

UPPER MACUNGIE TOWNSHIP

Trail Connectivity & Walkability Plan

Please note this presentation is being recorded.
During the presentation feel free to type questions in the Q&A box. We will answer question during the Q&A session after the presentation.

Public Meeting #1 – February 22, 2022

Agenda

1. Team Introduction
2. Project Scope
3. Project Schedule
4. Study Area
5. Data & Inventory
6. Trails 101 – users, design guidelines
7. Improvement Toolbox
8. Public input
9. Next Steps
10. Discussion

Project Consultants

Simone Collins Landscape Architecture

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Project Committee

Jenna Azar	
Anitha Baru	Youth Association
Michael Beidler	Youth coach
Janet Bushinsky	Hiking, nature, birding, land naturalization
Byron Cook	Avid cyclist and walker
Steve Crampton	Avid cycling and hiker
Courtney David	Distance runner; avid user of trails
Amir Famili	Soccer Coach
Karen Fitzpatrick	
Kevin Frank	Hiking and photography
Kerri Green	
John Helffrich	Bicycling
Tim Helmer	UMT Planning Commission
Scott Johnson	
Suresh Jonnalagadda	
Matthew Joseph	Walking and running
Craig Kauffman	Avid hiking, backpacking; Boy Scouts
Thomas Male	Avid hiker and bicycler
Mandy Marquardt	Bicycling
Gwen McCurdy	Avid runner/walker - Lehigh Valley Road Runners
Paul McNemar	UMT Planning Commission; Firefighter
Gail Micca	Cycling, youth fitness
Tricia Mohr	Running, walking, biking
Abigail Pasterski	Trail user
Bradley Reese	Outdoor enthusiast
Meg Schlauch	Walking
Yvonne Schweighardt	Park Development
Janet Shultz	Walk 4+ miles every day
Lora Spangler	
Christopher Strohler	
Christopher Svetcov	Passion for hiking and the outdoors
Jennine Thomas	

Simone Collins Philosophy

Simone Collins Landscape Architecture is a planning and design firm committed to creating an ecologically enduring society.



Conduct careful research.



Respect ecological context and limits of each site.



Build on sustainable practices of the past.



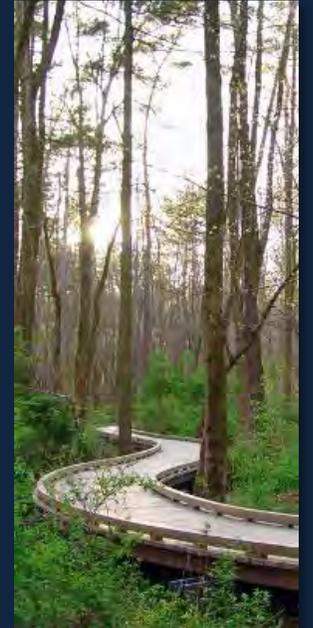
Employ new methods prudently.



Conserve materials and energy.



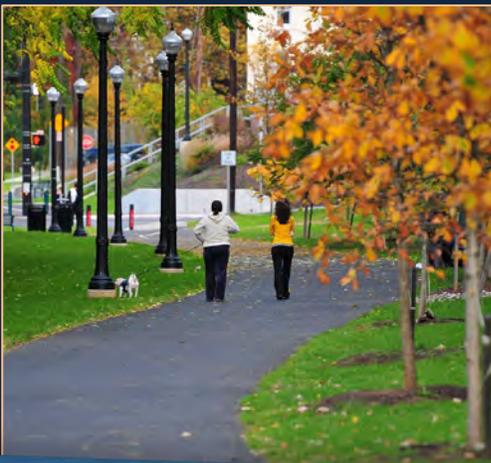
Support local economies.



Design biologically & culturally diverse communities.

Simone Collins Landscape Architecture

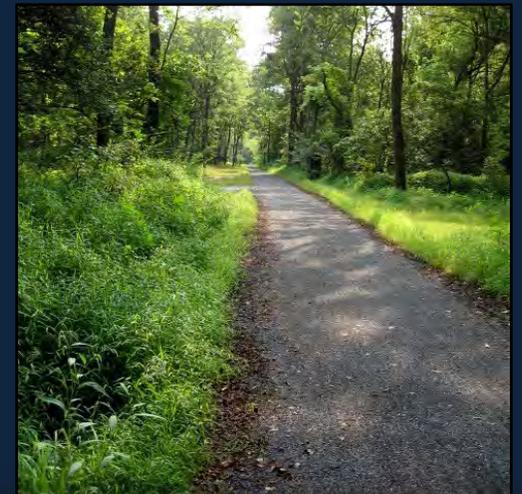
- South Bethlehem Greenway
- Allegheny Highlands Trail (Great Allegheny Passage)
- Schuylkill River Trail – several portions
- Wissahickon Trails Master Plan
- Radnor Township TAP Trail (just constructed)



Spotts Stevens & McCoy Engineers - Traffic Engineers

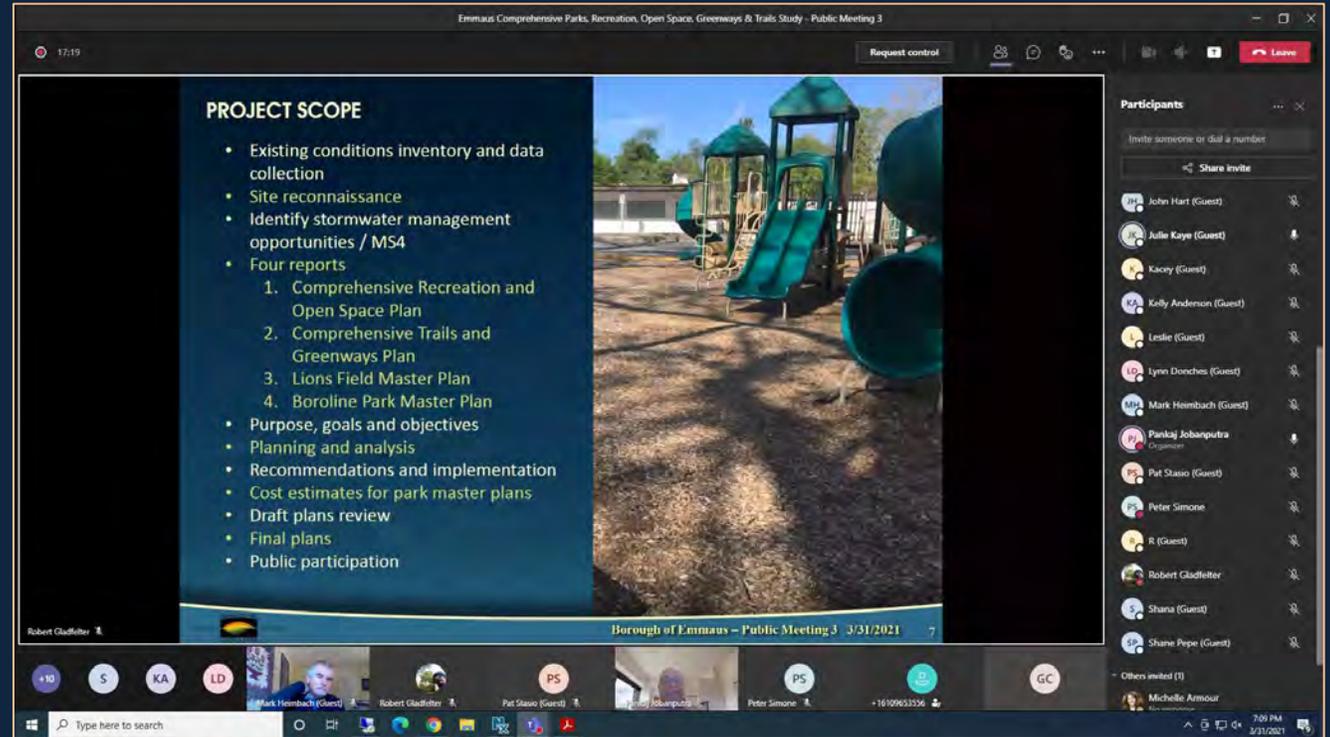
Frequent collaborators with Simone Collins

- 18th Ward Comprehensive Plan, Reading, PA
- Schuylkill Trail Segment, Reading, PA
- Mermaid Park Master Plan, Whitpain Twp, Montgomery County
- Wissahickon Park CDs, Whitpain Twp, Montgomery County
- Municipal Comprehensive Park, Recreation and Trail Plans



Hybrid meeting format

Meetings will be: In person & virtual using Microsoft Teams

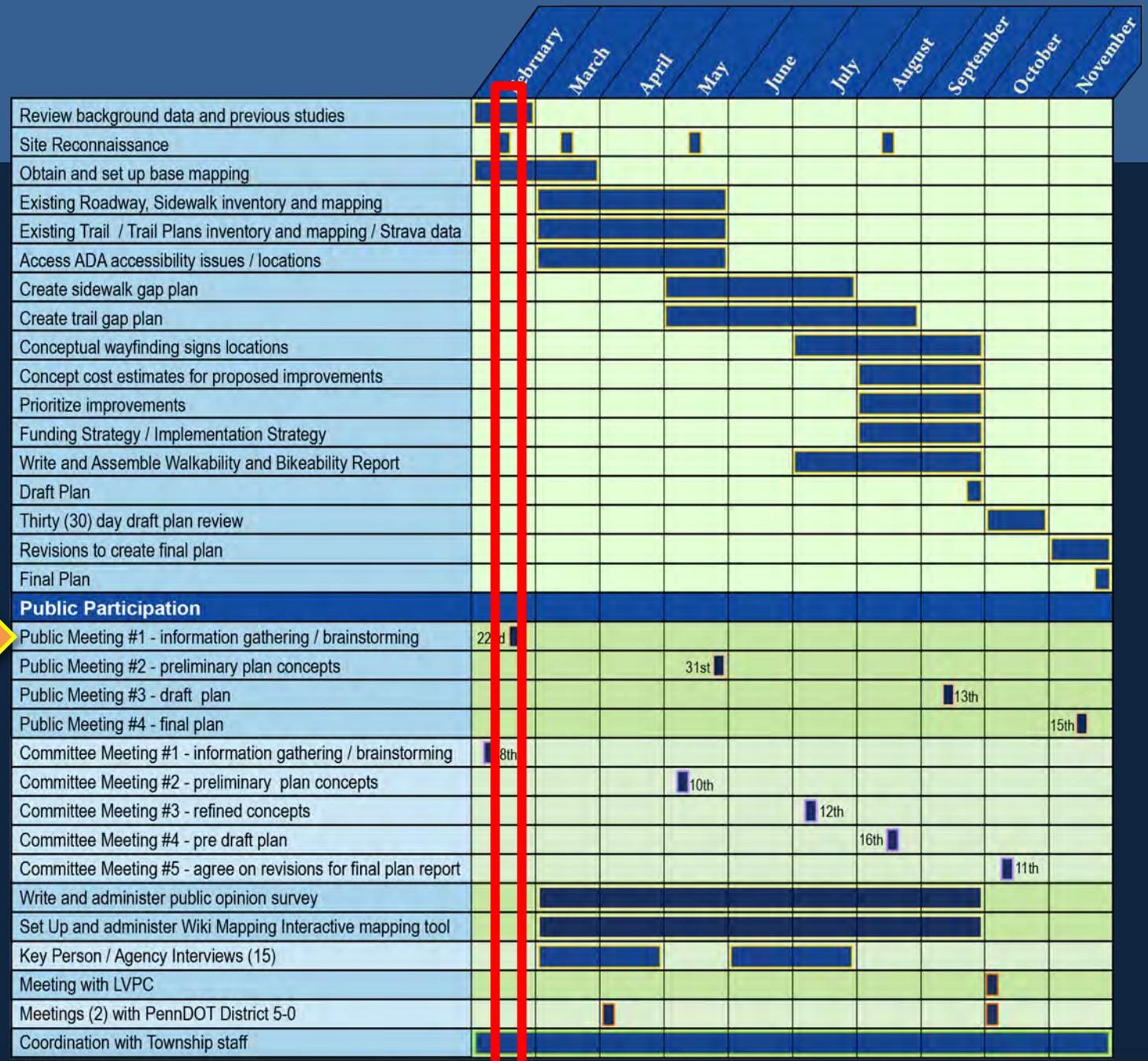


Project Scope

1. Inventory, map and evaluate all existing sidewalks & trails
2. Identification of high intensity / high use areas
3. Infrastructure improvements
4. Costs, Prioritization and Funding Strategy
5. Site Reconnaissance
6. Education
7. Attractive and Compelling Report
8. Public Participation

Project Schedule

- 4 Public meetings
- 5 Committee meetings
- 15 Key Person Interviews
- 2 Meetings w/ PennDOT
- Opinion Survey (7 mo.)
- Wikimapping
- Press Releases
- Township Staff meetings



Project Schedule – Meeting Dates



Month	Day	Date	Meeting	Meeting Time
Feb	Tuesday	8	Committee Meeting #1	6pm
Feb	Tuesday	22	Public Meeting #1	7pm
March	Tuesday	22	PennDOT Meeting #1	?am
May	Tuesday	10	Committee Meeting #2	6pm
May	Tuesday	31	Public Meeting #2	7pm
July	Tuesday	12	Committee Meeting #3	6pm
Aug	Tuesday	9	LVPC Meeting	?am
Aug	Tuesday	9	PennDOT Meeting #2	?am
Aug	Tuesday	16	Committee Meeting #4	6pm
Sept	Tuesday	13	Public Meeting #3 - Draft Plan	7pm
Oct	Tuesday	11	Committee Meeting #5	6pm
Nov	Tuesday	15	Public Meeting #4 - Final Plan	7pm

An aerial photograph of a suburban neighborhood, showing a mix of residential houses, commercial buildings, and green spaces. The top portion of the image is obscured by a dark blue horizontal band containing the title text.

What is a Connectivity Study?

“A lack of pedestrian and bicycle facilities with few transit routes connecting neighborhoods to schools, shopping center, park and recreation facilities, community centers, and employment centers impacts quality of life and limits travel within UMT to use of automobiles.”

2019 UMT Comprehensive Plan



How did
we get
here?



The scope of work for this project includes the professional trail planning for a pedestrian/bicycle inter-municipal trail and connections plan ... to show connections between, trails, recreation areas, schools, shopping centers, villages, and neighborhoods.

A final plan will include the preferred trail routes with an implementation strategy to develop the internal trail network local and regional connections.



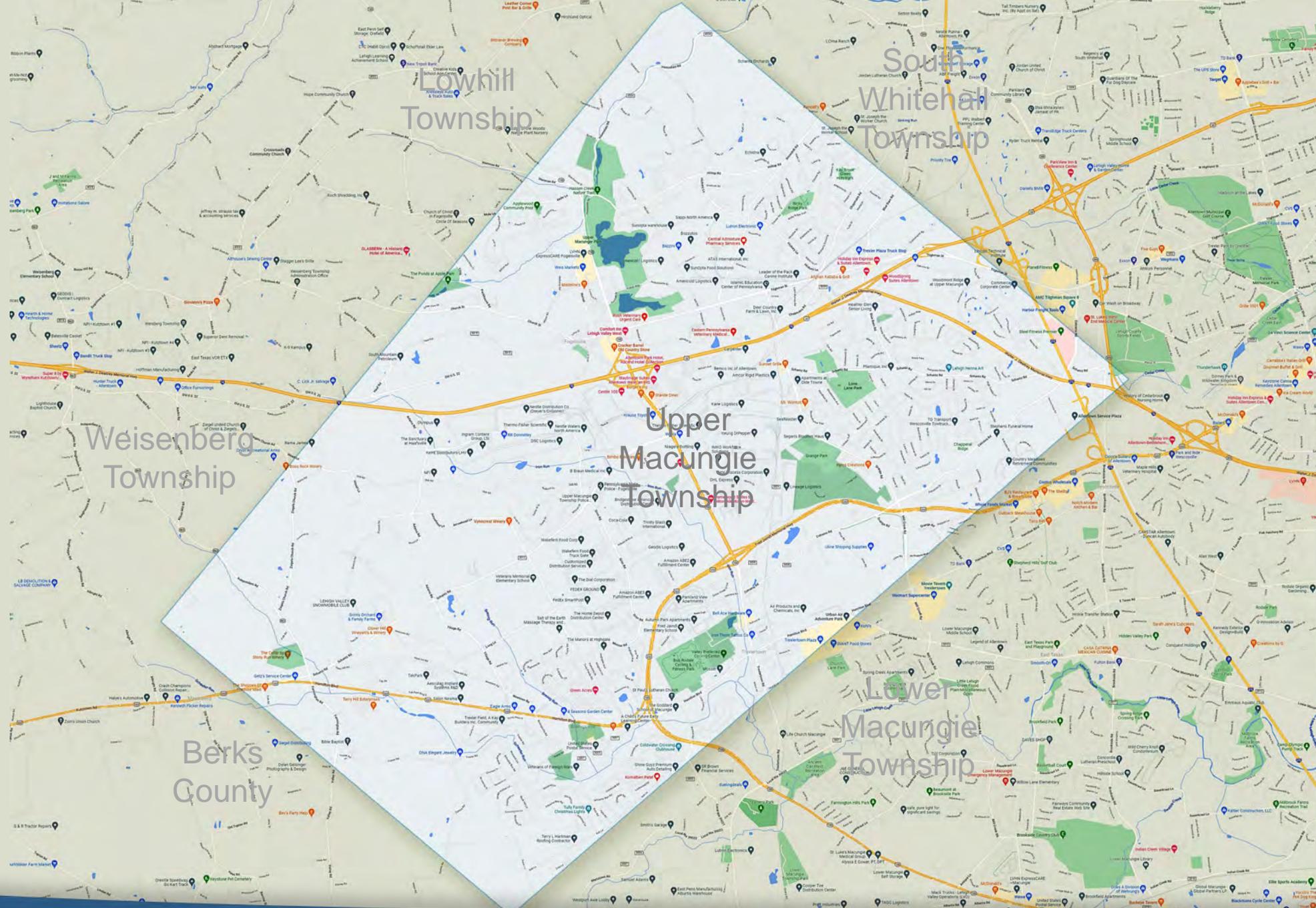
**How do we go
here?**





Study Area





Lowhill
Township

South
Whitehall
Township

Weisenberg
Township

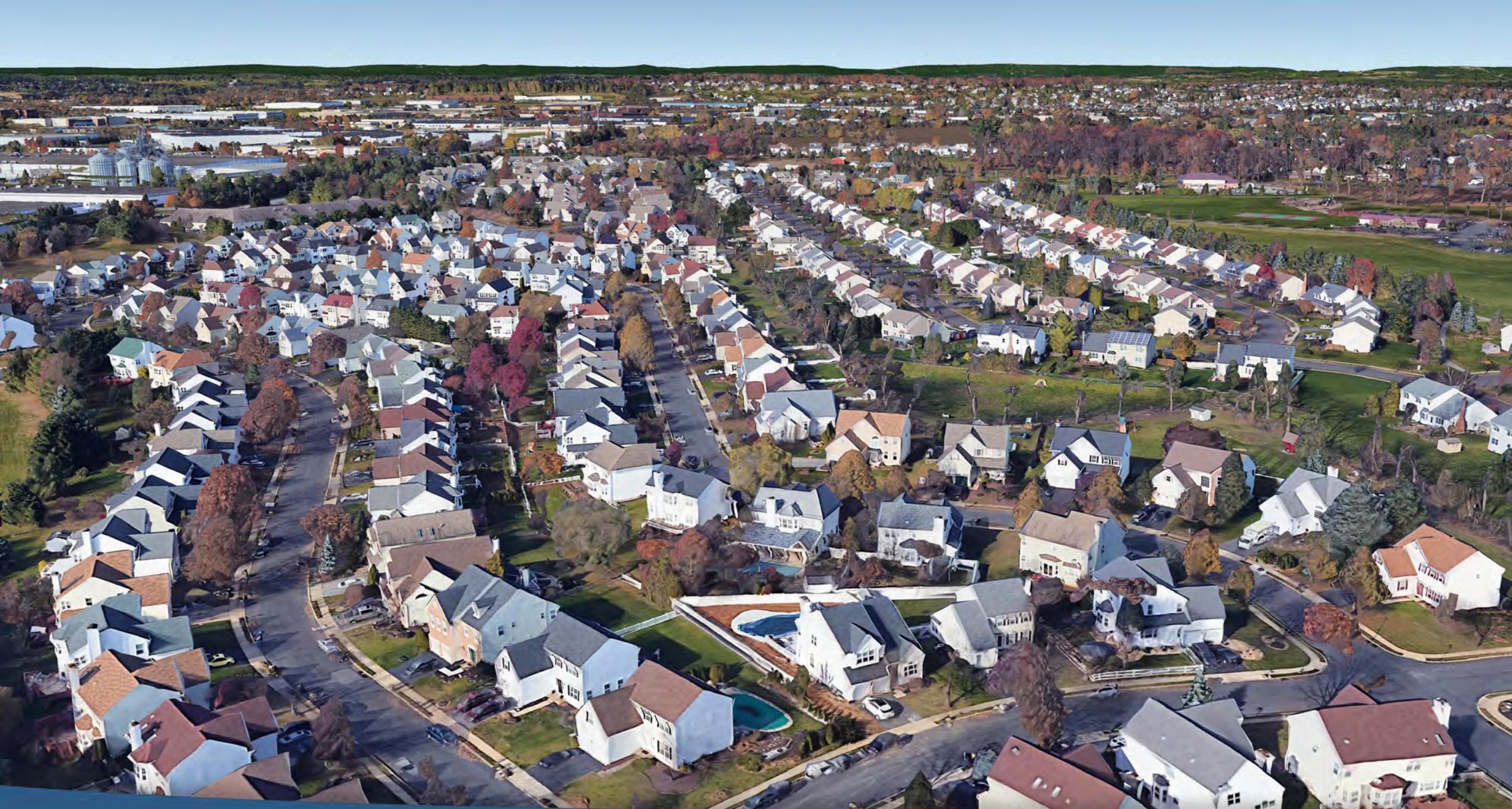
Upper
Macungie
Township

Lower
Macungie
Township

Berks
County



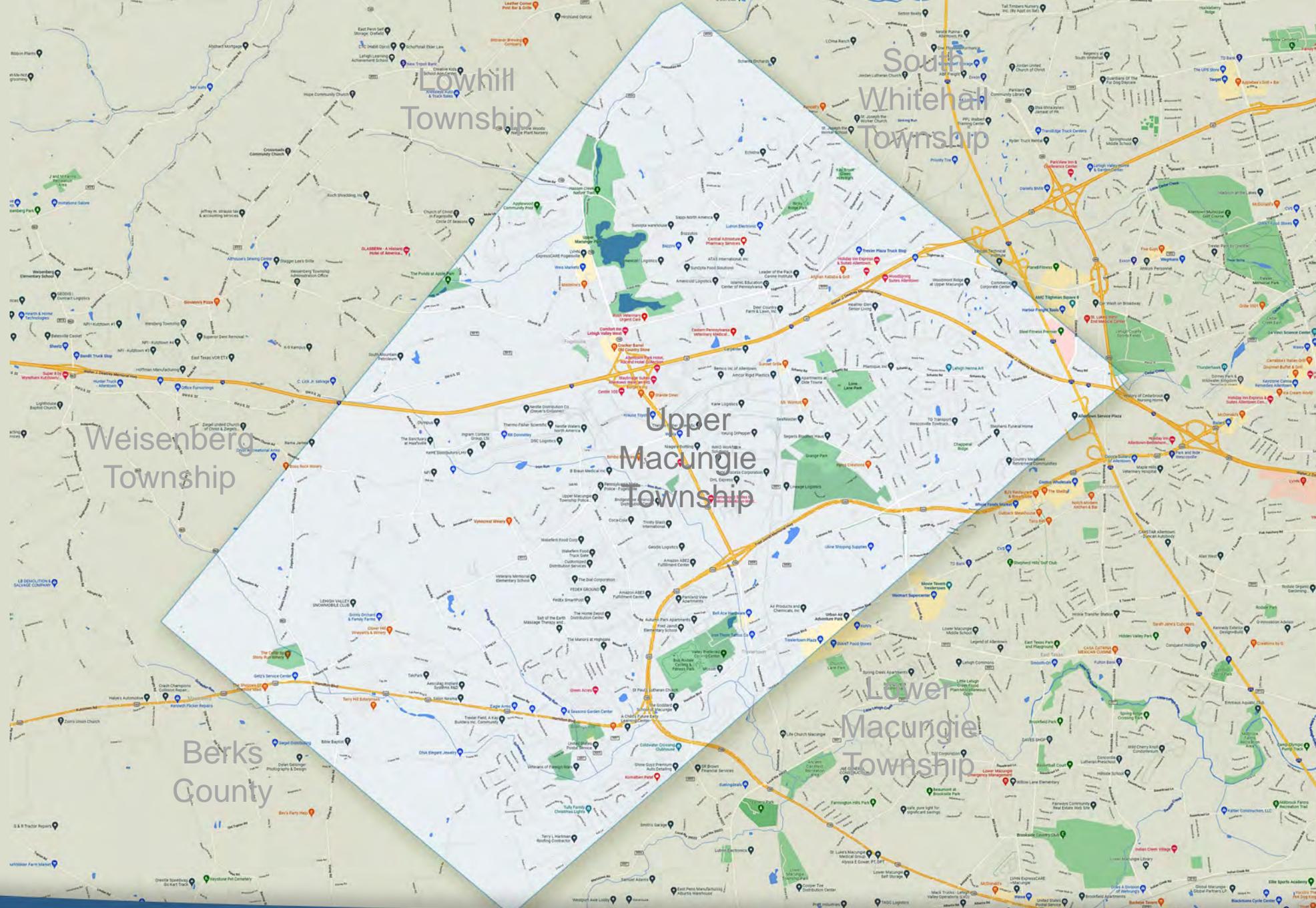














Data & Inventory



Upper Macungie Township 2019 Comprehensive Plan

Lehigh County, Pennsylvania



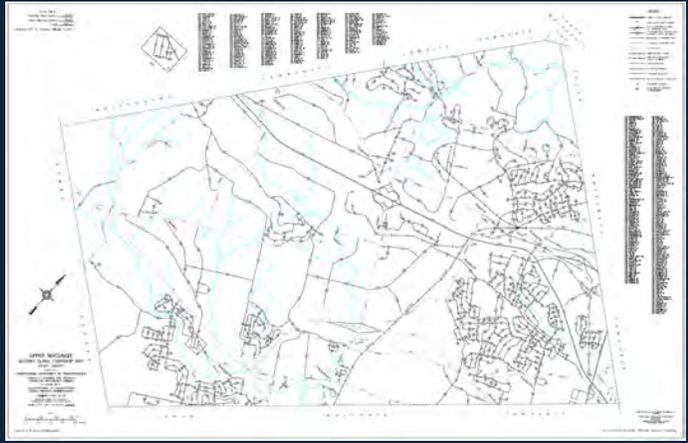
A Plan for Growth Management and Preservation

WALK/ROLL LV

Active Transportation Plan



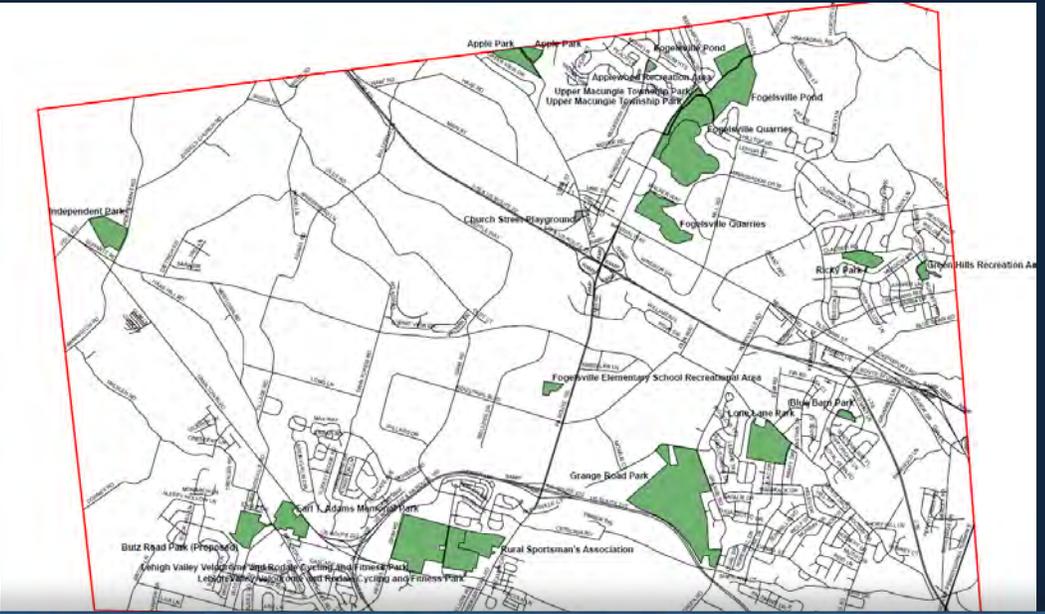
Adopted by Lehigh Valley Planning Commission: May 30, 2020
Adopted by Lehigh Valley Transportation Study: June 3, 2020



Lehigh Valley Trails Inventory – 2013 Lehigh and Northampton Counties



Lehigh Valley Planning Commission
May 2013



An aerial photograph of a suburban town, likely Upper Macungie, Pennsylvania. The image shows a mix of large industrial or commercial buildings with dark roofs, residential neighborhoods with smaller houses, and green spaces. The sky is blue with scattered white clouds. The entire image is overlaid with a semi-transparent blue gradient.

Trails 101 – User Groups

User Groups

Pedestrians



User Groups

Pedestrians



Active Lifestyle



User Groups

Pedestrians



Active Lifestyle



Cyclists

Experienced



Casual



Child



User Groups

Pedestrians



Active Lifestyle



Experienced



Cyclists

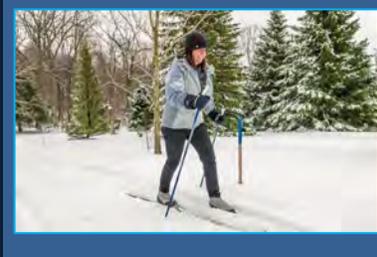
Casual



Child



Other Users



An aerial photograph of a suburban development. The scene shows a mix of large, rectangular industrial-style buildings with dark roofs and smaller residential houses. There are green spaces, including what appears to be a golf course or large park area, and a network of roads. The sky is blue with scattered white clouds. The overall lighting is bright, suggesting a clear day.

Trails 101 – Design Manuals

Design Manuals

Pennsylvania Trail Design & Development Principles
Guidelines for Sustainable, Non-motorized Trails

September 2014
 2014-2015 FISCAL YEAR
 FHWA-14-010

Prepared for:
 U.S. Department of Transportation
 Office of Planning
 Federal Highway Administration

Prepared by:
 U.S. Department of Transportation
 Office of National Transportation Systems Center

Statewide Pedestrian and Bicycle Planning Handbook

September 2014
 2014-2015 FISCAL YEAR
 FHWA-14-010

Prepared for:
 U.S. Department of Transportation
 Office of Planning
 Federal Highway Administration

Prepared by:
 U.S. Department of Transportation
 Office of National Transportation Systems Center

Maintenance Practices and Costs of Rail-Trails

U.S. Department of Transportation
 Federal Highway Administration

rails-to-trails
 CONNECTIVITY

Accessibility Guidebook for Outdoor Recreation and Trails

U.S. Department of Transportation
 Federal Highway Administration

Federal Highway Administration
SEPARATED BIKE LANE PLANNING AND DESIGN GUIDE

U.S. Department of Transportation
 Federal Highway Administration

Designing Streets for Kids

Global Designing Cities Initiative

Trails for All People

Guidance for Accessibility and Inclusive Design

We Conserve PA

Small Town and Rural Multimodal Networks

DECEMBER 2016

U.S. Department of Transportation
 Federal Highway Administration

Incorporating On-Road Bicycle Networks into Resurfacing Projects

U.S. Department of Transportation
 Federal Highway Administration

MARCH 2015

Don't Give Up at the Intersection

Designing All Ages and Abilities
 Bicycle Crossings

U.S. Department of Transportation
 Federal Highway Administration

MACTO

May 2019

Guide for the Development of Bicycle Facilities

2012 • Fourth Edition



Guide for the Development of Bicycle Facilities

- Prepared by the American Association of State Highway and Transportation Officials (AASHTO)



- **On-Road Facilities** – Bicyclists ride within the existing cartway.



- **Shared Use Paths**– Completely separated from the roadway. Also known as 'off-road trails', 'greenways', 'shared use paths', and/or 'multi-use paths'.

AASHTO – On-Road Facilities



BIKE LANES

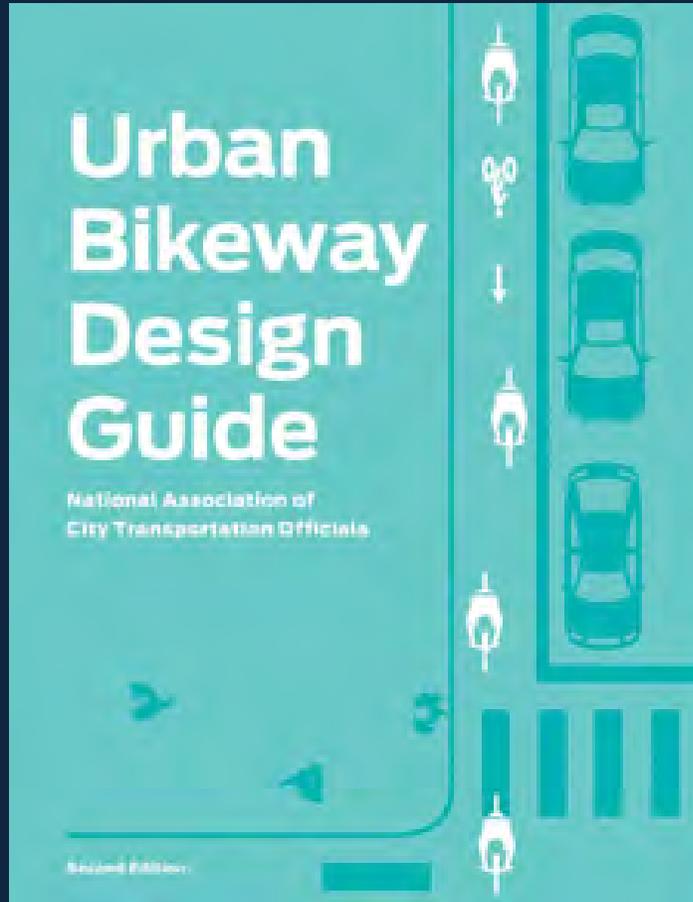
- Bicyclists operate within a designated portion of the roadway that is separate from motor vehicle traffic
- Bike Lane Widths
 - Not adjacent to Curb = 4' minimum
 - Adjacent to curb or other obstacle = 5' minimum
 - Adjacent to Parallel Parking = 5' minimum (7' preferred) – to be placed between parking lane and vehicle travel lane
- 6' – 8' bike lanes allow bicyclist to pass without leaving the bike lane
- MUTCD Signage – R3-17 'Bike Lane' at periodic intervals

AASHTO – Shared-Use Paths



- Characterized as Bikeways that are physically separated from the cartway by a physical barrier or open space
- Should comply with current ADA requirements
- Typical Users include:
 - Upright Adult Bicyclists
 - Recumbent Bicyclists
 - Bicyclists pulling trailers
 - Hand Cyclists
 - Child Bicyclists
 - Inline Skaters
 - Roller Skaters
 - Skateboarders
 - Kick Scooter Users
 - Pedestrians
 - Runners

NACTO – Trail Facility Types



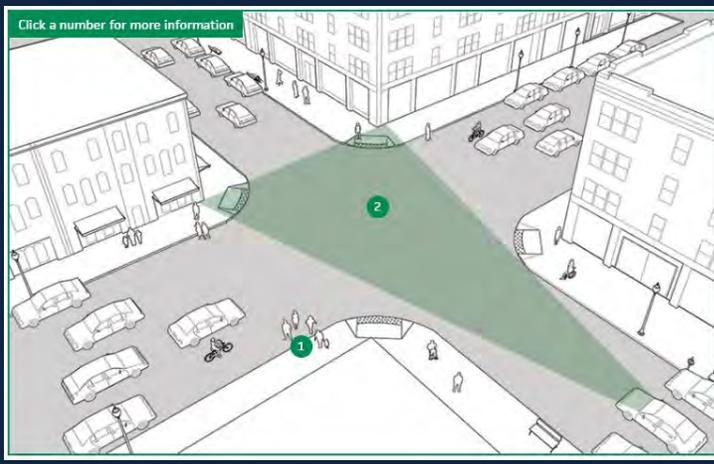
<https://nacto.org/publication/urban-bikeway-design-guide/>

- Additional guidelines for the development of trails – AASHTO standards should still be followed
- Provides additional guidelines for:
 - Bike Lanes
 - Cycle Tracks
 - Intersection Treatments
 - Bicycle Signals
 - Bikeway Signing and Marking
 - Bicycle Boulevards



RESIDENTIAL RIBBON SIDEWALK

Ribbon sidewalks are common in most residential areas. Design the pedestrian through zone to be roughly equal to the planted area, using pervious strips where applicable to help manage stormwater.

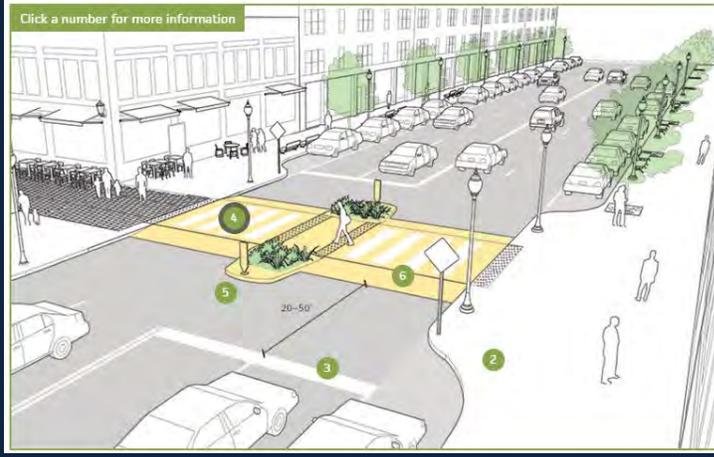


EXISTING

Lower speeds at urban intersections with insufficient sight distances. Low speeds yield smaller sight triangles, meaning that drivers can focus on less activity and better react to potential conflicts.



Click a number for more information



Click a number for more information

Stripe the crosswalk, regardless of the paving pattern or material. Otherwise, drivers are not likely to see it, especially at night.



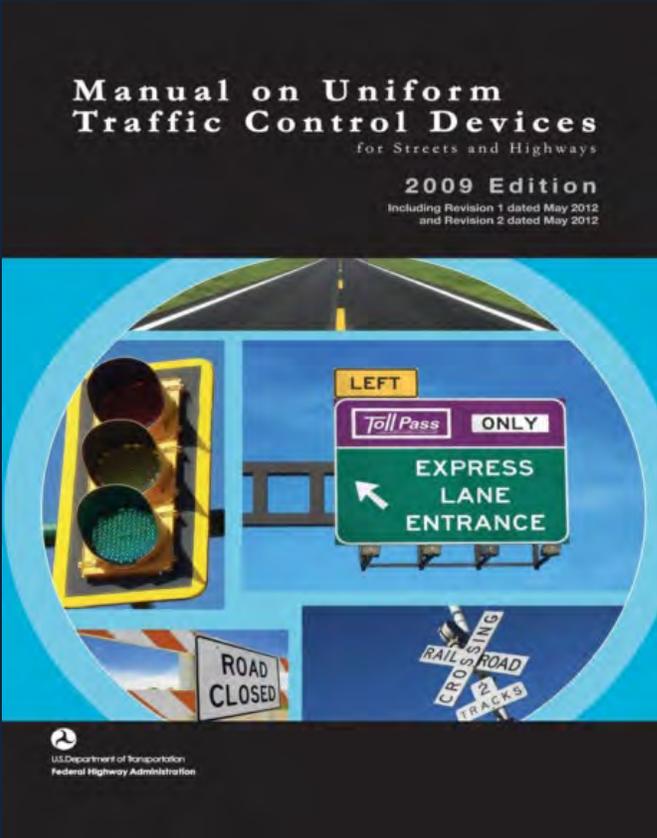
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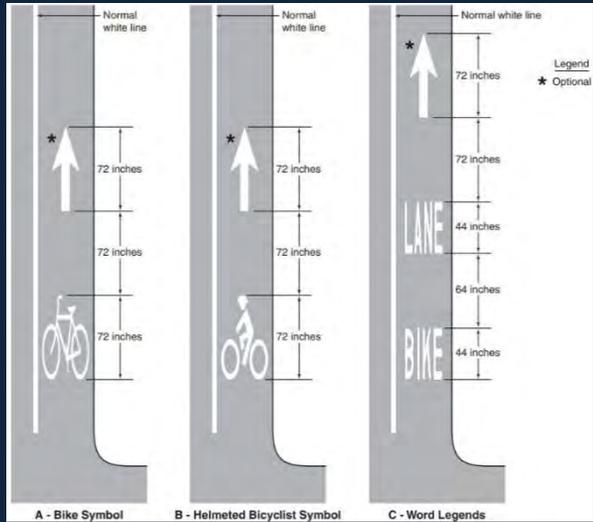
Click a number for more information

PINCHPOINT

MUTCD



- Manual of Uniform Traffic Control Devices
- Signage, Pavement Standards and highway traffic signals for both on-road and off-road trail facilities
- Provide for safe and efficient transportation



Improvement Toolbox



Improvement Toolbox

1. Sidewalk
2. Crosswalk
3. Special Crossing
4. Speed Table
5. Speed Cushion
6. ADA Curb Cut
7. Rapid Flashing Beacon
8. Hand Man
9. Pedestrian Refuge Island
10. Stormwater Management BMP
11. Multi-Use Trail
12. Sharrow
13. Bicycle Lane
14. Bicycle Box
15. Bump Out / Curb Extension



Sidewalks



Crosswalk



Special Crossing



Speed Table



Speed Cushion



ADA Curb Cut



Rapid Flashing Beacon



Pedestrian Refuge Island



Stormwater BMP



Multi-Use Trail



Bicycle Lane

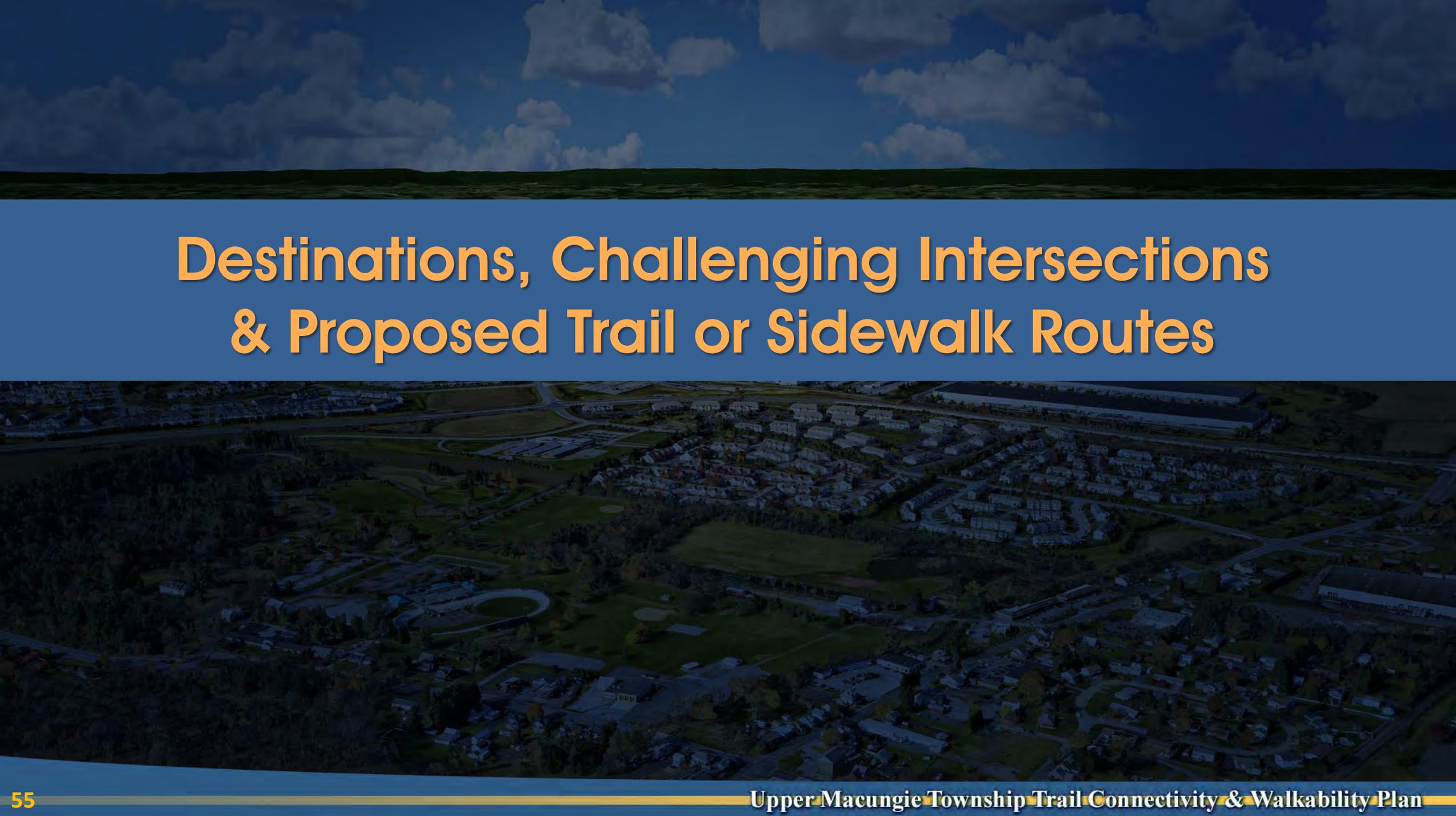


Bicycle Box



Bump Out / Curb Extension



An aerial photograph of a suburban town, showing residential neighborhoods, a golf course, and commercial buildings. The image is overlaid with a blue gradient at the top and bottom. The title text is centered in the blue band.

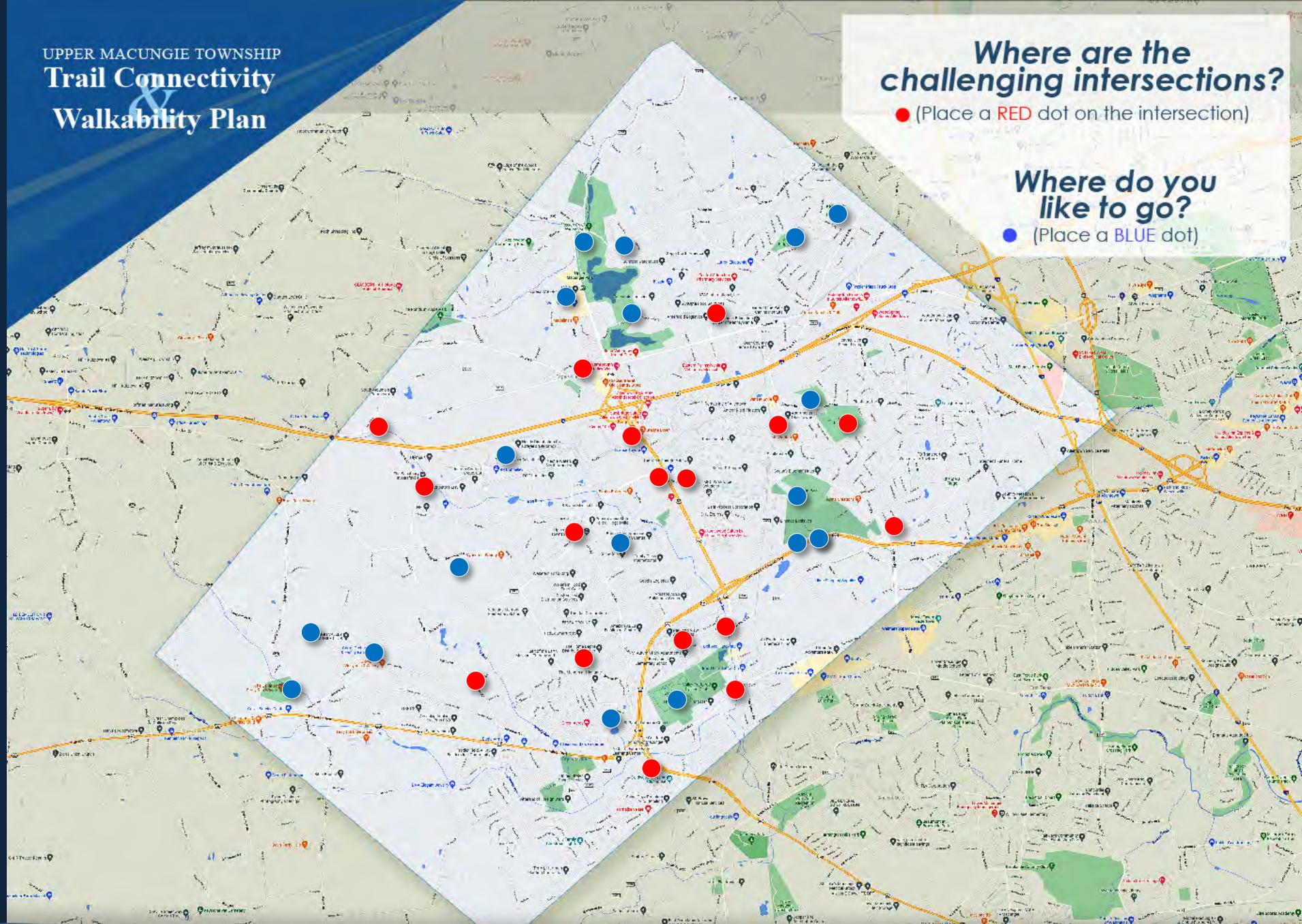
Destinations, Challenging Intersections & Proposed Trail or Sidewalk Routes

Destinations

- Schools
- Retail
- Parks
- Grandparents

Challenging Intersections

- Intersections that are difficult to navigate

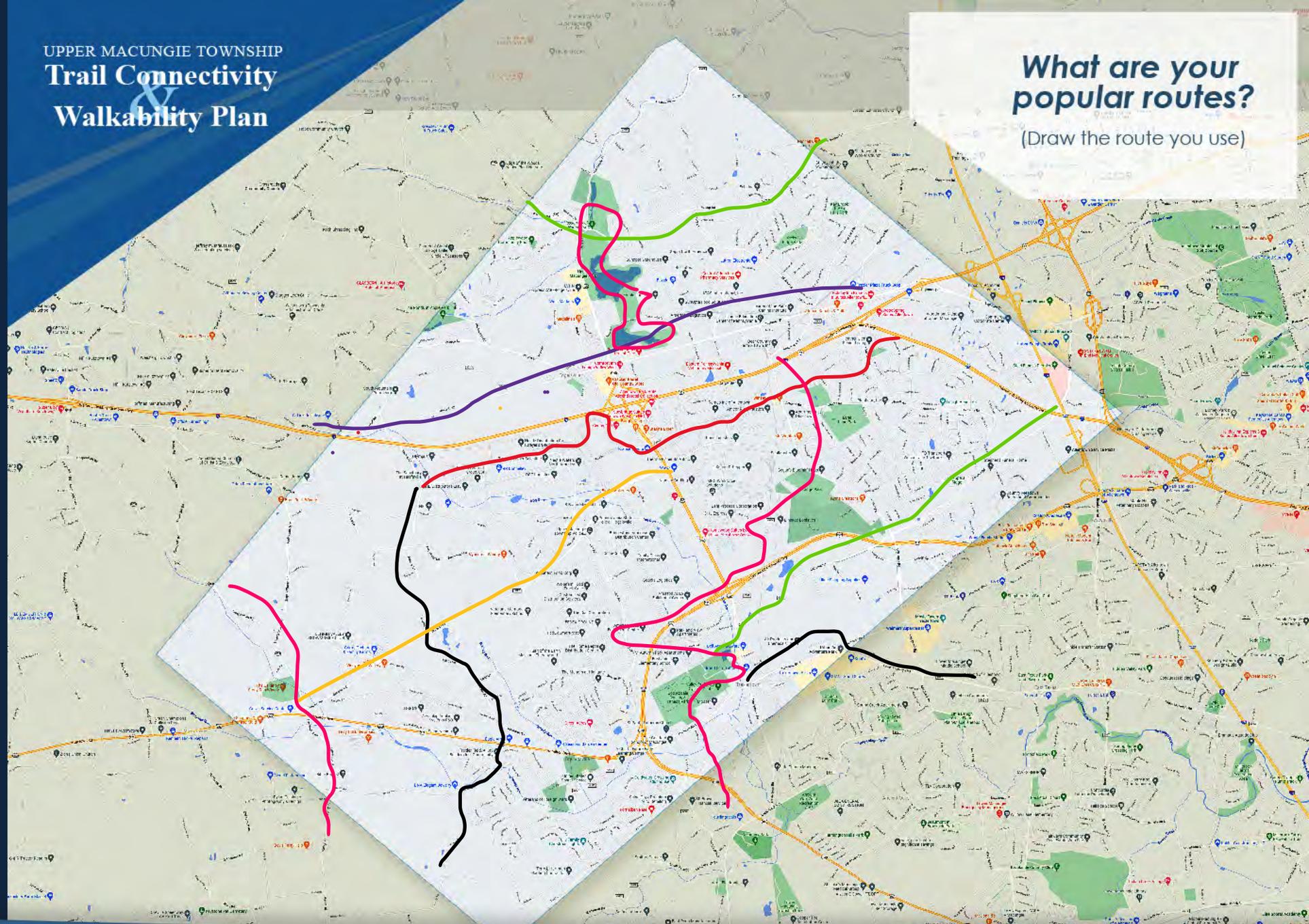


**What are your
popular routes?**

(Draw the route you use)

Popular Routes

- Paths traveled
- Running trails
- Nature walks
- Strava
Segments



Card Technique – Public input



Card Technique

GOALS

Goals for the project — initially broad, then specific

Facts - Good downtown, trails, walkable areas,
large University.

FACTS

CONCEPTS

Ideas for attaining project goals – Opportunities for connectivity
improvement

Partners - Groups, Businesses, Institutions to
create a partnership with

PARTNERS

Your Ideas, Comments, Suggestions...

GOALS

FACTS

CONCEPTS

PARTNERS

DEVELOP A
WALKABLE
COMUNITY

TRUCK
TRAFFIC

POPULAR
DESTINATION

SCHOOL
DISTRICT

MAKE SAFER
FOR BIKES

ROBUST
WAREHOUSE
ENVIRONMENT

SAFE
ROUTES FOR
PED / BIKES

THE
COUNTY

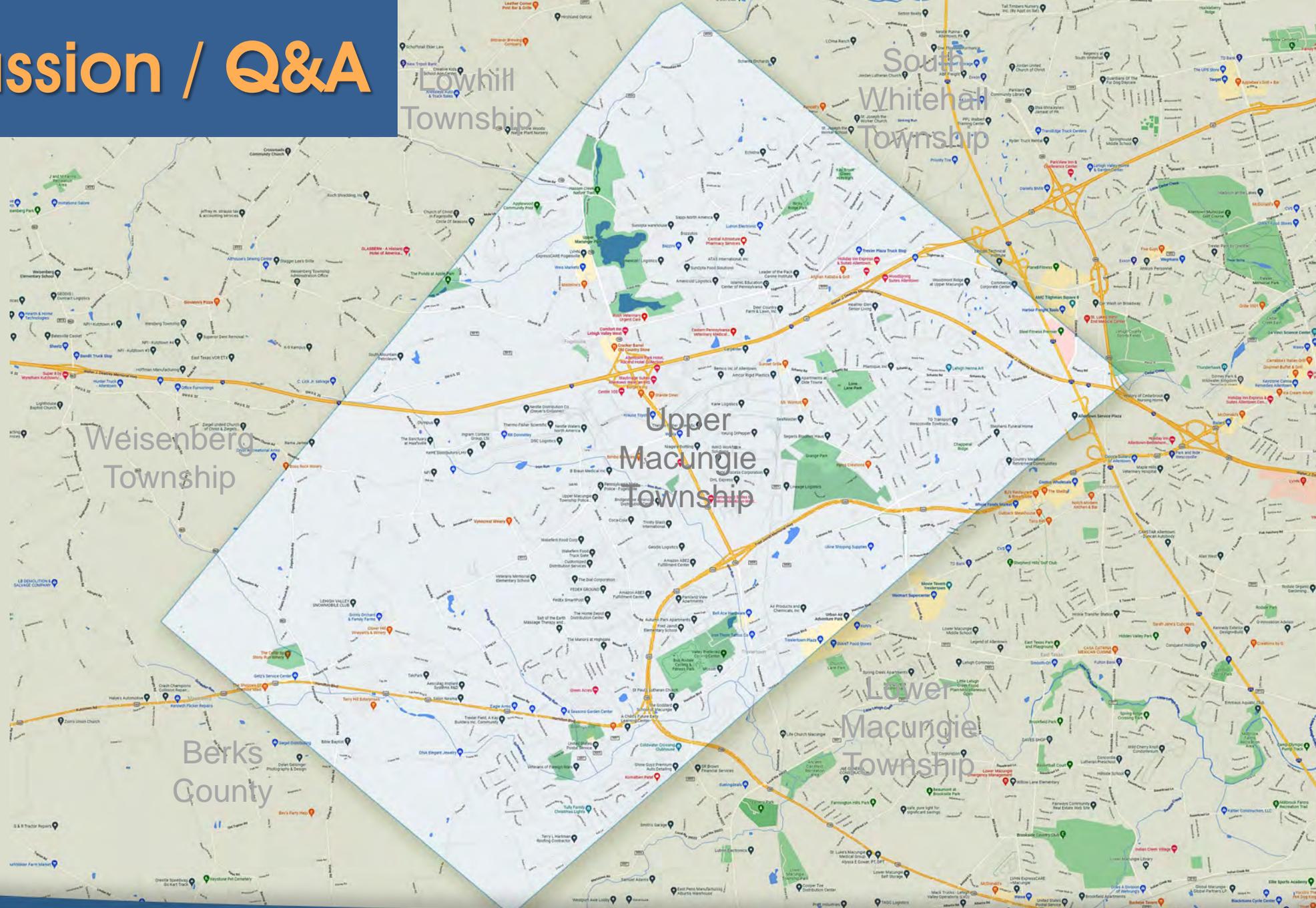
CONNECT
TO THE
PARKS

REGIONAL
HIGHWAY
ACCESS

NEIGHBORHOOD
DEVELOPMENT

LOCAL
BUSINESSES

Discussion / Q&A



An aerial photograph of a suburban development. The top portion of the image shows a blue sky with scattered white clouds. Below the sky is a dark blue horizontal band containing the text 'Next Steps'. The main part of the image is an aerial view of a residential and commercial area. In the foreground and middle ground, there are several large, rectangular, light-colored buildings with dark roofs, likely industrial or commercial. To the left, there is a residential area with smaller houses and a winding road. The background shows more residential buildings and green spaces. The overall scene is a mix of commercial and residential development.

Next Steps

Public Opinion Survey & WikiMapping

Available March 7 – September 1
link available at www.uppermac.org



<https://www.surveymonkey.com/r/UpperMacungieSURVEY>



<https://wikimapping.com/Upper-Macungie-Trails.html>

Next Meeting

- May 31st
- We will presenting preliminary concepts



	February	March	April	May	June	July	August	September	October	November
Review background data and previous studies										
Site Reconnaissance										
Obtain and set up base mapping										
Existing Roadway, Sidewalk inventory and mapping										
Existing Trail / Trail Plans inventory and mapping / Strava data										
Access ADA accessibility issues / locations										
Create sidewalk gap plan										
Create trail gap plan										
Conceptual wayfinding signs locations										
Concept cost estimates for proposed improvements										
Prioritize improvements										
Funding Strategy / Implementation Strategy										
Write and Assemble Walkability and Bikeability Report										
Draft Plan										
Thirty (30) day draft plan review										
Revisions to create final plan										
Final Plan										
Public Participation										
Public Meeting #1 - information gathering / brainstorming										
Public Meeting #2 - preliminary plan concepts										
Public Meeting #3 - draft plan										
Public Meeting #4 - final plan										
Committee Meeting #1 - information gathering / brainstorming										
Committee Meeting #2 - preliminary plan concepts										
Committee Meeting #3 - refined concepts										
Committee Meeting #4 - pre draft plan										
Committee Meeting #5 - agree on revisions for final plan report										
Write and administer public opinion survey										
Set Up and administer Wiki Mapping Interactive mapping tool										
Key Person / Agency Interviews (15)										
Meeting with LVPC										
Meetings (2) with PennDOT District 5-0										
Coordination with Township staff										

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