONSIDERATIONS

for Steering Committee Discussion

BICYCLE &
PEDESTRIAN PLAN
MOUNT OLIVE TOWNSHIP, NJ

Working Draft For Discussion Purposes Only

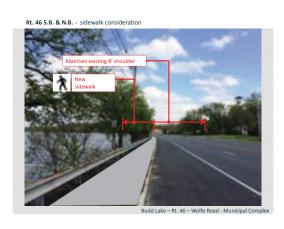


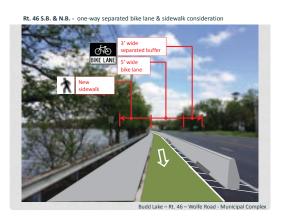




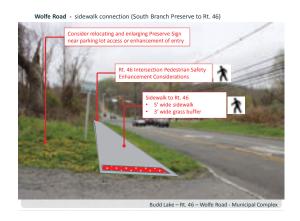


































Rt. 206 / Flanders Bartley Road Intersection – existing conditions



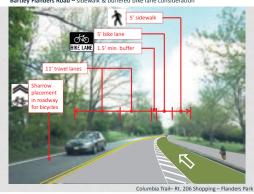


Bartley Flanders Road – existing conditions





Bartley Flanders Road – sidewalk & buffered bike lane consideration



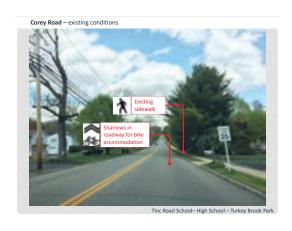
Columbia Trail - trail access along Bartley Flanders Road





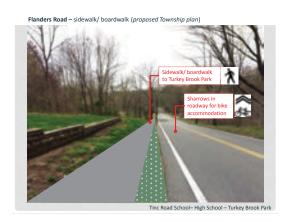








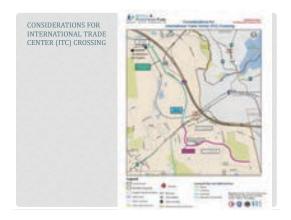




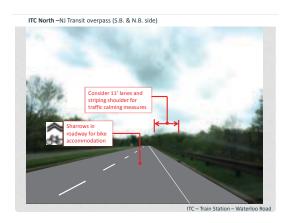




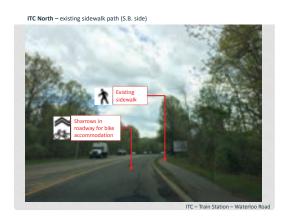
























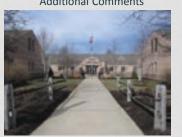
Waterloo Valley Rd / Stephen's State Park – at NJTransit R.R. track crossing



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

## 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**



## **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 10<sup>th</sup> 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.









## STATUS MEETING

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

	TOIC .	SIGN IN SHEET	
NAME	AFFILIATION	PHONENUMBER	EMAIL ADDRESS
Dence dalunha	NVS/RBA	973 946 5'62V	Drove dalinter e NYS Com
Charlie Cocian	NV5/REA	9139465623	Chres. was NYS. con
New Takento	MOT	973-491-090D	ATGHERENKO @ metolivetup.
Paridio Tomosal	Cinspland Motonship	913-691-0900	Ctomasello @ or
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	PAGE





## **Appendix F: Public Outreach Summary**



## 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 opportun ty 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

(>)







NJDOT Bicycle and Pedestrian Planning Assistance









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.

Foot	note #1 on map board. Develop a conceter side of trode center mall to entrance
of +	ade conter. Route behind Wolmort
	Applobres down to Route 46, and then trade center on north side of 46
	existing pedestion light/butlons).
_	Thonks





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.

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Cab	go or and	enjoy bring extende Thy
نويند	sund Foblus	to as very long. A treat
like	a materia	ll or a visto at whole a pile
يرداي	Wer monde	rhul
		9-70 - 00140000



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.

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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.

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highs	chool.		_	1
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Your input today is key in the development of the township's Bicycle and Pedestrian Plan!

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трис	vensini	50 4	Public Settions	artra, hyp.			





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 Studen's welk in streets nother than
Sidewalks
Police officers tell them to use sidewalk
· Braille Trail needs signage - how to get there
Trails need mile markers So usen can track their distance
Need trail head markers
· Need direct access from Cakmood Village to walk or bike of fa
(marked on board w/ #3)
CONTRACTOR CONTRACTOR OF CONTR

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





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.

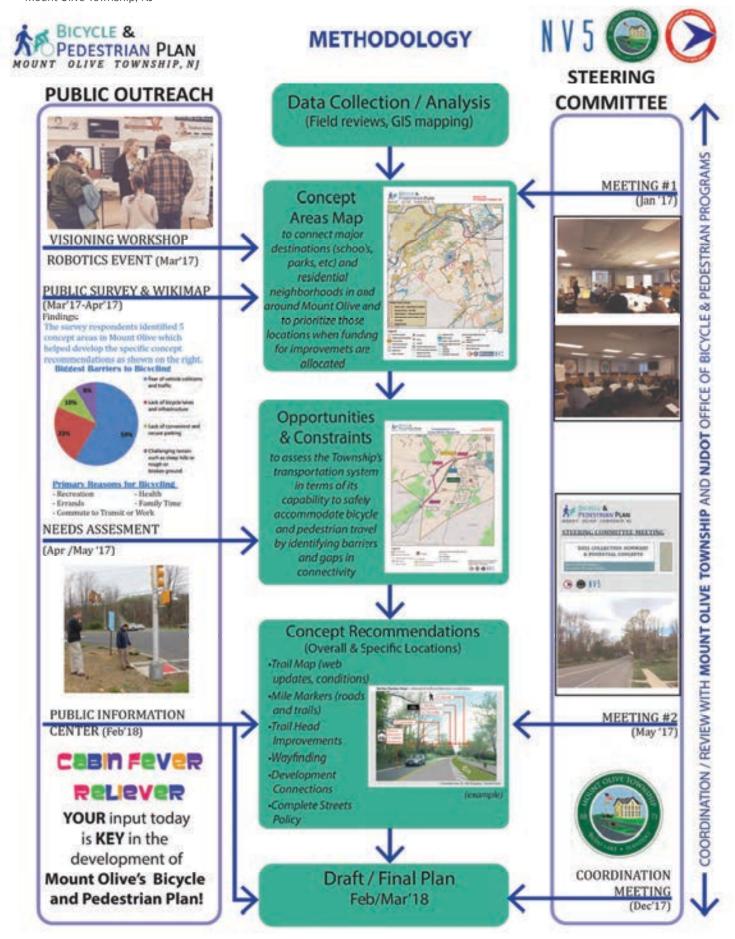
100	is named	/ Drakesto	un Rd	
	neighborh can't Bush		nust cut	£hrong

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

NV5









#### MOUNT OLIVE TOWNSHIP MOUNT OLIVE TOWNSHIP BICYCLE & PEDESTRIAN PLAN BICYCLE & PEDESTRIAN PLAN

Study Recommendations



#### **Appendix G: Public Survey Summary**

# 2017 Mount Olive Bicycle and Pedestrian Plan Survey

Tuesday, April 11, 2017

143

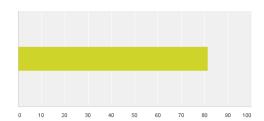
**Total Responses** 

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



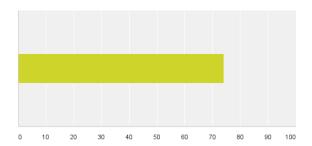
Q2: How important is it to you to improve conditions for walking in Mount Olive?

Answered: 139 Skipped: 4

Answer Clumes	Average Standard		Fetal Banker	Personne	
		m	11,304		129
Total Respondents: 131					

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

Answered: 137 Skipped: 6



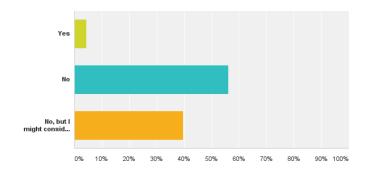
### Q3: How important is it to you to improve conditions for bicycling in Mount Olive?

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)?

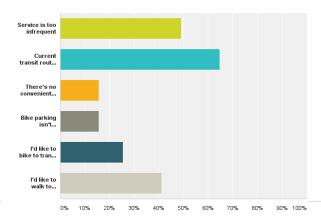
Answered: 139 Skipped: 4



Mount Olive Township, NJ

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

Answered: 51 Skipped: 92



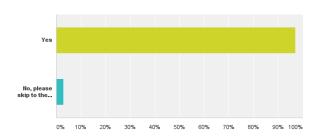
### currently inconvenient about using public transportation in Mount Olive. Check all that apply.

Answered: 51 Skipped: 92

Inner Christen	Respons	-
Service is the infrequent	48.85%	26
Current trained routes stant take one where I need to go anothe are too obsultance	64295	11
There's no convenies palony for my car max transf.	95.89%	,
Site parking and convenently located and/or adequate	16.69%	
Ad the to take to based but I don't had the things in a safe route.	25,805	10
Till the for well the framed, and I short there there as a sade synder.	81.88%	#
olal Propositionis: SI		

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

Answered: 135 Skipped: 8



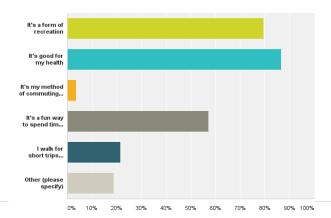
#### Q7: Are you willing to answer some questions about pedestrian issues in Mount Olive?

Answered: 135 Skipped: 8

Arment Choices	Tesponnes	
(HE	27.44%	131
No, phone stip to the rood section of the tap vey	2,96%	
tina		131

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

Answered: 112 Skipped: 31



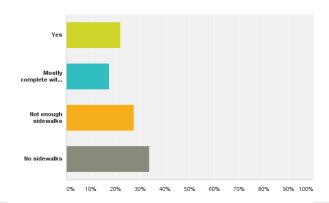
### Q8: What are your primary reasons for walking in Mount Olive? (please check all that apply)

Answered: 112 Skipped: 31

Answer Choices	Responses	
The first of expension	79.40%	.00
Ex good for my health	86,67%	87
Ex my method of commuting (to most or transit)	SAPS	
It's a fair way to spend line with hand, and frends	67,64%	94
( with the about titps (above, ecosysts)	25.47%	24
Other Schools Navidy)	18,75%	- 21
Intal Respondentic 112		

#### Q9: Is the sidewalk network near your home complete?

Answered: 110 Skipped: 33



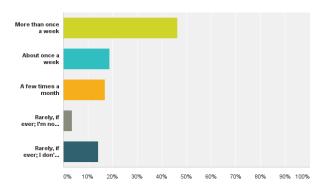
#### Q9: Is the sidewalk network near your home complete?

Answered: 110 Skipped: 33

Annexes Chaines	Responses	
(es.	HAIS	.34
Mostly complete with some graph	17,27%	
Not enough midewake	2121%	
(Ac polyments	maes	37
letel		2,910

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

Answered: 112 Skipped: 31



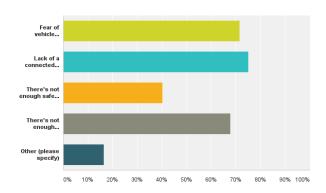
### Q10: How frequently do you walk in Mount Olive (weather permitting)?

Answered: 112 Skipped: 31

Accesser Chainers	Responses	
Her flat ovce a nest	6.0%	- 11
About secu a most	9620%	. 19
A Street Street or country	MANUE.	79
Payoly, if ever, the not interested	MPS	4
Parety of every I don't think the scale	5429%	
total .		917

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

Answered: 109 Skipped: 34



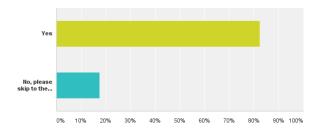
### Q12: What do you think the biggest challenges are for pedestrians in Mount Olive? (please check all that apply)

Answered: 109 Skipped: 34

Accessor Choices	Persponen	. 01
Year of estable colleges and traffic	21.66%	- 31
Last of a convented solowell reduced	1629%	-
There's not enough such sheet coolings	46,37%	4
There's not enough connections to paris, traits, and connectly destinations	67.87%	- 34
Officer (planeted signification)	168%	
Total Frequenciation 187		

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

Answered: 114 Skipped: 29



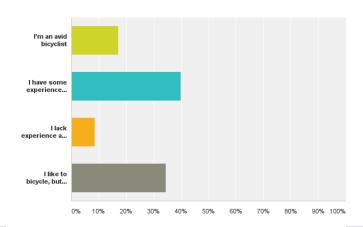
### Q15: Are you willing to answer a few short questions about bicycling in Mount Olive?

Answered: 114 Skipped: 29

Answer Choices	Responses
Yes	82.40% (4
No, please stip to the rest section of the survey	18.64% 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.

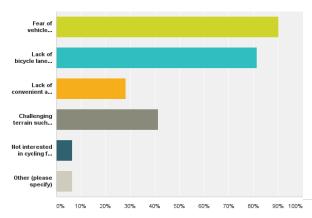
Answered: 93 Skipped: 50



Mount Olive Township, NJ -

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

Answered: 92 Skipped: 51



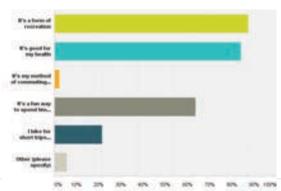
### Q17: What do you think the biggest barrier is to bicycling in Mount Olive? (Please check all that apply)

Answered: 92 Skipped: 51

Annexe Chaines	Response	٠
Year of vehicle colleges and traffic	94.27%	. 13
Last of http://citizens.com/or/metrochare.	81,57%	71
Link of convenent and secure parting	36.26%	24
Challenging terrain such as steep tilts or rough in troken ground	et.ten.	. 36
And where existed the cycling flor transportation on reconstitute.	6.52%	- 5
Other Salvania Nancify)	6,62%	-
lotal Respondentic SF		

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

Answered: 88 Skipped: 55



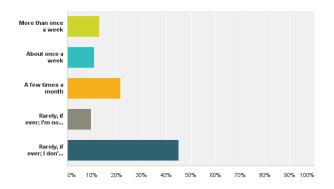
### Q18: What are your primary reasons for bicycling in Mount Olive? (Please check all that apply)

Answered: 88 Skipped: 55

Accessed Challents	Acapemen	
The first of security	60,68%	.17
E) good for my health	BL89%	.74
Ex my method of commuting the most or transat)	3,87%	-
It's a fun way to spend her with family and framily	63,69%	16
(take for short tips (others, emands)	25.07%	. 31
Other (please specify)	6,68%	- 1
Total Perspendentis: III		

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

Answered: 93 Skipped: 50



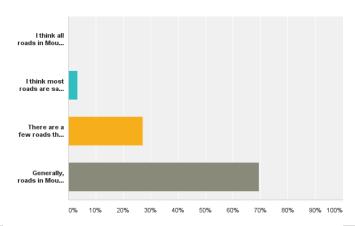
#### Q19: How frequently do you bicycle (on streets) in Mount Olive?

Answered: 93 Skipped: 50

Inower Chotcee	Responses	
More than once a week	10,98%	12
About snow a week	96,78%	10
A few firms a results	26.61%	
Flanky, if ever, forms elemented	BAPS.	
Parety, if ever, I stort three it's name	46.16%	40
old		93

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

Answered: 92 Skipped: 51



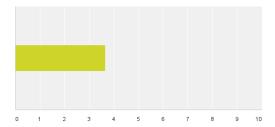
### Q21: Can you tell us how safe you think streets in Mount Olive are for bicycling?

Answered: 92 Skipped: 51

Answer Choices	Responses
I think of roads in Mount Olive are sufe for bicycling	4.89% 0
Their root roots are safe to Doycing in House Olive	3.N% 3
There are a few roads that aren't safe for bicycling in Mount Olive	27,82% 25
Generally, roads in Mount Olive search safe for bicycling	66.67% DI
Total	52

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

Answered: 83 Skipped: 60



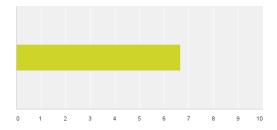
### Q23: How comfortable would you feel riding on a street with no bicycle facility (pictured below)?

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



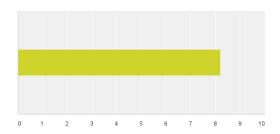
#### Q24: How comfortable would you feel riding on a bike lane (pictured below)?

Answered: 81 Skipped: 62

Accesse Cholcon	Average thanber	Total Bandon		Responses	
		9	109		11
Total Respondence 81					

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

Answered: 85 Skipped: 58



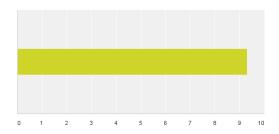
### Q25: How comfortable would you feel riding on a protected bike lane (pictured below)?

Answered: 85 Skipped: 58

Answer Chalcon	Average Burnber		Total Barelon	Bespesses	
		. 1	10		11
Total Respondence III					

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

Answered: 85 Skipped: 58



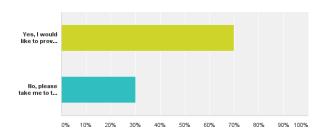
### Q26: How comfortable would you feel riding on a separated paved multi-use path (pictured below)?

Answered: 85 Skipped: 58

Accesses Charleson	Average Stander	Total Burelow		Perpenses.	
			792		11
Total Respondenter 81					

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

Answered: 103 Skipped: 40



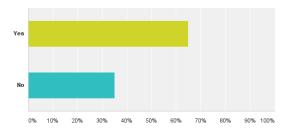
indicate whether you would like to take part in this part of the survey or skip to the next section.

Answered: 103 Skipped: 40



#### Q28: Do you have school age children?

Answered: 74 Skipped: 69



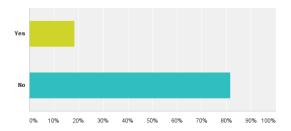
#### Q28: Do you have school age children?

Answered: 74 Skipped: 69

Accesser Challen	Responses	
(m.	448%	Att
to .	35.845	
tina		. 14

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

Answered: 49 Skipped: 94



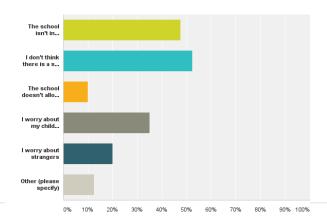
#### Q29: Do you have children who walk to school in Mount Olive?

Answered: 49 Skipped: 94

Answer Chaines	Responses		
(HL	9637%		
No.	PLAPS.	- 0	
Total			

### 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



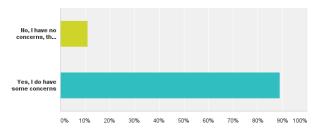
### Q30: You said you had children but they don't walk to school. Can you tell us why? Please check all reasons that apply.

Answered: 40 Skipped: 103

Accessor Chailcon	Responses	
The school lart in waiting distance	45,00%	- 31
I don't find there is a safe rade for there is walk	52,69%	. 29
The school should allow 8	16,86%	-
I wron't about my child crossing the street	36.86%	. 16
(work) alload alterigens	26,66%	
Other Street Marchy)	52,665	-
Intal Perspendentic 66		

### 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



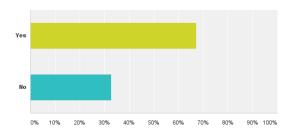
### Q31: You said you have children who walk to school in Mount Olive. Do you have any concerns about their walking route?

Answered: 9 Skipped: 134

Answer Choices	Responses	
No. There is concern, they have a safe and confurbing male.	11.07%	+
Ves. I do have some concerns	86,85%	
tina		

#### Q34: Do you have school age children?

Answered: 73 Skipped: 70



#### Q34: Do you have school age children?

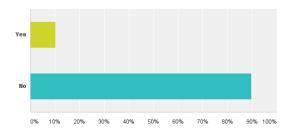
Answered: 73 Skipped: 70

Answer Christian	Empirore	
(HL	60.0%	At
No.	30.88%	
tina		ti.

Mount Olive Township, NJ

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

Answered: 49 Skipped: 94



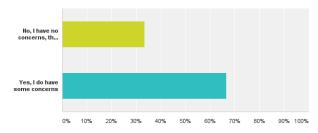
#### Q35: Do you have children who bike to school in Mount Olive?

Answered: 49 Skipped: 94

Answer Choices	Responses	
(95.	96,9%	
to .	MAPS.	**
tina		

### 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



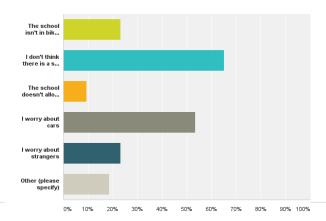
### Q36: You said you have children who bike to school in Mount Olive. Do you have any concerns about their cycling route?

Answered: 6 Skipped: 137

Accessed Challens	Responses	٠.
No, there no concerns, they have a safe and confuration route.	30.87%	2
Ves. I do have some concerns	86.67%	
Tetal		

### 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



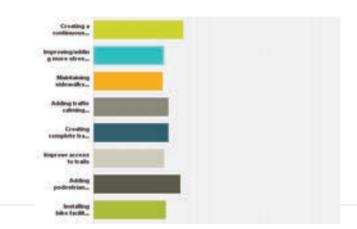
### Q37: You said you had children but they don't bike to school. Can you tell us why? Please check all reasons that apply.

Answered: 43 Skipped: 100



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

Answered: 70 Skipped: 73



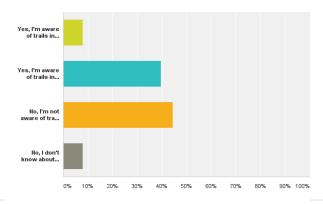
### from schools? Select the top five issues in order of importance, 1 being the most important.

Answered: 70 Skipped: 73

	Printity	Printly 2	Priority 1	Priority 4	Privity E	Total	Minight and Assertage
Creating a posteriorial polariorial reduces additivitie Township	HAPS 20	16395	MPS	HAPS.	16.87%	96	(200
Ingroving fielding more street types	17,39%	34165	18,58%	HIP	SEREN	29	216
Mantaining side-analis (cracks, det, delate, etc.)	11.39%	HARS	16,79%	PARS.	20.405	*	34
Adding traffic calcular meloures to store refrouter speeds	PAIRS	18,82%	16,675	TLOTS.	MAPS	21	38
Creating complete trail networks	STAPS	BAPS (2	26.0%	26.61%	16.00%	34	.00
Angelore access	19,71%	25.42%	27,14%	15,00%	65,86%	26	39

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

Answered: 101 Skipped: 42



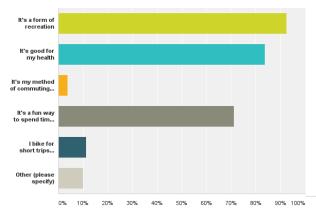
#### Q41: Are you aware of the trails located in Mount Olive?

Answered: 101 Skipped: 42

Annese Choices	Respon	***
Fee. In some of take p. We community Just are not ready executed in failing about take.  Peace take on to the read section of the survey.	7.00%	
Yes, he aware of trade in the commands and an ording to answer in few gardines about trade or those Gives	35,68%	40
No. The next senses of trade in Mount (Sive, but hillberts learn doors, and dood mind to ying to accover questions about 1986.	44.69%	40
As a blain's know about hade in bloom Olive and he madly not blee extent. Please have me for the dead section of the security.	TAPS.	
intal .		101

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

Answered: 80 Skipped: 63



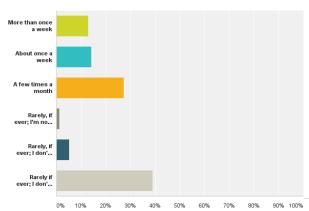
### Q43: What are your primary reasons for using trails in Mount Olive? (please check all that apply)

Answered: 80 Skipped: 63

Accessor Chailcon	Responses	
This firm of expension	10.6F%	
V); good for my health	80.79%	67
Ex my method of commuting (to most or transit)	3,9%	-
It's a fee way to spendifuse with family and friends	14.19%	197
(take for short tigo (others, ements)	15,29%	
Other (please specify)	16,00%	-
Total Perspendentis: 88		

#### 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?

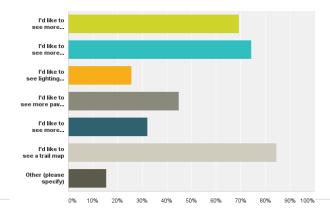
Answered: 77 Skipped: 66

Accessor Chaines	Response	0
Here than ance a most	50,89%	- 10
About secons week	6429%	11
A first from a country	25.55%	. 21
Planty if ever, former interested	sues.	+
Foreign Ferrer, I don't think the sade	5,00%	
The ety (Cener, 1-land) reals, honey about that's inchance. Ohio	36.96%	- 16
Total		37

Mount Olive Township, NJ

#### 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



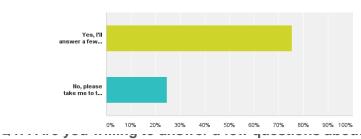
don't think it's safe. What type of improvements would you like to see to trails in Mount Olive? (Please check all that apply)

Answered: 78 Skipped: 65



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

Answered: 81 Skipped: 62



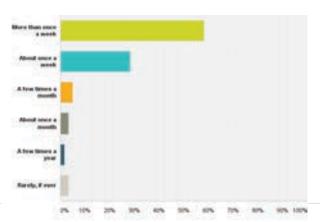
transportation access to the stores/businesses located in the vicinity of Route 206 and Flanders Bartley Road (CR613)?

Answered: 81 Skipped: 62

Arrayor Chalcon	Fesporaes	
(es, filament a few questions	7631%	- RF
No photo take no to the next section	26,0%	. 28
final		- 21

### 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



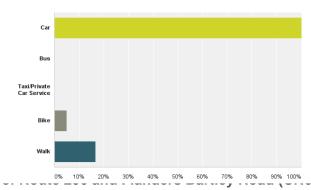
Q48: How often do you visit the stores/businesses located in the vicinity of Route 206 and Flanders Bartley Road (CR613)

Answered: 60 Skipped: 83

Accessor Chailcon	Bespesses	
Here than secon a most	94,30%	. 10
About secret week	2630%	- 17
A fire from a conft.	LAPS	,
About prox a numb	3.39%	- 1
A first firms a year	1476	1.
Tanto, Ferre	2,10%	-
Total .		44

### 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.

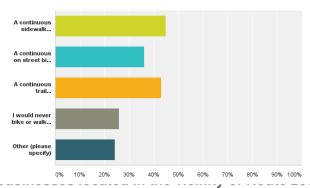
Answered: 60 Skipped: 83

Bespenses	
100.00%	
KMS.	
0,00%	
EMPS.	
1647%	10
	MAPS ANDS ANDS ANDS ANDS

Mount Olive Township, NJ

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

Answered: 58 Skipped: 85



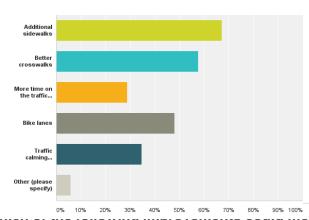
### Flanders Bartley Road (CR 613) if the following improvements were made? Please check all that apply.

Answered: 58 Skipped: 85

Annese Choices	Fierspere	100
A continuous someoni inading to the attractious recess	46875	24
A continues on short like facility, such as a bid a text, teating to the stores businesses	3625	21
A continuous trial sequestrollisation at from the conducty leading to the stores businesses	40,16%	21
I would never bile or wall to this area under any cocumulance	HAY	11
Office (pleases specify)	24181	71
Intel Respondents: 18		

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

Answered: 52 Skipped: 91



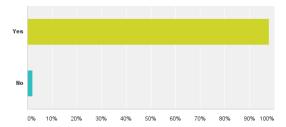
### safe and enjoyable access to/from this area? Please check all that apply.

Answered: 52 Skipped: 91

Accesser Chainers	Response	
Additional independent	67,39%	. 31
Defer processing	\$7,66%	30
More this on the traffic algority cross the cood as a pollution	36,80%	11
Disc tower	40.00%	26
Staffic calleng income to place buffic.	3462%	- 11
Other (photos specify)	S.PP.	- 1
Total Perspondentis: SZ		

#### Q52: Have you visited Turkey Brook Park?

Answered: 97 Skipped: 46



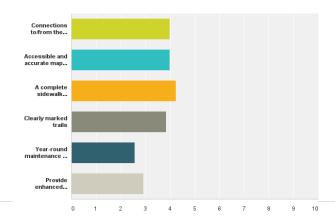
#### Q52: Have you visited Turkey Brook Park?

Answered: 97 Skipped: 46

Accesses Challens	Responses	
(m.	\$1.54%	26
No.	2,46%	
tina		. 17

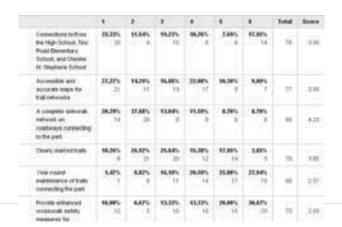
### Q53: You said you've visited Turkey Brook Park. Please rank the following park needs in their order of importance to you.

Answered: 91 Skipped: 52



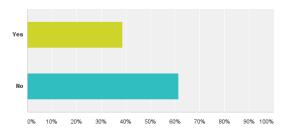
### Q53: You said you've visited Turkey Brook Park. Please rank the following park needs in their order of importance to you.

Answered: 91 Skipped: 52



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

Answered: 93 Skipped: 50



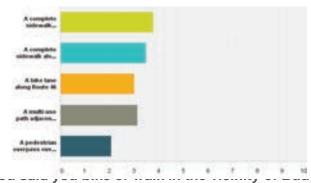
Q54: Do you walk and/or bike in the vicinity of Budd Lake?

Answered: 93 Skipped: 50

Accesser Chainman	Responses	
(in	38.21%	.30
No.	40%	17
Send		. 99

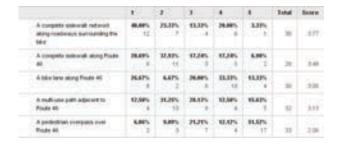
you please think about the following list of potential improvements and rank them in their order of importance to you?

Answered: 36 Skipped: 107



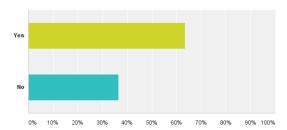
you please think about the following list of potential improvements and rank them in their order of importance to you?

Answered: 36 Skipped: 107



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

Answered: 93 Skipped: 50



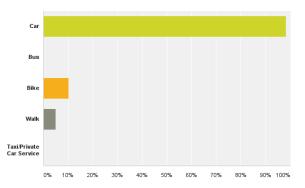
#### Q56: Do you work within or visit the International Trade Center (ITC) area?

Answered: 93 Skipped: 50

Answer Christian	Responses	
(HL	63.4%	.50
No.	36.0%	34
Total		99

Center Area (ITC). What mode(s) of transportation do you use to get there? Please check all that apply.

Answered: 59 Skipped: 84



Center Area (ITC). What mode(s) of transportation do you use to get there? Please check all that apply.

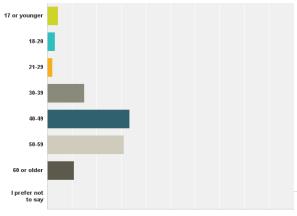
Answered: 59 Skipped: 84



Mount Olive Township, NJ -

#### Q59: What is your age?

Answered: 93 Skipped: 50



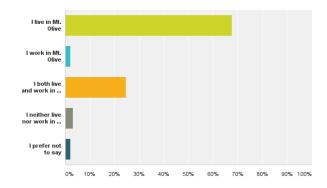
#### Q59: What is your age?

Answered: 93 Skipped: 50

Arrawar Chairen	Bespeece	
17 in yearque	438%	
19-20	3295	
2149	2.0%	-
30.30	16,80%	34
40.49	30,32%	(3)
10.00	36.0%	. 28
40 or side	1675%	10
Appendix roof for easy	8,89%	
fold		41

#### 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

Accessor Chainers	Bespesses	
The Will Ober	47.74%	10
Level HIM. Obve	1.00%	- 1
Hoth live and work in M. Olive	PLIFE	
I netter the nor work in lift. Other	1295	1
Epoyster rold to sale;	JARS	3
total .		80

Diamela	0 Da		Diam
Bicycle	& Pei	nestrian	Plan

#### **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

Denice daCunha, Charlie Cunion, NV5

June 1, 2017 Date:

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.

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**

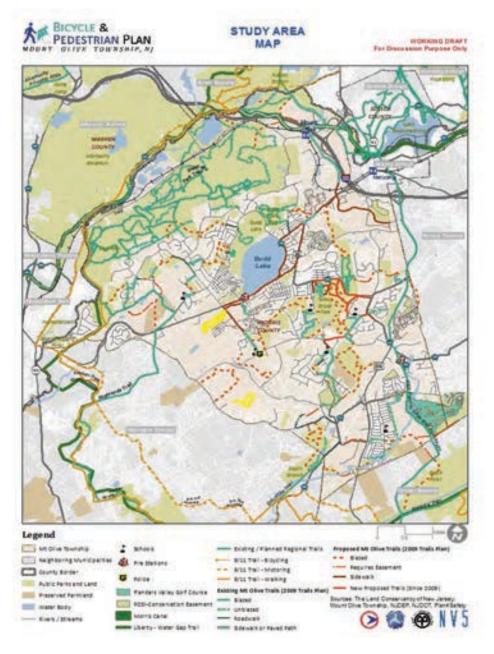
The population of the township was estimated to be 28,682 by the U.S. Census Bureau's 2015 American Community Survey (ACS). Of Mount Olive's working population, the following three industries lead the township's labor force with roughly 20 percent are educational services, health care, and social assistance; 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.

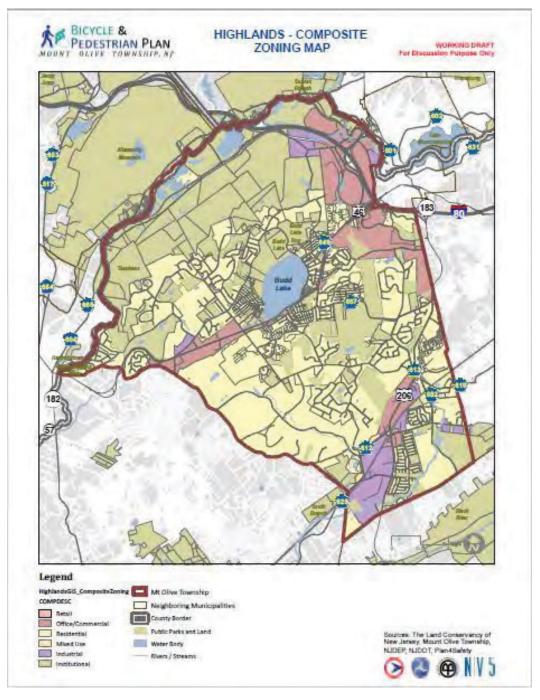
As *Table 1* indicates, the common form of commuting to work is driving alone, at a rate slightly higher than the state, county, or national figures. Data shows that Mount Olive residents do not commute via bicycle and a small share report walking to work.

Map 1: Study Area Map





Map 2: Highlands-Composite Zoning Map



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

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 Plan4Safety¹ 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.

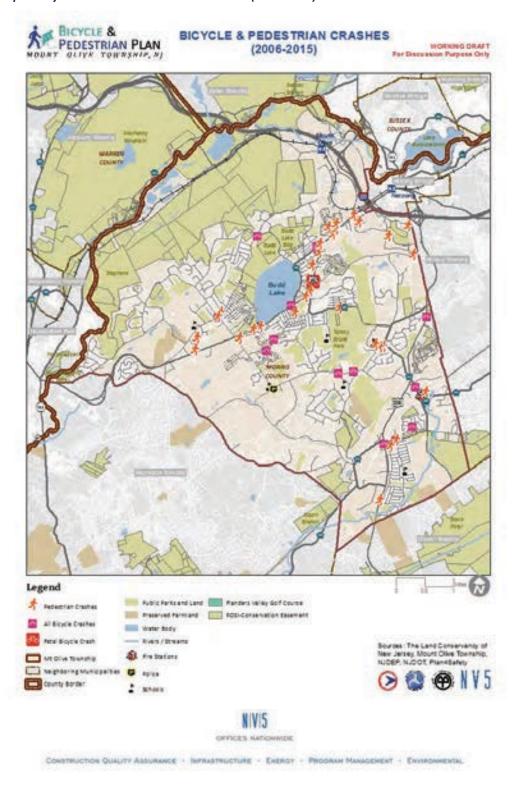
#### Location & calendar of bicycle and pedestrian crashes

- Locations with multiple crashes include:
  - o 4 pedestrian crashes occurred on Route 46
  - o 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%)

<sup>&</sup>lt;sup>1</sup> 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)



#### **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:
  - o Route 46
  - o Route 206
  - o Sand Shore Road
  - o Flanders-Bartley Road
  - o 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 /	Wolfe Rd &				
	Area of	Route 46				
	Concern					3-Mar-17
2	Barriers /	Manor				
	Area of	House Rd &				
	Concern	Route 46				3-Mar-17
3		Route 206,				
	Barriers /	Route 206				
	Area of	Shopping				
	Concern	Center				3-Mar-17
4			Road is unsafe for			
			walking. Would			
			like to walk to St			
	Barriers /		Elizabeth's church			
	Area of		but cannot get			
	Concern		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	Rd,			
	Concern	Naughright			
		Rd, Route			
		46			
7		Route 612,			
		Bartley-			
	Barriers /	Flanders			
	Area of	Road, Route			
	Concern	206			3-Mar-17
8		Route 206,		1	
	Barriers /	Route 206			
	Area of	Shopping			
	Concern	Center			3-Mar-17
9		Route 46,		1	
	Bicycling	near 7-			
10	Destination	Eleven			3-Mar-17
10	Bicycling	Aldersgate Circle			2 Mar 17
11	Destination Bicycling	Link Road			3-Mar-17
11	Destination	LITIK KOdu			3-Mar-17
12	Route I		High Point to Cape		3 14141 17
12	Bike On		May Bike Route		7-Mar-17
13	Route I		High Point to Cape		
	Bike On		May Bike Route		7-Mar-17
14	Route I		High Point to Cape		
	Bike On		May Bike Route		7-Mar-17
15	Route I		High Point to Cape		
	Bike On		May Bike Route		7-Mar-17
16	Route I	Mountain			2.14 47
17	Bike On	Avenue			3-Mar-17
17	Route I Walk On		Clover Hill Loop		3-Mar-17
18	Route I		Clover Hill to		3-ividi-17
10	Walk On		Flanders Park		3-Mar-17
19		Ledgewood			2
		Road,			
		Fairmount			
	Route I	Road, Falcon			
	Walk On	Road			3-Mar-17
20		Manor			
		House			
	Route I	Road, Pine			
	Walk On	Grove Road,			3-Mar-17



			ı	
		Taboggan		
		Hill Road,		
		Clearwater		
		Road		
21	Route I	Clearwater		3-Mar-17
	Walk On	Road		
22	Route I	Noud		3-Mar-17
22				3-IVIdI-17
	WANT To			
	Bike On			
23			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	
	Route I		not marked for	
	WANT To		pedestrian or bike	
	Walk On		traffic.	3-Mar-17
24		Smithtown		
2.				
		Road, Sand		
		Shore Road,		
		through		
		Bog, cont.		
		Sand Shore		
	Route I	Road, Route		
	WANT To	46, Budd		
	Walk On	Lake Beach		3-Mar-17
25	Route I		From Clover Hill	
	WANT To		development to	
	Walk On		Rita's	3-Mar-17
26	Walk Off		Clover Hill	3-IVIAI-17
26				
			development to	
			Weis.	
			This small part of	
			the route is	
			awkward, without	
	Route I		markings, and feels	
	WANT To		unsafe with small	
				2.14 47
	Walk On		children.	3-Mar-17
27	Route I		Clover Hill	
	WANT To		development to	3-Mar-17



	Walk On		Columbia Trail	
• •			head	
28	Route I	Clearwater		
	WANT To	Road, Sand		
	Walk On	Shore Road		3-Mar-17
29	Route I		Sidewalks/seasonal	
	WANT To		trail from TBP to	
	Walk On		High School	11-Mar-17
<i>30</i>	Route I		Turkey Brook Park	
	WANT To		to Drakes Brook	
	Walk On		Park	11-Mar-17
31			Netcong Train	
			Station/Rte.46	
			Netcong through	
			Stanhope to Braille	
			Trail/ Morris Canal,	
	Route I		then north to	
	WANT To		Sussex Branch	44.0447
22	Walk On		Trail.	11-Mar-17
32			Morris	
	Doute I		Canal/Braille Trail	
	Route I WANT To		west along Morris	
	Walk On		canal path to Waterloo Village	11-Mar-17
33	Walk Oil		TBP and school	11-IVId1-17
33			through open	
			space,	
			neighborhood,	
			cross Mt. Olive rd.	
	Route I		through woods	
	WANT To		and open space to	
	Walk On		Municipal Bdg.	11-Mar-17
34			From state land to	-
			Camelot Park,	
			Alcrest Drive,	
	Route I		Camelot Dr.,	
	WANT To		connect back to	
	Walk On		state land	11-Mar-17
35			Drakes Brook to	
	Route I		existing TB trails,	
	WANT To		also north to mall	
	Walk On		area.	11-Mar-17
36	Route I		trail across public	
	WANT To		land from apt	16-Mar-17



	Walk On	complex to	
	Walk Off	I	
27		townhall/library	
37		nice walk across	
		Silver Spring	
		Manor parcel, to	
		ridge overlooking	
		Rt 206 & Flanders	
		Valley, maybe	
		down hill to Rt 206	
		as well from there	
	Route I	to parking area	
	WANT To	opposite the pool	
	Walk On	shop	16-Mar-17
38		hiking trail across	
	Route I	open space parcel	
	WANT To	and by the pond	
	Walk On	on that property	16-Mar-17
39		trail connecting	
		Chester M	
		Stephens to Kings	
	Route I	Village apts	
	WANT To	through Sun Valley	
	Walk On	parcel	16-Mar-17
40		it would be	
		amazing to be able	
		to safely walk on	
		River Road, though	
	Route I	I cannot think of a	
	WANT To	way to make it	
	Walk On	possible to do so	16-Mar-17
41		clearly marked trail	
	Route I	to Veterans Park in	
	WANT To	Roxbury from	
	Walk On	Oakwood Village	16-Mar-17
42		I hope the town	
	Route I	can help acquire	
	WANT To	open space along	
	Walk On	the river.	16-Mar-17
43		It would be great if	10 17101 17
13		the town would	
		acquire the old mill	
	Route I	at the intersection	
	WANT To	of Flanders-	
	Walk On	Drakestown Road	17-Mar-17
	vvalk OII	Diakestowii Rodu	17-1011-17



		T	I	 	
			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		Naughright			
-7-7					
		Road, Sand			
	Walking	Shore Road,			
	Destination	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	Budd Lake			
	Destination	Beach			3-Mar-17
49	Destination				3-IVIAI-17
49		Mount			
	Walking	Olive High			
	Destination	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



Bicycle & Pedestrian Pla	
	ın

## **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:

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

- The detrimental environmental or social impacts shall not outweigh the need for these accommodations.
- 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 Council at a duly convened meeting held on	f a resolution passed by the Mount Olive Township
	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 Developm	ent Checklist Consid	leration	YES	ON	N/A		s/ Explanation of s being Addressed
Context	What is the existing roadway cross-section and speed limit?							
Con	What is the street type (refer Streets Typology)? What is the	to Mount Olive Complete ne AADT?						
	Is the project in a school zon	e, truck route, historic dis	strict, 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?							
mmodations	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?							
Acco	Is the proposed design compatible with land use and density within the project area, including any special zoning districts?							
Proposed Complete Streets Accommodations	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	Pedestria countdown si			☐ Sig	ns	Shared lane markings
	Curb extensions	Pedestrian scale	☐ Bike Lane	es		☐ Bik	e compatible ers	☐ 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) Complete Occumentation for concurrence. If NO, forward checklist to CSI any factors or circumstances exempting this project from Complete Streets Implementation (CSI) Complete Streets Implementation (CSI	Committee with d	locumentation of	
CSI Committee Concurrence and Disposition:  Note: The CSI Committee must document its concurrence with is being sought, concur with the exemption before the project committee may determine what additions or changes to the project advance to implementation.	ect 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
maintenance of is in accordan	maintenance work, including providing for of the traffic (as needed), accommodates all users and ce with Complete Streets principles.		
concurrence.	d to Complete Streets Implementation (CSI) Committee v If NO, forward checklist to CSI Committee with docume sproject from Complete Streets policy compliance.		
CSI Committ	ee Concurrence and Disposition:		
is being sought	committee must document its concurrence with the State , concur with the exemption before the project can a determine what additions or changes to the project must ementation.	advance to implemer	ntation. The CS
Signature:	Dat	e:	
Print Name:			
Signature:	Dat	e:	
Print Name:			
Signature:	Dat	e:	
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					0N	N/A	Comments
Context	Are there existing accommodations for bicyclists, pedestrians (including ADA) and transit users traveling on, along or across the existing facility?							
Co	Are there planning documents conditions or needs proximat	s that address bicycle, peo e to the proposed resurfac	destrian or transit user sing area?					
	Does the current facility comp	ply with ADA requirements	for non-motorized trave	?				
	Is there a high incidence of bi	icycle or pedestrian crasho	es within the project limit	s?				
	Have bicycle and pedestrian of	considerations been inden	tified with the project lim	its?				
	Are there existing transit facili	ities within project limits (	stops, stations, etc.)?					
	Are there bicycle racks, shelte adjacent to the project?	ers, or bike lockers availab	ole at existing land uses					
	Are there street trees, planters, buffer strips or other environmental enhancements?							
ions	Does the proposed design accommodate bicycle travel along and across the facility?							
modati	Does the proposed design accommodate pedestrians travel along and across the facility, including ADA compliance?							
Accommodations	Does the proposed design accommodate transit users in coordintation with the relevant transit authority?							
Proposed	Does the proposed design protect and preserve landscaping, street trees, planters, buffer strips, or other environmental enhancements?							
Prop	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.							ill be included.
	Accessible sidewalk curb ramps	☐ Crosswalks	☐ Pedestrian Countdown Signals	☐ Sig	ıns			Shared lane markings
	☐ Curb extensions	Pedestrian scale lighting	☐ Pedestrian scale ☐ Rike Lanes ☐ Bike					☐ 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:					
is C	Note: The CSI Committee must document its concurrence with the Statemes being sought, concur with the exemption before the project can ad Committee may determine what additions or changes to the project must be advance to implementation.	vance to implem	entation. The CSI			
S	Signature: Date:					
F	Print Name:					
S	Signature: Date:					
F	Print Name:					
S	Signature: Date:					
F	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	МО	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	YES	NO
Statement of Compliance The Construction Traffic Plan accommodates all users.		
The construction Trainer lair accommodates an accis.		
Signature:		
If YES, forward to Complete Streets Implementation (CSI) Committee with a concurrence. If NO, forward checklist to CSI Committee with documentation this project from Complete Streets policy compliance.		
CSI Committee Concurrence and Disposition:		
Note: The CSI Committee must document its concurrence with the St is being sought, concur with the exemption before the project of Committee may determine what additions or changes to the project of advance to implementation.	an advance to implen	nentation. The CSI
Signature: I	Date:	
Print Name:		
Signature: I	Date:	
Print Name:		
Signature:	Date:	
Print Name:		

	-		
Ricycla	ĸ,	Pedestrian F	วเวท

# **Appendix K: Implementation Matrix/ Typical Costs**

Complete	Streets Im	plementation M	atrix/ 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	Α.	\$50/ LF	Shared Property Owner	Short
	В.	\$500-1,500	DPW	Long
Pedestrian-Sca	I le 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 cir	cles	\$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 ref	uge islands	\$5,000-10,000	DPW	Mid
RRFB (Flashing warning lights)		\$5,000	DPW	Short
In-Street Cross	sing 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:

 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).

- Scenic or historic highway programs including the provision of tourist and welcome center facilities as well as scenic turnouts, overlooks and viewing areas.
- 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).
- Environmental mitigation to address water pollution due to highway runoff or reduce vehiclecaused 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 <a href="http://www.state.nj.us/transportation/business/localaid/alternatives.shtm">http://www.state.nj.us/transportation/business/localaid/alternatives.shtm</a>

## 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 <a href="www.state.nj.us/transportation/business/localaid/srts.shtm">www.state.nj.us/transportation/business/localaid/srts.shtm</a> or <a href="http://www.njtpa.org/project-programs/project-development/safe-routes-to-school.aspx">http://www.njtpa.org/project-programs/project-development/safe-routes-to-school.aspx</a>

#### **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, <a href="www.nj.gov/dep/parksandforests/">www.nj.gov/dep/parksandforests/</a> <a href="mailto:natural/trail\_grants.htm">natural/trail\_grants.htm</a>

#### **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 <a href="https://www.state.nj.us/transportation/business/localaid/municaid.shtm">www.state.nj.us/transportation/business/localaid/municaid.shtm</a>

#### **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 <a href="https://www.state.nj.us/transportation/business/localaid/bikewaysf.shtm">www.state.nj.us/transportation/business/localaid/bikewaysf.shtm</a>

#### 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 <a href="www.state.nj.us/transportation/business/localaid/safe.shtm">www.state.nj.us/transportation/business/localaid/safe.shtm</a>

# 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. <a href="https://www.sustainablejersey.com/grants-resources/sustainable-jerseysmall-grants-program/">www.sustainable-jerseysmall-grants-program/</a>

#### **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. <a href="http://www.peopleforbikes.org/pages/community-grants">http://www.peopleforbikes.org/pages/community-grants</a>

#### 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. <a href="www.rwjf.org/en/how-we-work/grants.html">www.rwjf.org/en/how-we-work/grants.html</a>

#### 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.