

Pedestrian & Bicycle Connectivity Framework Plan

October 28, 2013



Township of Hanover
1,000 Route 10
P.O. Box 250
Whippany, NJ 07981

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Acknowledgements

Township Committee:

Ronald Francioli
Robert Brueno, Jr.
Kenneth C. Schleifer
George F. Coppola
John L. Ferramosca

Prepared By:

Planning & Design Consultant
Arterial, LLC
105 Grove Street, Suite 7
Montclair, NJ 07042

Hanover Connectivity Committee

Arthur Linfante, Economic Development Advisory Committee
Jim Coiley, Recreation Commission
Darren O'Conner, Open Space Committee
Gene Pinadella, Planning Board
Ed Schultz, Environmental Commission

Blais Brancheau, Township Planner
Gerardo Maceira, Township Engineer



Purpose of this plan

This Pedestrian and Bicycle Connectivity Framework Plan (the ‘Plan’) establishes a town-wide network of on-road and off-road bicycle trails that link key attractors including population centers, common destinations, school, municipal complex and public parks and open space. In doing so, this plan bridges many of the goals and policies set forth in the Circulation Plan Element with the goals and action items established in the Open Space and Recreation Plan Update – 2011.

The goal of this plan is to advance the Township’s Trail, Greenways and Connectivity goals by:

- Interconnecting the Township’s greenways, parks and open spaces
- Building upon the easements, maintenance and existing improvements associated with “Patriots Path”
- Promoting economic growth by capitalizing on Hanover’s outdoor amenities
- Encouraging walking and bicycling as a viable mode of transportation for all residents and visitors
- Reducing vehicular congestion on roads during peak hours with a particular focus on large corporate campus tenants
- Promoting Hanover as “A Healthy Community”

Relationship to ‘Circulation Plan Element’

The Pedestrian and Bicycle Connectivity Framework Plan is supplemental to the Circulation Plan Element of the Township of Hanover Master Plan. The Circulation Plan Element establishes a series of goals and policies for the “development and improvement of the Township’s transportation network and to coordinate transportation, land use and development policies.” This Plan supports the goals set forth in the Circulation Plan Element and directly achieves the following goals and policies:

Goal: “Encourage the development and use of alternative circulation modes and networks (e.g., pedestrian, bicycle transit) for convenience of the public and in order to reduce motor vehicle traffic on Township streets.” (Circulation Plan Element, Pg 1 C)

Policy: “Provide and interconnect pedestrian and bicycle pathways throughout the township, with particular emphasis on interconnections between recreational uses and schools.” (Circulation Plan Element, Pg 2 Policy #1)

Policy: “Improve pedestrian accessibility in areas of the township where pedestrian traffic is encouraged (i.e., business areas, community recreation areas, municipal campus).” (Circulation Plan Element, Pg 2 Policy #2)

Relationship to ‘Open Space and Recreation Plan’

The “Open Space and Recreation Plan Update – 2011” (the ‘Open Space Plan’) was prepared by the Township of Hanover in collaboration with The Land Conservancy of New Jersey to provide a guide for the Township’s open space program. The Trails and Greenways section of the Open Space Plan underscores that trails connecting “local neighborhoods, community centers, natural areas and protected parklands” are a priority for the Township. This plan promotes two of the Township’s open space program goals and objectives:

- To expand and enrich Hanover Township’s diverse park and trail system
- To create greenways connecting the neighborhoods, park and trails

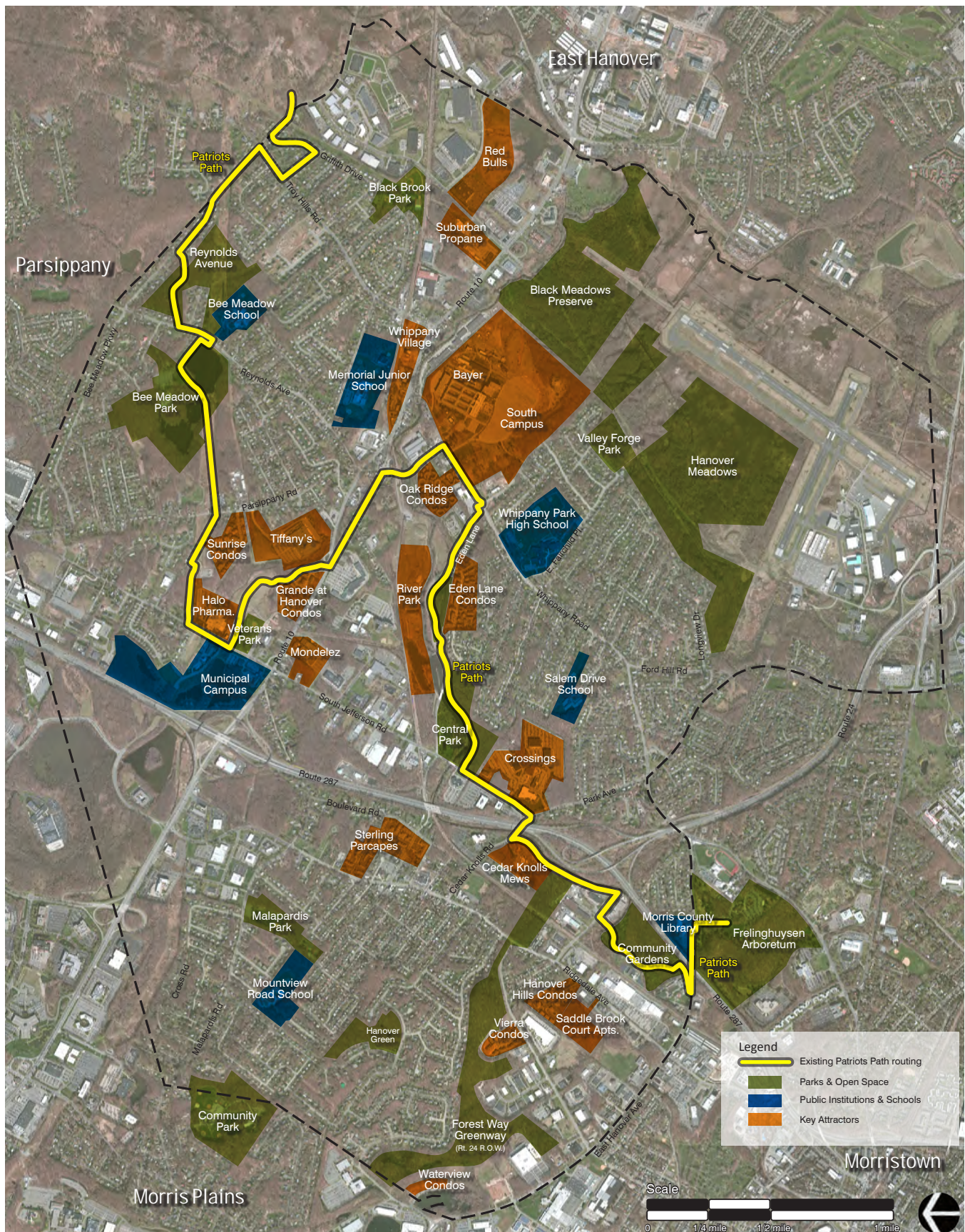
The Open Space Plan also includes an “Action Program” that identifies a series of Short-term, Mid-term and Long-term action items. The following are several of these action items:

- Create a bicycle/pedestrian committee to spearhead working toward solutions to improve access for non-motorized transportation alternatives
- Meet with County transportation officials to request incorporation of bicycle lanes along County roads.....
- Work with Morris County Park Commission.....to develop interpretive signage along Patriots Path
- Begin establishing a trail along lands leased by the municipality within the Rt. 24 / Rt 178 ROW
- Create a well-signed walking and trail system, linking the Township’s neighborhoods, parks and schools
- Develop a comprehensive Trail Plan that includes Bike Paths and Pedestrian trails that will provide alternative transportation routes between population centers, common destinations, and public parks.

Open Space Trust Fund

In early 2000, the Township of Hanover established the “Open Space and Park Land and Facilities Preservation Trust Fund” (also referred to as ‘Open Space Trust Fund’) to expand and improve the town’s existing parks and protect its unique natural areas. As of 2011, the Township has utilized this fund to preserve seven (7) properties totaling 238 acres (ref. “Open Space and Recreation Plan Update – 2011”, Township of Hanover). Whenever possible, this plan capitalizes on these properties by creating bicycle and pedestrian connections to or along these properties.

Map 1 - Existing Conditions



Patriots Path

Patriots Path is a network of on and off-road hiking, biking and equestrian trails extending for 55-miles throughout Morris County. The network is gradually developing with trail conditions ranging from asphalt paved paths to narrow dirt trails. The trail system is operated by the Morris County Parks Commission. It is supported by “Adopt-A-Trail” participants that help maintain segments of the trail.

An important spur of Patriots Path crosses from north to south through Hanover Township (refer to Map 1 - Existing Conditions). The trail alignment is complete except for one small segment along the utility corridor from Parsippany Road to Bee Meadow Park. The trail condition varies widely ranging from a small paved segment in Central Park to areas that appear to be less visible and somewhat difficult to identify such as the segment from Whippany Road to Veterans Park. Given this varied condition, the trail gets limited use and is only conducive to avid hikers that set out to explore Patriots Path. It is not conducive to bicycling or casual day-to-day walkers. In addition, almost half of the trail is “on-road”, meaning that the trail runs along existing roads rather than through wooded areas or other off-road routes. In these locations, no pedestrian amenities, bicycle lanes, safety signage or other amenities that encourage bicycle or pedestrian use.

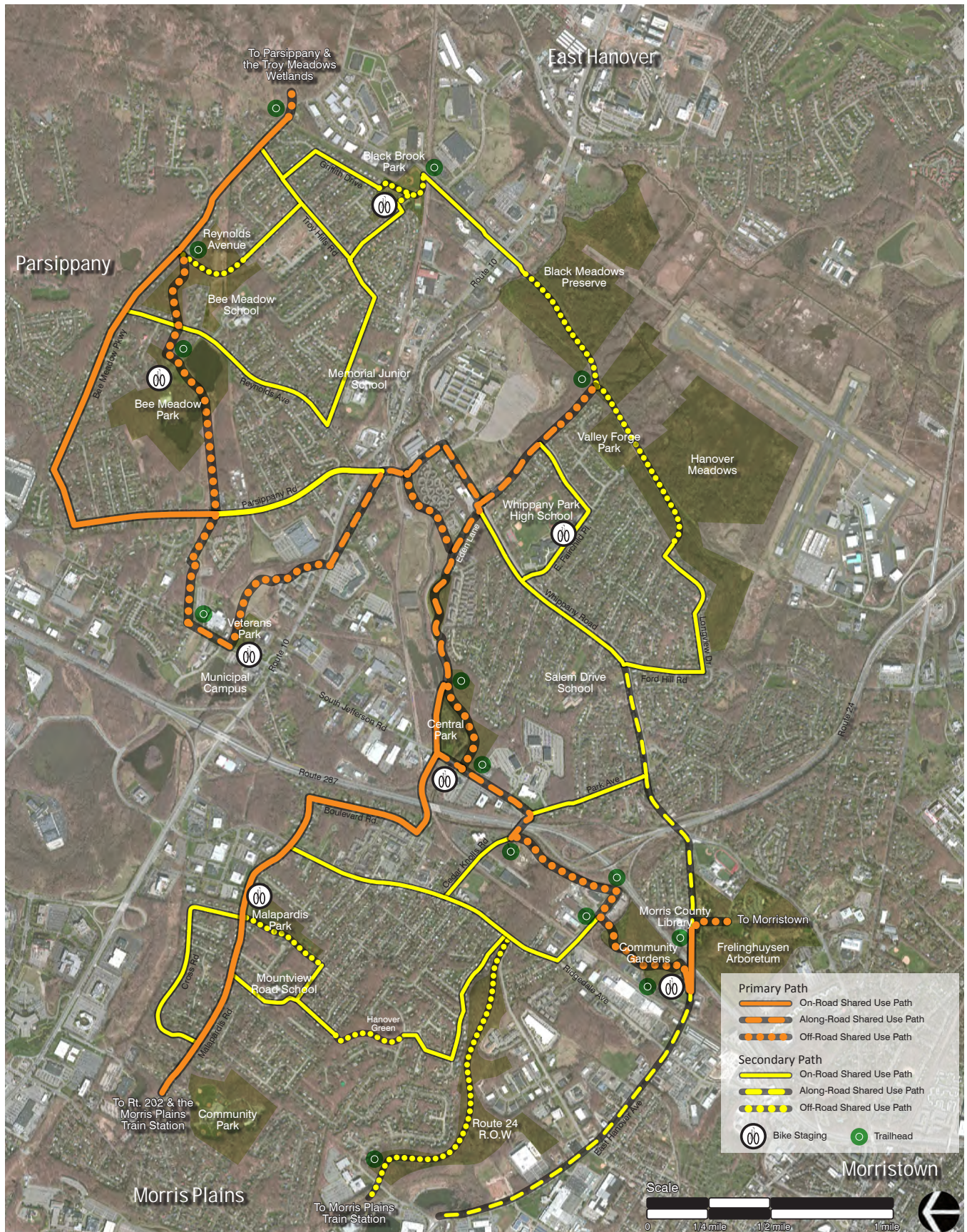
This Plan recommends working with the Morris County Park Commission to upgrade segments of Patriots Path to make them suitable for bicyclists and pedestrians; and utilizing this as a primary north-south bicycle and pedestrian spine.

Key Attractors

This Bicycle and Pedestrian Framework Plan furthers the goals of the Township by establishing safe, convenient bicycle and pedestrian connections between populated areas and key attractors including corporate parks, commercial areas, parks / open space and schools. In addition to existing attractors, this plan considers the impact of “Key Development Sites”. Key Development Sites are sites that are currently under construction or in the planning phase that will include a mix of uses or additional public space that make it a destination; and/or a generate a high volume of visitors/employees daily.



Map 2 - Framework Plan



This Framework Plan (refer to Map 2 - Framework Plan) outlines a general trail alignment based on current conditions and to link “Key Attractors” as described in the Introduction. However, this alignment is intended to communicate the intent of the trail system and should be flexible. The exact location or routing of this trail may need to be adjusted based on field conditions – but the overriding goals should be maintained. In order to maximize efficiencies and usage, whenever possible the trail was aligned to utilize easements or paths previously established for Patriots Path.

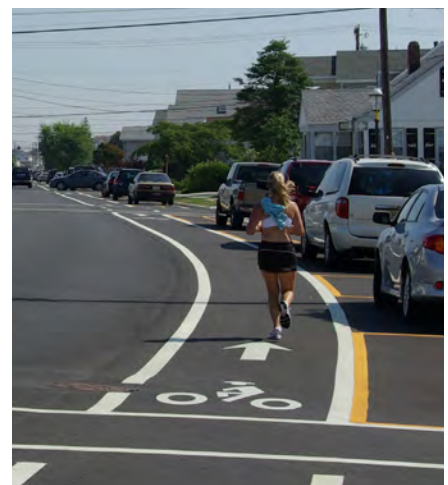
Complete Streets

Streets that encourage biking and walking are essential to the livability and sustainability of New Jersey’s communities. The Township of Hanover, like many of New Jersey’s suburbs and exurbs has, over time, been planned and designed to accommodate cars as the dominant form of transportation. While cars are an important mode of transportation, this focus has left many of the residential neighborhoods and commercial areas inaccessible by any means other than the car.

Complete Streets are streets that are designed to safely accommodate all users, including cars, pedestrians, bicyclists, and transit. Bicycle and pedestrian amenities can be retrofit into existing roadways, incorporated as a complete roadway reconstruction, or included in the construction of new roads. Complete Streets often include interventions such as:

- Sufficient sidewalk widths for comfortable pedestrian passage
- Safe, visible, and ADA compliant street crossings
- Streets trees, benches, and sidewalk cafes
- Parking for many types of vehicles, including cars and bicycles
- Well-marked, safe public transit stops, often including shelters

Currently, very few state and local government agencies in New Jersey require that streets balance the needs of all users. For this reason, many counties and municipalities across the state are adopting Complete Streets Policies. According to the National Complete Streets Coalition, “Complete streets policies formalize a community’s intent to plan, design, and maintain streets so they are safe for all users of all ages and abilities. Policies direct transportation planners and engineers to consistently design and construct the right-of-way to accommodate all anticipated users, including pedestrians, bicyclists, public transportation users, motorists, and freight vehicles.” As of June 2013, 63 Complete Streets Policies had been adopted in NJ (NJ Bicycle and Pedestrian Resource Center). This Plan identifies a series of roads throughout the Township that should be



improved as part of the larger trail network. In addition, the Township of Hanover should consider adopting a Complete Streets Policy that will guide the future development of the Township's roads.

Trail Users

This trail network has been planned to accommodate bicyclists and pedestrians of all levels and abilities. There were two types of primary users anticipated:

Recreational Users: A primary focus of this study was to plan a trail that could be used recreationally by families, visitors and employees of the various corporate parks for leisure and for exercise. For this reason, the primary spines have been planned as “off-road” or “along road” multi-use paths physically separated from vehicular traffic.

Alternate Transportation Users: The trail system was also designed to encourage residents and commuters to bicycle or walk to the various destinations throughout town (i.e. the library, municipal complex, schools etc) as a viable alternative to driving. However, since this is a shared-use trail that will accommodate pedestrians and bicyclists, bicycle speed limits should be enforced along the shared-use segments.



Parking and Staging Areas

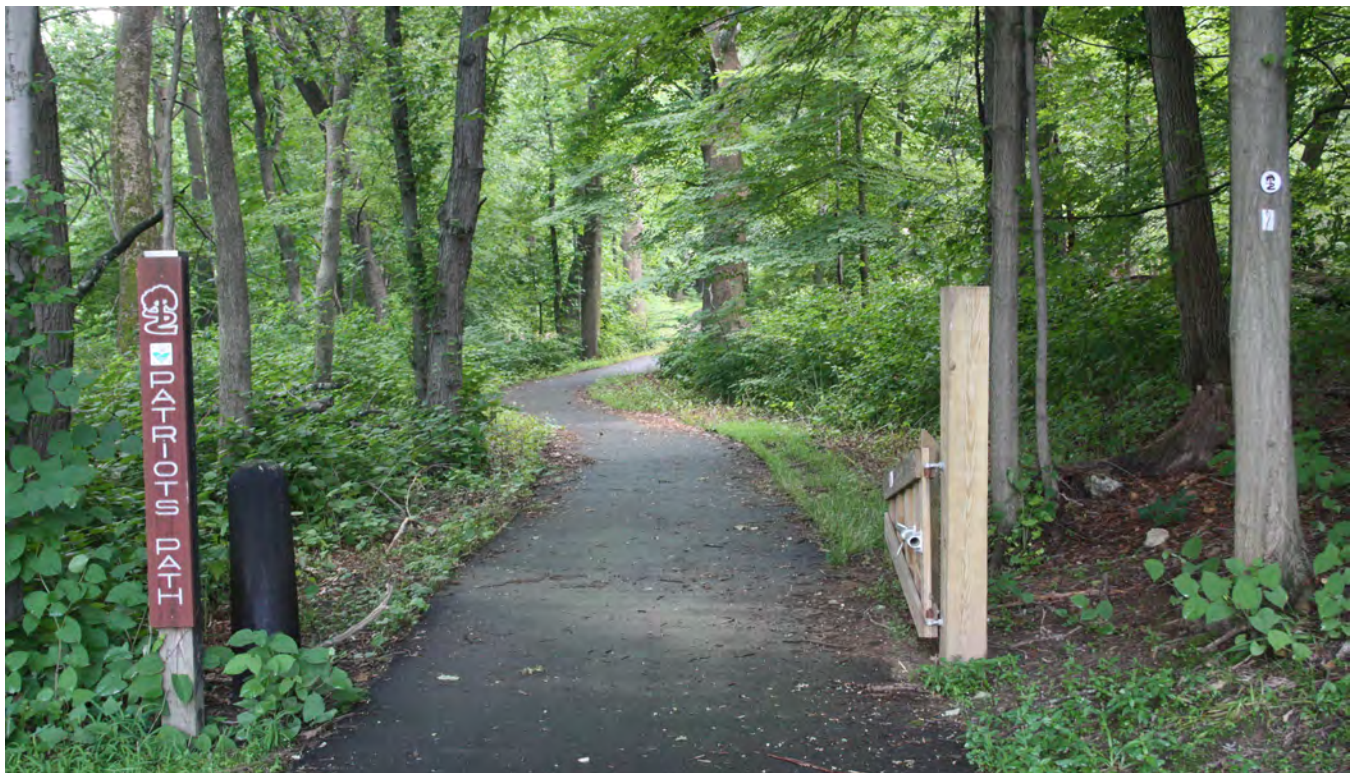
It is anticipated that this trail will be used by recreational users, including tourists coming from surrounding towns. For this reason, this plan identifies several potential areas for parking or bicycle staging. A parking analysis should be conducted to determine if these areas have capacity to accommodate the trail users. These locations are as follows:

- Malapardis Park / Upper Malapardis Park
- Community Gardens
- Central Park
- Black Brook Park
- Bee Meadow Park
- Veterans Park
- Whippany Park High School
- Municipal Campus

Trail Heads

A number of potential trail head locations have been identified on the plan. These locations are generally key transitions from on-road to off-road trail segments and are in areas that are anticipated to receive a high volume of users entering the trail system.

Existing trail head at Central Park



Trail Typologies

The trail typology will change throughout its length based on the existing conditions and anticipated usage. Whenever possible, the trail should be a Shared-Use Path that is separated from vehicular traffic. In lower traffic areas or where an off-road path is not feasible, the trail may be incorporated “on-road”. This Plan envisions three primary “trail typologies” in as follows:



On-Road Path

On-Road Path: Pedestrians and bicyclists will be separated and integrated into the existing roadway. Pedestrians will use the sidewalk areas while bicyclists will be encouraged to use the roadway. Appropriate facilities should be provided for bicyclists and pedestrians including bicycle lanes or sharrows (shared road pavement markings), safety signs for motorists, ample sidewalks and improved pedestrian crossings.



Along-Road Shared Use Path

Along Road Shared-Use Path: An 8’-10’ wide path constructed of either concrete or asphalt that runs parallel to a roadway. This typology is generally constructed within the road ROW. County coordination will be required for paths located within County ROW.



Off-Road Shared Use Path

Off-Road Shared Use Path: An 8’-10’ wide path constructed of either asphalt or decomposed granite that runs through wooded areas or open lawns. This typology requires that: the land is owned by the Township; the land is owned by the County and an agreement is made allowing it to be used by the Township for this purpose; or there is an easement that the trail can be constructed within.



Washington Street
NEWARK, NJ

On-Road Path (Bike lane with sidewalk)

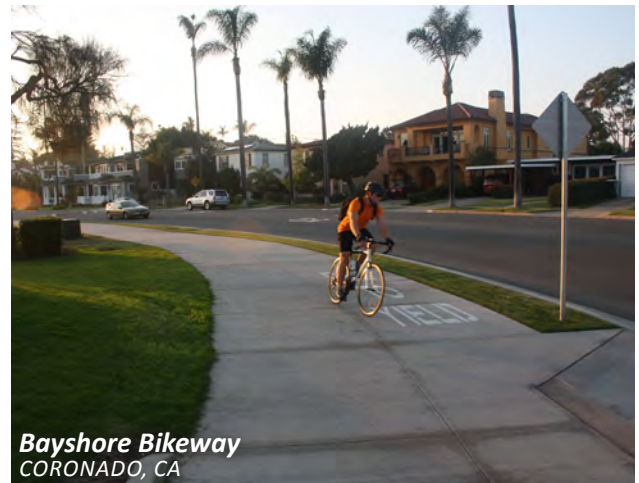


Seaview Ave
WILDWOOD, NJ



Bayshore Bikeway
CORONADO, CA

Along-Road Shared Use Path



Bayshore Bikeway
CORONADO, CA



Patriot's Path
HANOVER, NJ

Off-Road Shared Use Path



Hudson River Greenway Trail
NYACK, NY

Map 3 - East/West Spine



East/West Spine

This spine (as depicted on Map 3 - East/West Spine), in its entirety connects the train station in Morris Plains down Malapardis Road to the end of Eden Lane at the southern end of the Township of Hanover. The trail begins on-road at the border of the Township of Hanover on Malapardis Road and continues south past Malapardis Park where it crosses Ridgedale Ave to Boulevard Road. The trail continues on-road south along Eden Lane, crossing South Jefferson Road and turning to the right where it transitions onto the South Jefferson Road along-road path. It continues along South Jefferson Road to the trail-head at Central Park. The trail follows the existing off-road path through Central Park and then continues on Eden Lane via an along-road path. At the intersection of Eden Lane and Whippany road the trail uses existing crosswalks to cross Eden Lane, then Whippany Road and continue on-road to the end of Eden Lane. At this point it transitions off-road and connects to secondary paths through Hanover Meadows and Black Meadows Preserve.

This East/West spine connects the following:

- a) Morris Plains
- b) Morris Plains Train Station
- c) Community Park in Morris Plains
- d) Mountview Road School
- e) Malapardis Park
- f) Central Park
- g) Black Meadows Preserve

Malapardis Park



Map 4 - North/South Spine



North/South Spine

This spine (as depicted on Map 4 - North/South Spine) follows the route that has already been established by the Morris County Park Commission for Patriots Path. This leg of the trail begins in front of the Morris County Public Library where it connects to the Morristown leg of Patriots Path (through the Frelinghuysen Arboretum). The trail travels west on-road along East Hanover Ave to an entry drive located at the Morristown Wastewater Treatment Plant. The trail extends down this driveway to the Community Gardens and a large open space area owned by Morris County Park Commission. At this point the trail transitions to an off-road trail over an open field of grass and then winding through the woods along the Whippany River. An existing pedestrian bridge brings the trail across the Whippany River, along an existing ambulatory easement through private property and towards Rt. 287 and the Whippany River. The trail meanders along a scenic segment of the Whippany River until it comes to the bridge at Cedar Knolls Road. The trail then transitions on-road over the Cedar Knolls Road Bridge to the traffic light at the intersection of South Jefferson Road. The trail crosses over Cedar Knolls Road and converts to an along-road path on the east side of South Jefferson Road to the Central Park Trail Head. The trail follows the existing off-road path through Central Park and then continues on Eden Lane via an along-road path. At the intersection of Eden Lane and Whippany road the trail uses existing crosswalks to cross Eden Lane, then Whippany Road. The trail continues along Whippany Road.

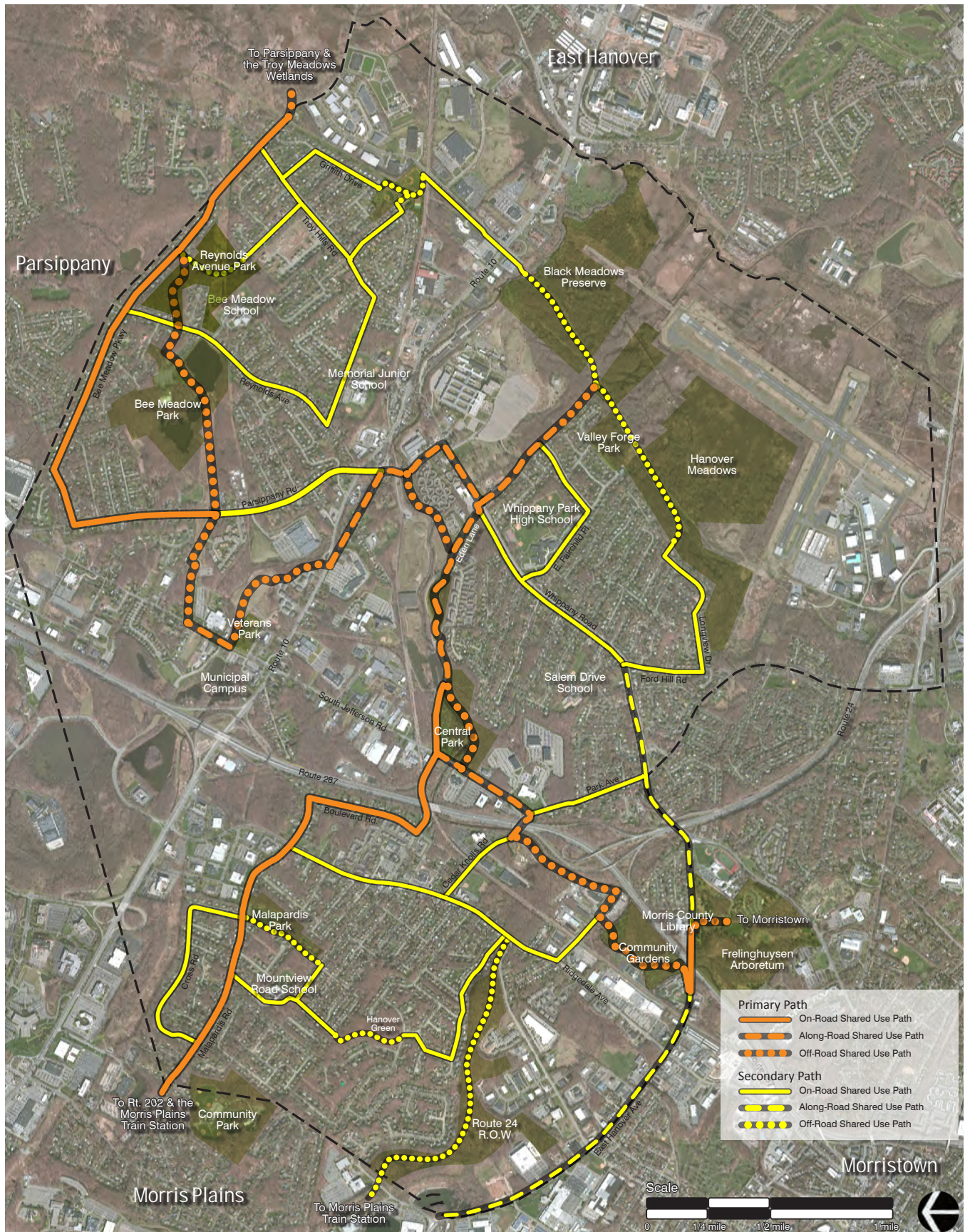
At the intersection of Parsippany Road, the trail stays on-road along Parsippany Road and then turns onto Mt. Pleasant Avenue. At the end of Mt. Pleasant Ave., the trail crosses over an existing pedestrian bridge and across the Pine Plaza entrance to the Rt 10 traffic signal. Once across Rt. 10, the trail meanders through the woods adjacent to The Grande at Hanover residential development. The path continues across an open field and through Veterans Park to South Jefferson Road. The trail continues along South Jefferson Road for a short distance then turns off-road beneath the existing power lines. The trail follows this utility corridor off-road to Bee Meadow Park. The trail traverses the Bee Meadow Park parking lot to Reynolds Avenue. From Reynolds Ave, the trail cuts through a wooded area to Hillary Court where it transitions back on-road to Bee Meadow Parkway. The trail follows Bee Meadow Parkway as an on-road path to Troy Road. At this point the trail connects with the East Hanover segment of Patriots Path through Troy Meadows.

Note: As an alternative to following the utility corridor and off-road path between Parsippany Road and Reynolds Avenue, the path may also have an on-road spur that travels up Parsippany Road to Bee Meadow Parkway as shown on Map 4.

This North/South spine connects the following:

- | | |
|----------------------------|----------------------|
| a) Morristown | h) Municipal Campus |
| b) Frelinghuysen Arboretum | i) Bee Meadow Park |
| c) Morris County Library | j) Bee Meadow School |
| d) Community Gardens | k) Troy Meadows |
| e) Central Park | l) East Hanover |
| g) Veterans Park | |

Map 5 - Neighborhood Connectors



Residential Neighborhoods

The purpose of secondary routes is to interconnect the towns various neighborhoods, parks, schools and businesses with the primary trail spines. These paths also create the opportunity for recreational loops and alternative transportation options. The secondary paths consist of on and off-road paths and have been broken down by neighborhood (refer to Map 5 - Neighborhood Connectors):

Western Residential Neighborhood

The Secondary Paths in this portion of town consist of on and off-road paths that connect Mountainview School, Malapardis Park, Hanover Green and the Route 24 ROW open space to both the East/West and North/South Spines. This sysem also allows a potential connection to the Morris Plains Train Station via the Route 24 ROW open space.

The roads identified as being part of the secondary routes include:

- | | |
|----------------------|---------------------|
| a) Cross Road | e) Mangar Road |
| b) Boulevard Road | f) Cyprus Drive |
| c) Ridgedale Ave | g) Sycamore Terrace |
| d) Cedar Knolls Road | h) Spruce Street |

Eastern Residential Neighborhood

The Secondary Paths in this portion of town consist mainly of on and off-road paths that connect Bee Meadow Park, Bee Meadow School, Reynolds Avenue Park, Memorial Junior High and Black Brook Park to the East/West Spine.

The roads identified as being part of the secondary routes include:

- | | |
|-----------------------|-------------------------|
| a) Bee Meadow Parkway | f) Manchester Drive |
| b) Parsippany Road | g) Highland Ave |
| c) Reynolds Ave | h) Grove Place |
| d) Troy Hills Road | i) South Beaumont Place |
| e) Griffith Drive | j) Algonquin Parkway |

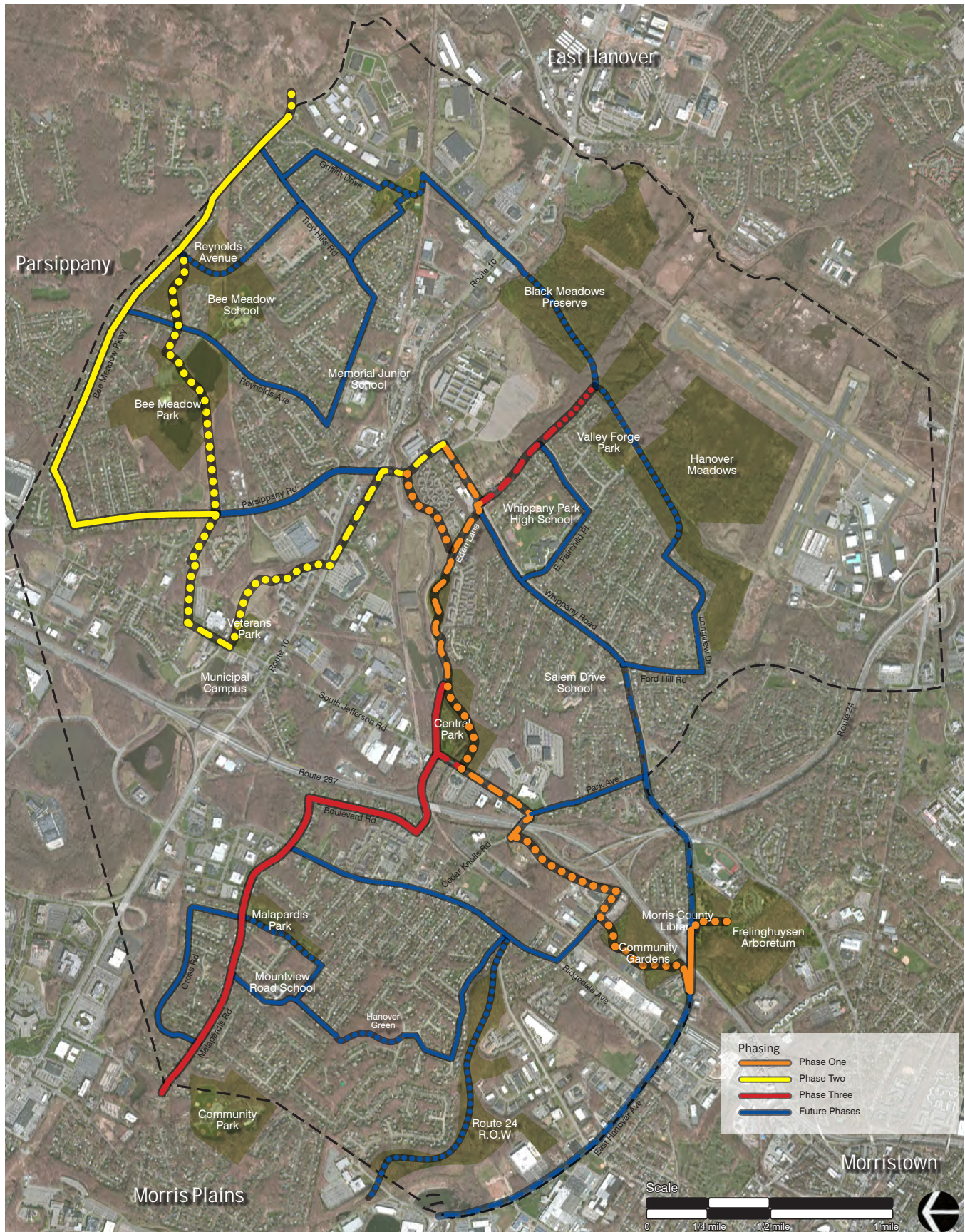
Southern Residential Neighborhood

The Secondary Paths in this portion of town consist of on and off-road paths that connect Salem Drive School, Whippany Park High School, Valley Forge Park, Hanover Meadows and the Black Meadows Preserve to both the East/West and North/South Spines.

The roads identified as being part of the secondary routes include:

- | | |
|-------------------------|-------------------|
| a) Whippany Road | d) Longview Drive |
| b) Park Ave | e) Ford Hill Road |
| c) East Fairchild Place | |

Map 6 - Phasing



Phasing

The phasing of the Bicycle & Pedestrian Connectivity Framework Plan (refer to Map 6 - Phasing) is predicated upon the hierarchy of the trail system and the facilities already existing as part of Patriots Path. The Patriots Path trail exists today and there are maintenance and operational agreements in place. In addition, it connects several key destinations and key development sites within the town and outside of the town to downtown Morristown. For this reason, this portion of the path from the Morris County Library to the intersection of Whippany Road and Parsippany Road should be planned and implemented first. The second phase completes the north/south spine and connects with the Town of Parsippany. By implementing these first two phases, one major spine through the entire town is completed, offering residents and businesses the greatest amount of access to the trail. The third phase should be the East/West spine. And the final phase will be the interconnection of the surrounding neighborhoods.

It should be noted that Phases do not have to be completed sequentially. Portions of various phases may be implemented simultaneously if the timing, funding or other factors deem this appropriate.

Bee Meadow Parkway



