

CITY OF SPRINGBORO
BICYCLE AND
PEDESTRIAN
PLAN
UPDATE 2020



ADOPTED 07/2/2020



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Adopted July 2nd, 2020

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OVERVIEW + PROCESS

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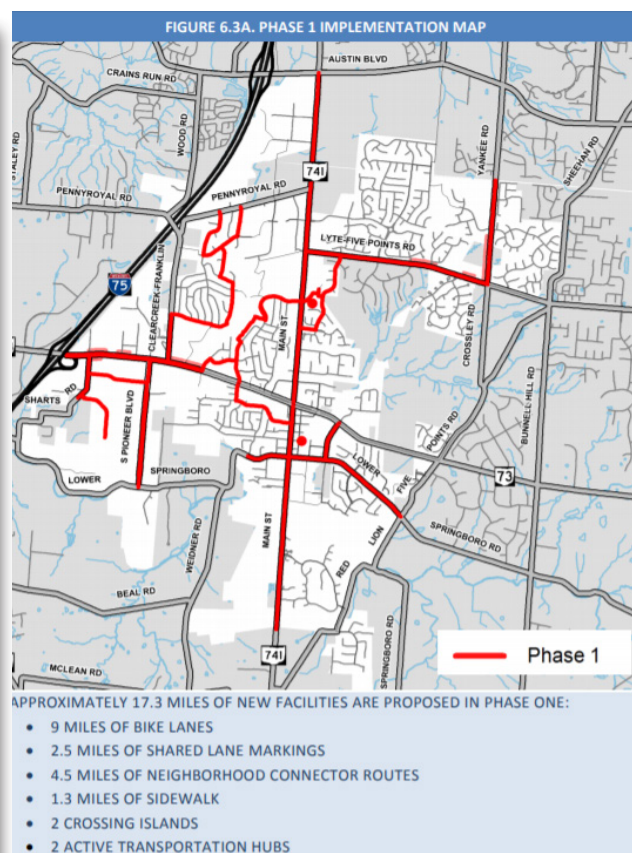
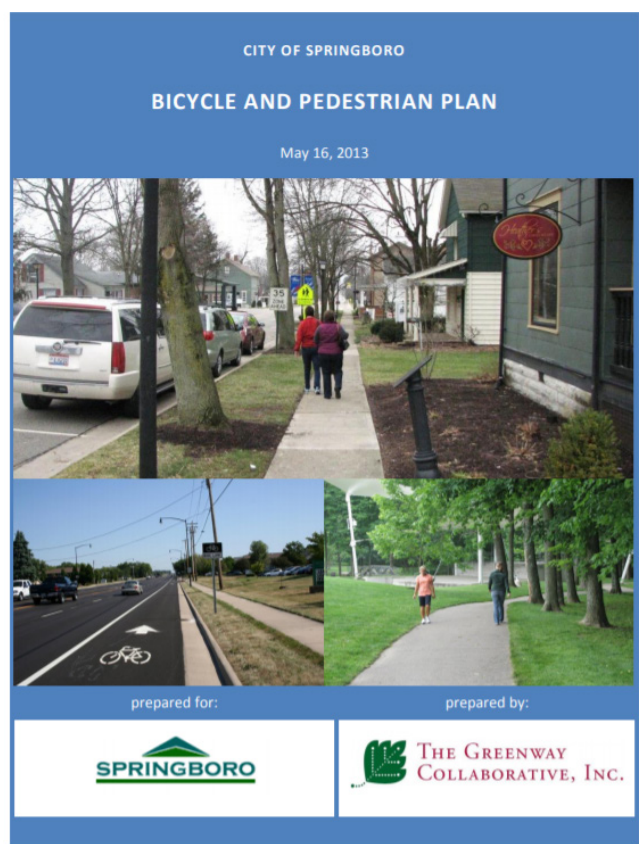
Why update the 2013 Plan?

In the past seven years, there have been significant changes nationally, regionally, and locally that warrant revisiting the plan.

- Numerous new national guides have been published by the Federal Highway Administration that reinforce the improvements that have been made, and provide guidance on new types of facilities.
- Phase 1 of the City of Springboro 2013 Bicycle and Pedestrian Plan is primarily complete. A lot of the easier and lower cost projects, such as bike lane conversions and signed bicycle and pedestrian routes, have been implemented and the city is ready to take the network to the next level.
- New regional trails, such as the Great Little Trail and Clear Creek Trail, are providing new opportunities for trail connections in Springboro.
- There has been an increase in walking and bicycling events in the city that foster a culture that supports the nonmotorized network.

With the current momentum behind the bicycle and pedestrian system, this is the right time to update the plan. A strong commitment by policy makers, staff and local residents to improving the bicycle and pedestrian system will help ensure that progress continues to be made.

Although some nonmotorized facilities currently exist, many more opportunities to improve the system have been identified in this plan. The update of the plan will focus on taking the bicycle and pedestrian network to the next level, providing recommendations for a system that is more family-friendly and provides better connections to parks and recreation.



This plan does not replace everything in the 2013 plan - it complements the original plan and identifies next steps for implementation

A lot has changed since 2013...



Rectangular Rapid Flash Beacons on South Main Street in 2019



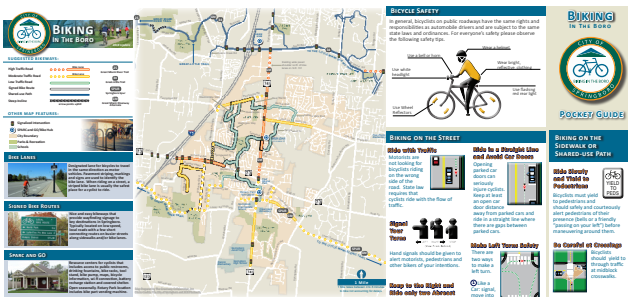
Green Bike Lanes on SR 741 in 2019



6.2 miles of Signed Bike Routes in 2015



7.2 Miles of Bike Lanes built since 2013



Biking in the Boro Maps in 2013, with updates in 2016, 2018 & 2020



Walking and Bicycling Events throughout the year



Installed bike racks through the Bicycle Friendly Business Program



Initiated bicycle friendly business program



2 SPARC and Go Locations

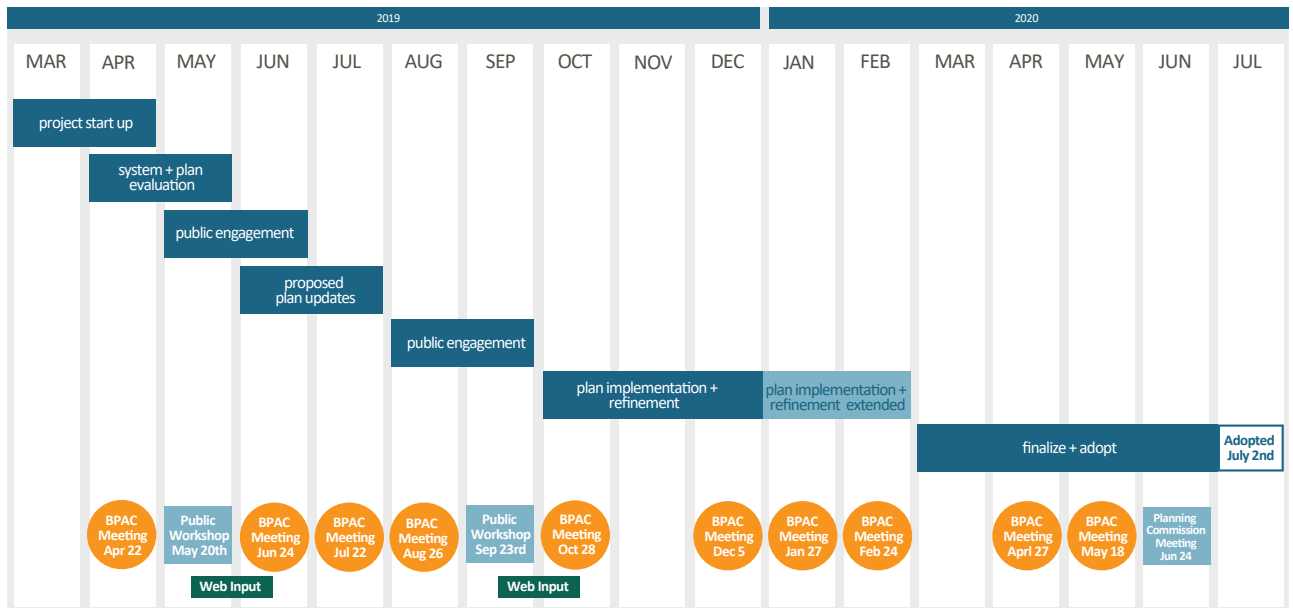
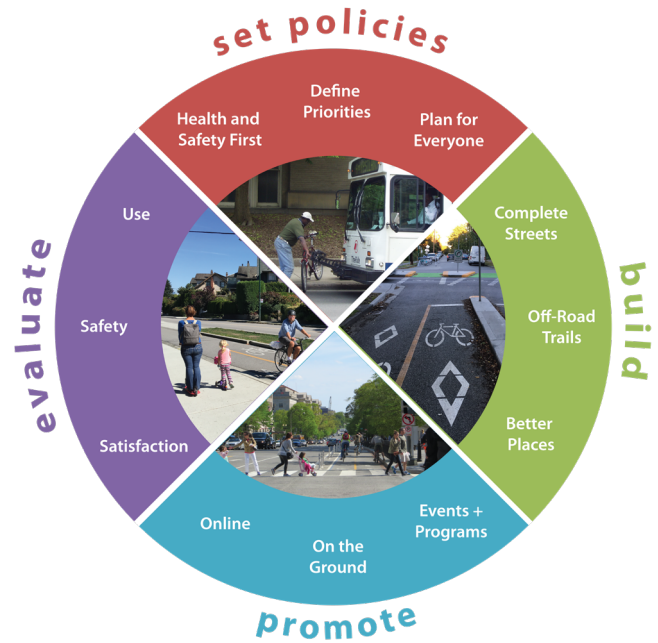


Awarded Bronze Level Bicycle Friendly Community in 2016

Process

The update of the Springboro Bicycle and Pedestrian Plan was a 17-month process, with the majority of work and meetings occurring in 2019. The project schedule was extended into 2020 to allow more time to review route alternatives. Meetings were held regularly with the Bicycle and Pedestrian Advisory Committee (BPAC) to review plan progress. Two public workshops were held, along with online input opportunities to gather input from the public. The plan update was adopted in July 2020.

A successful process considers the following: policies that set the stage; a built environment that provides the opportunities; promotion efforts that change the status quo; and evaluation efforts that help us understand what worked. It is an iterative process, where evaluation informs a refinement and expansion of the plan in the future. Take care of these objectives and all other issues will fall into place naturally.



Project was extended into 2020 to provide staff and BPAC more time to review the draft plans and routing alternatives



Bicycle & Pedestrian Advisory Committee

The BPAC was established in 2009 and has been instrumental in implementing the City of Springboro Bicycle and Pedestrian Plan. For the 2020 plan update, the BPAC acted as a steering committee and met regularly to help guide the process.

Members

Dan Boron - Staff
David Ciesko
Lynne Collins
*John Davies**
*Janet Irvin**
Candi Morris
John Nelson
Cindy Sitzman

**past member*

Major Plan Elements



Focus on creating a **central greenway** linking the city's parks and to the regional trail system



Expand the offerings for pedestrians and bicyclists with **different types of facilities**



Complete and upgrade the **existing pedestrian and bicycle networks** with a focus on user safety, comfort and neighborhood linkages



Enhance through **events, education and enforcement**

VISION:

An attractive, family-centered community where people of all ages and abilities can comfortably explore, via foot and bicycle, Springboro's rich natural and cultural heritage

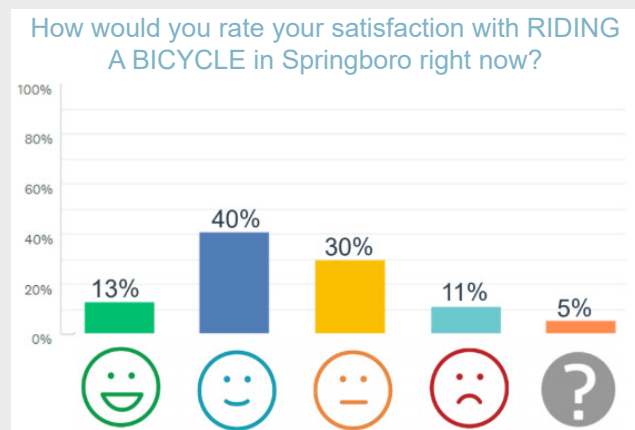
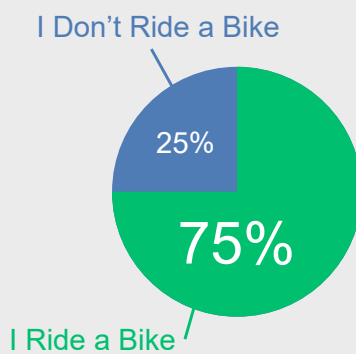
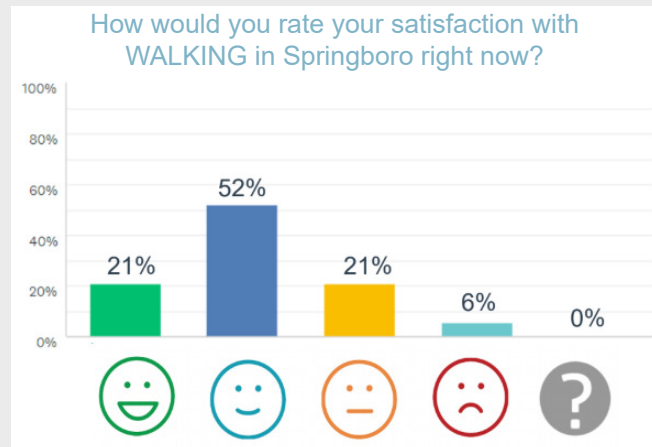
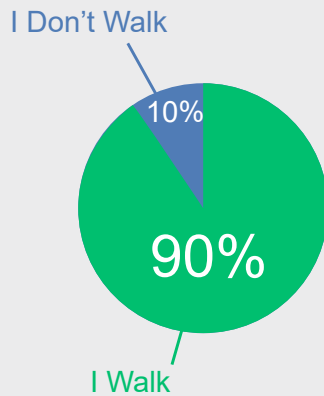
Engagement + Input

- A **project website** was developed and used to share project updates with the public. All project materials were posted to the website and online surveys and crowdsourcing maps were available through the website for public input.
- A **project kickoff meeting** was held with city staff and local stakeholders which included a lunch + learn discussion followed by a walking and biking tour of Springboro.
- Two **public workshops** were held at Community Room to gather input on the plan. Workshops included a short presentation followed by opportunities to provide input and mark-up maps.
- Monthly meetings with the **Bicycle and Pedestrian Advisory Committee** were held to help guide the development of the plan.
- **105 surveys** were completed through the project website or during a public workshop and **48 comments** provided through the **online crowdsourcing map**
- Meetings were held with **adjacent communities** and **Miami Valley Trails** to coordinate nonmotorized plans
- The plan was presented and promoted at multiple community events including **Bike the Boro**, **National Trails Day**, **Christmas in Springboro**, and **Hometown Expo**



Input gathered during the planning process...

The next few pages provide a brief summary of what was heard during the planning process; full details can be found in appendix or viewed at WalkBike.Info/Springboro.



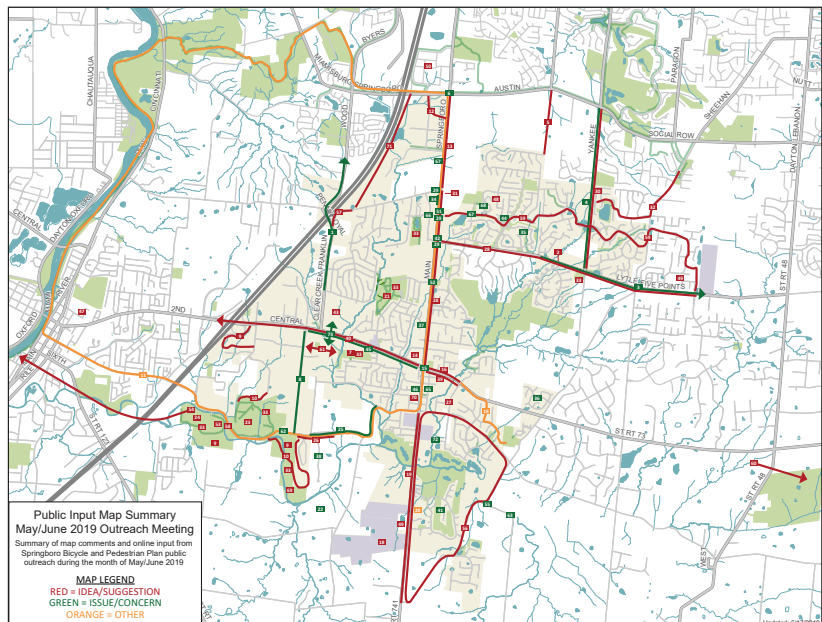
What would you like to see changed?

- More bike lanes/shoulders; provide vertical dividers between road and bikes
- More off-road trails (paved and unpaved)
- Improve connectivity; connect to parks and existing trails
- More opportunities for families and children to bike
- Better signage/education to get drivers out of bike lanes
- Improve intersections on SR 741 and SR 73
- More nature trails/running trails in parks
- Interconnection of existing parks for walkers, bikers and runners
- Repair sidewalks and complete sidewalk gaps
- Pedestrian Access to new performing arts center
- More public restrooms
- Enforce speed limits
- Trim overgrown vegetation
- Public education and enforcement
- Improve crosswalks - flashing lights, pavement markings, signs



Below is a summary map and list of key findings from public comments and online input during public outreach in May and June of 2019

- More off-road trails and trails in parks- pump tracks, mountain bike trails, hiking
- Improve connections:
 - between parks, neighborhoods and downtown
 - along and across SR 73, SR 741, Lytle Five Points, and West Lower Springboro Rd
 - to Great Little Trail/Austin Landing
 - to Schools





What Makes the City of Springboro Special?

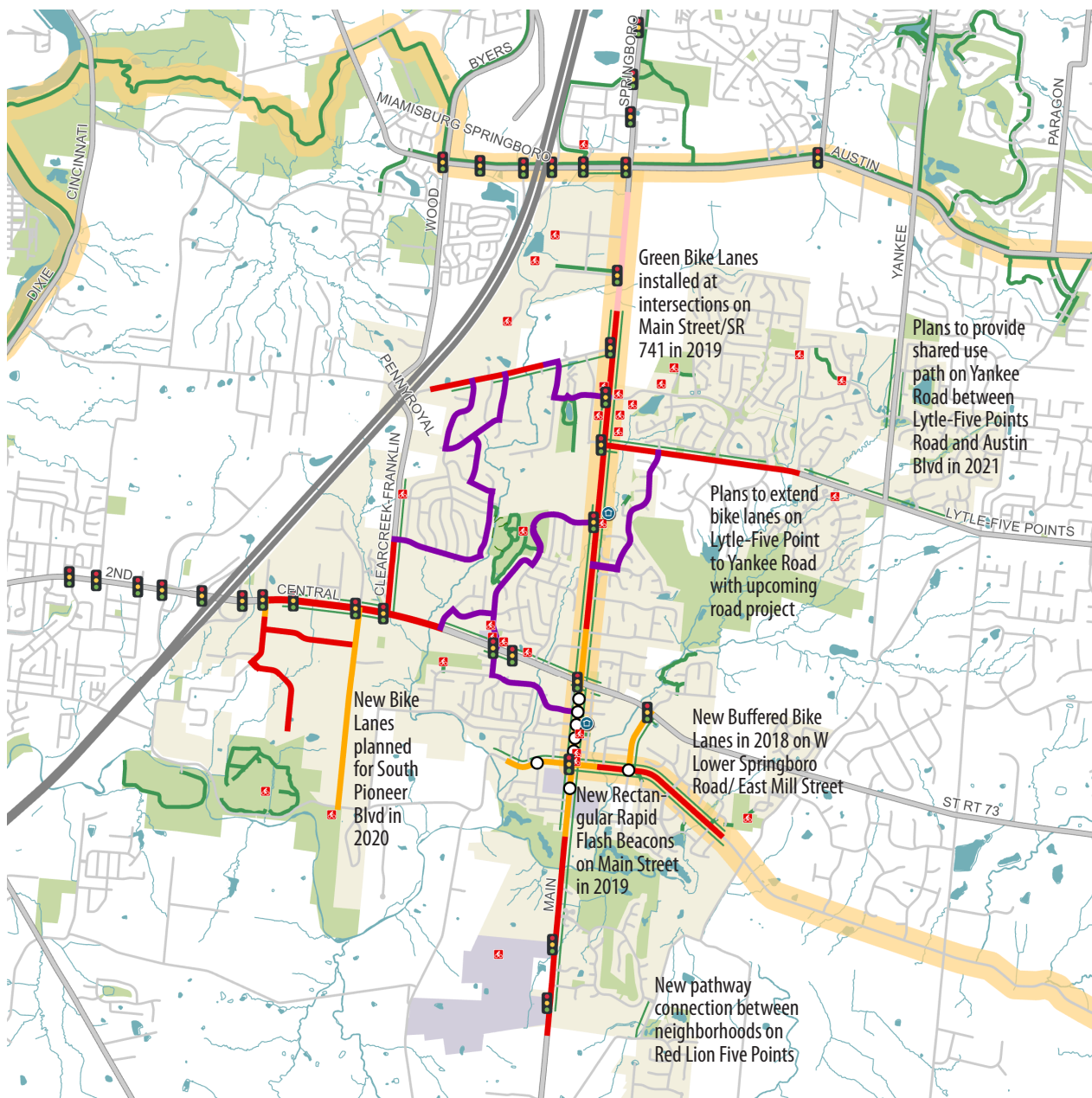
Meeting participants were asked to list what they love about Springboro. This wordcloud summarizes those responses. The plan should complement these things.

safe **parks** **community** pride
 walkable historic downtown **people**
bicycling family infrastructure schools
 well maintained **friendly** city services

➤ Full details on the public outreach efforts can be found in the digital appendix

Inventory + Analysis Updates

2019 Existing Nonmotorized Network



8.9 miles of Bike Lanes

6.2 miles of Signed Bike Routes

3 miles of Shared Lane Markings

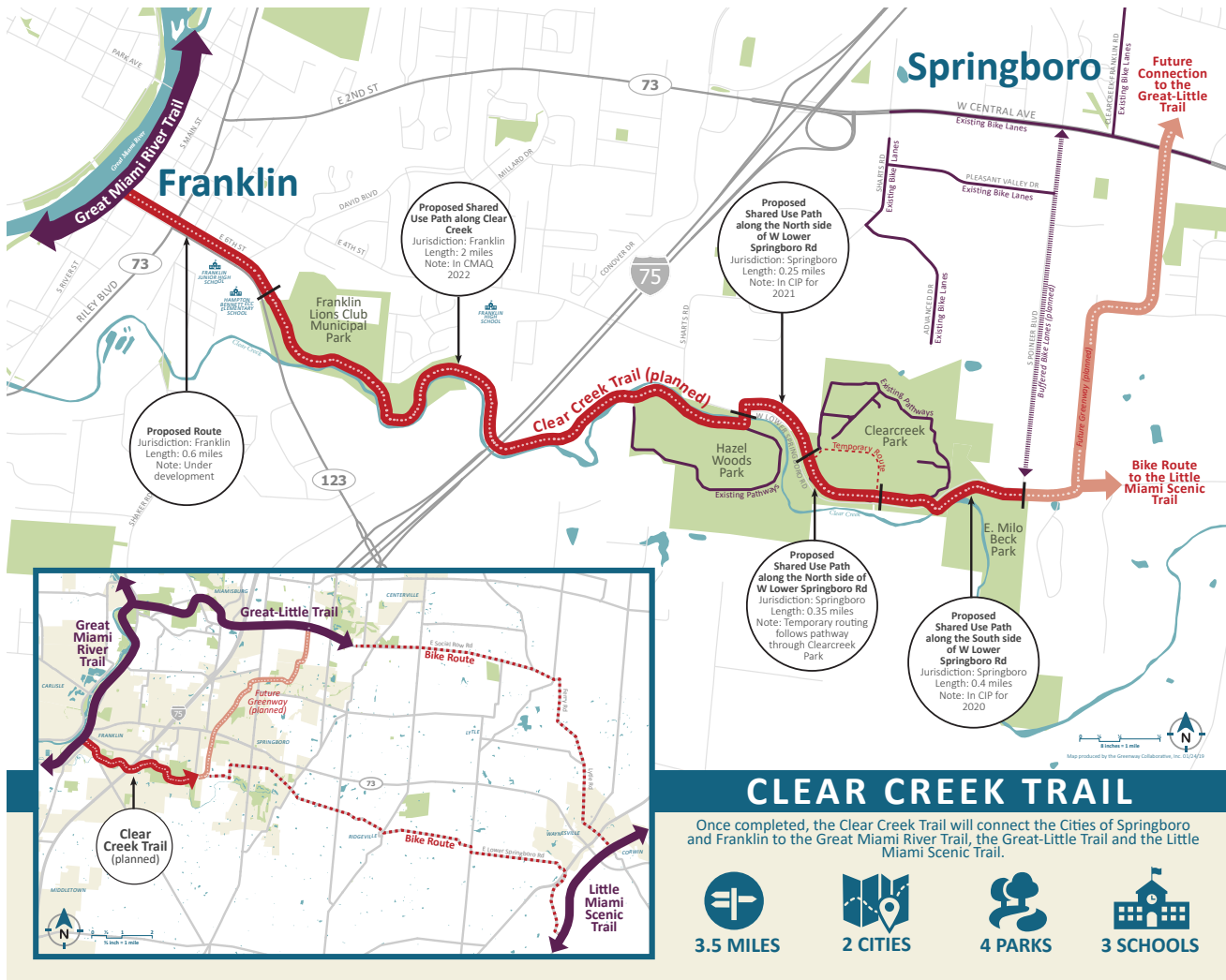
2 SPARC and Gos

5 miles of Shared Use Pathways

LEGEND

- Bike Lane
- Paved Shoulder
- Shared Lane Markings
- Shared Use Path
- Signed Bike Route
- Designated Regional Routes
- ⬮ Signalized Intersection
- Pedestrian Crosswalk
- ⦿ SPARC and Go
- Bike Parking

Development of Regional Trail Connections



Since 2013, development of the regional trail network surrounding Springboro has taken off. Below is a summary of some of those efforts:

- **Great Little Trail connection complete**
- **Development of the Clear Creek Trail in Franklin programed for 2022**
- **Great Miami Riverway Alternative to the Underground Railroad Bicycle Route**
- **New pathways built and bike routes planned in Washington Township that connect to the City of Springboro**

Refer to the **Appendix D** of the **2013 Plan** for detailed inventory and analysis information

Building a Bicycle + Pedestrian Network

The rule of thumb is the greater the volume and speed of traffic, the greater degree of separation. Potential conflict points need to be addressed not just with motor vehicles but also between bicycles and pedestrians.

➤ Greenways

The foundation of a low stress network that works for all ages and abilities. Bicycles and pedestrians are separated in high use areas.

Examples: Paved trails, shared use paths, natural surface and fire trails



➤ Residential Streets

Some streets may be designated as neighborhood connectors or neighborhood greenways. Can combine neighborhood traffic calming with bike routes.

Examples: Signed bike routes, shared lane markings, marked crosswalks



➤ Moderate Volume/Speed Roadways

Pedestrians cross one lane at a time. Marking conflict areas and providing a buffer between vehicles and bikes.

Examples: Buffered bike lanes, rectangular rapid flash beacons, crossing islands



► Busy Roadways

Physical barriers, even minimal ones provide a sense of protection. A bike trail adjacent to a walkway can provide greater separation from street traffic.

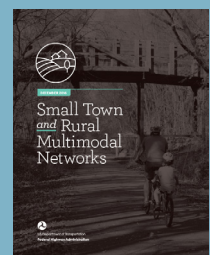
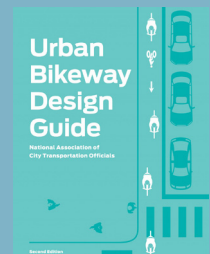
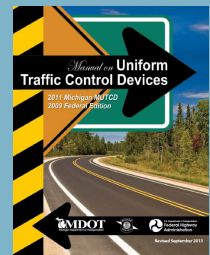
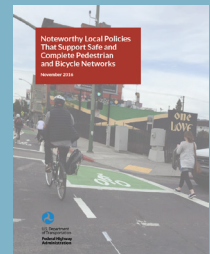
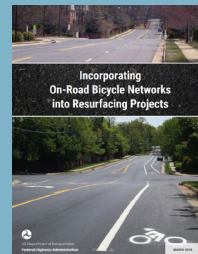
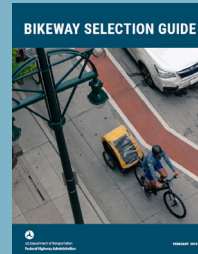
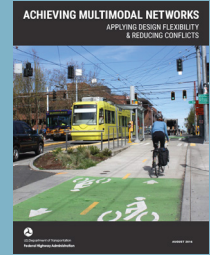
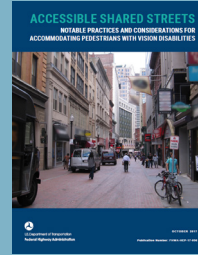
Example: Separated bike lanes, Pedestrian Hybrid Beacons



► Intersections

Minimize potential for conflicts with turning vehicles with signals just for bikes. Carefully thought out transitions between different types of facilities is critical.

Examples: Green Paint at Conflict Zones, Bicycle Signals



MANY DESIGN GUIDELINES
AVAILABLE THAT PROVIDE DETAILS
ON NEW FACILITIES AND BEST
PRACTICES



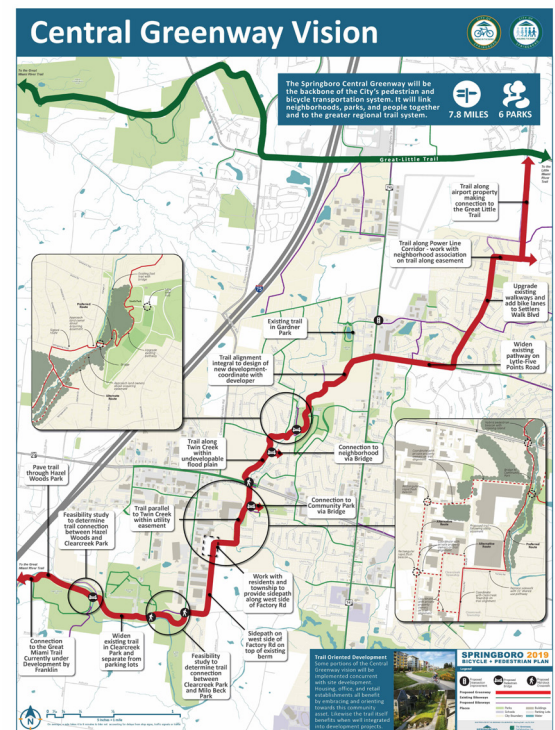
INFRASTRUCTURE

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Major Themes

The infrastructure recommendations are organized into three areas; The Central Greenway Vision, Recreational Trails and Proposed Network

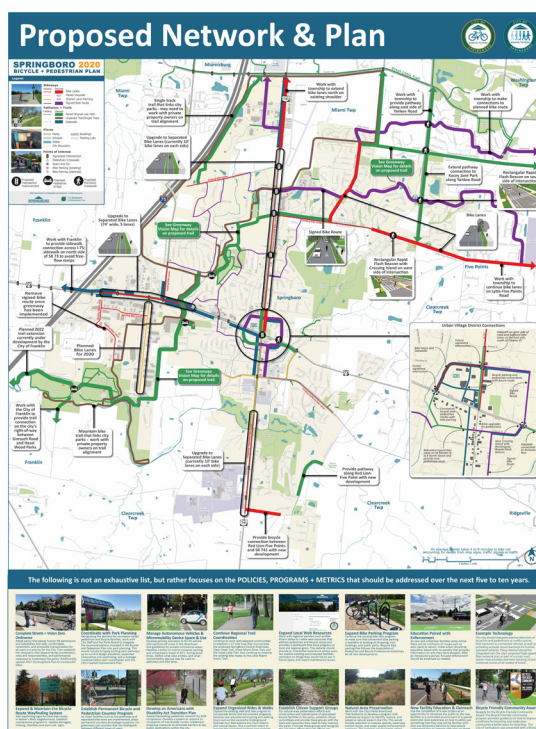
Large summary posters are available at walkbike.info/springboro



*The **Central Greenway** is the spine that links parks and neighborhoods*



*The **Recreational Trails** provide additional opportunities in parks linked by the Central Greenway*



The Proposed Network Plan
addresses transportation access
and safety needs across the city

Central Greenway Vision

Overview

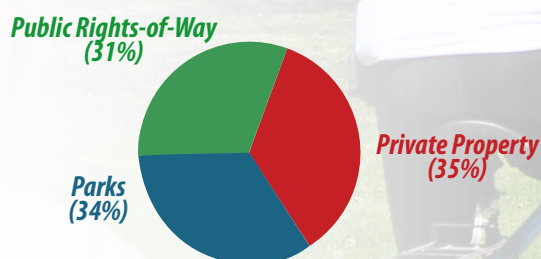
The Springboro Central Greenway will be the backbone of the City's pedestrian and bicycle transportation system. It will link neighborhoods, parks and people together and to the greater regional trail system. The greenway will be a family-friendly route, composed of shared use pathways, signed bike routes/bike lanes on neighborhood roads and safe road crossings.

Trail Oriented Development

Some portions of the Central Greenway will be implemented concurrent with site development. Housing, office and retail establishments all benefit by embracing and orienting towards this community asset. Likewise, the trail itself benefits when well integrated into development projects.

Easements & Property

The proposed greenway passes through City Parks, along road rights-of-ways and through private property.



About 2.5 miles of the proposed greenway is in private property, so easements or acquisition will be required. Fortunately, a majority of the proposed trails along private land could be implemented concurrent with new developments.

Alternatives

As with any master plan, big vision ideas are presented, and there is a good chance that routes may change as new information becomes available. Alternatives to the main greenway route are provided should new opportunities arise or changes need to be made to the primary route.

Large summary poster available at walkbike.info/springboro

Central Greenway Vision

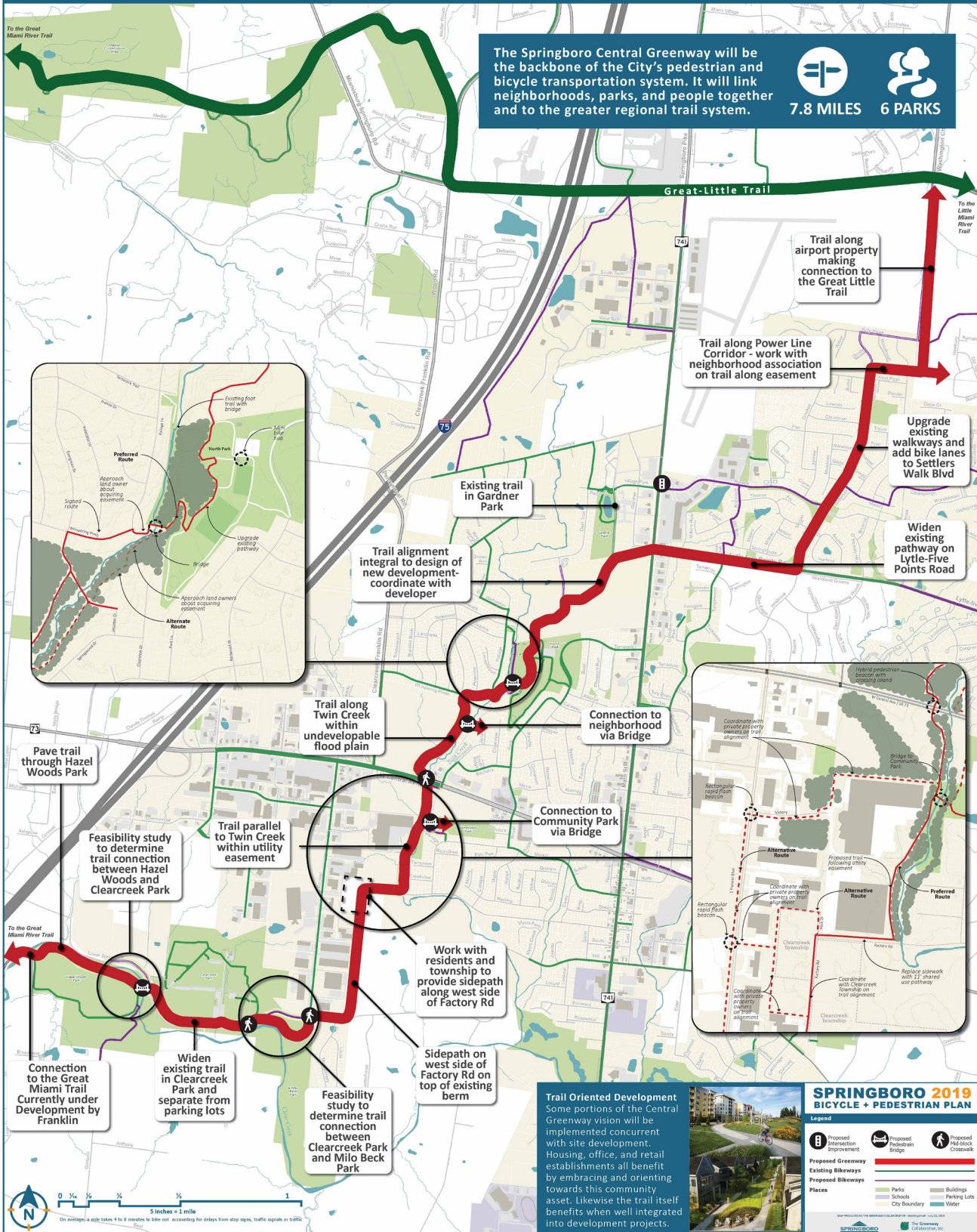


The Springboro Central Greenway will be the backbone of the City's pedestrian and bicycle transportation system. It will link neighborhoods, parks, and people together and to the greater regional trail system.



7.8 MILES

6 PARKS

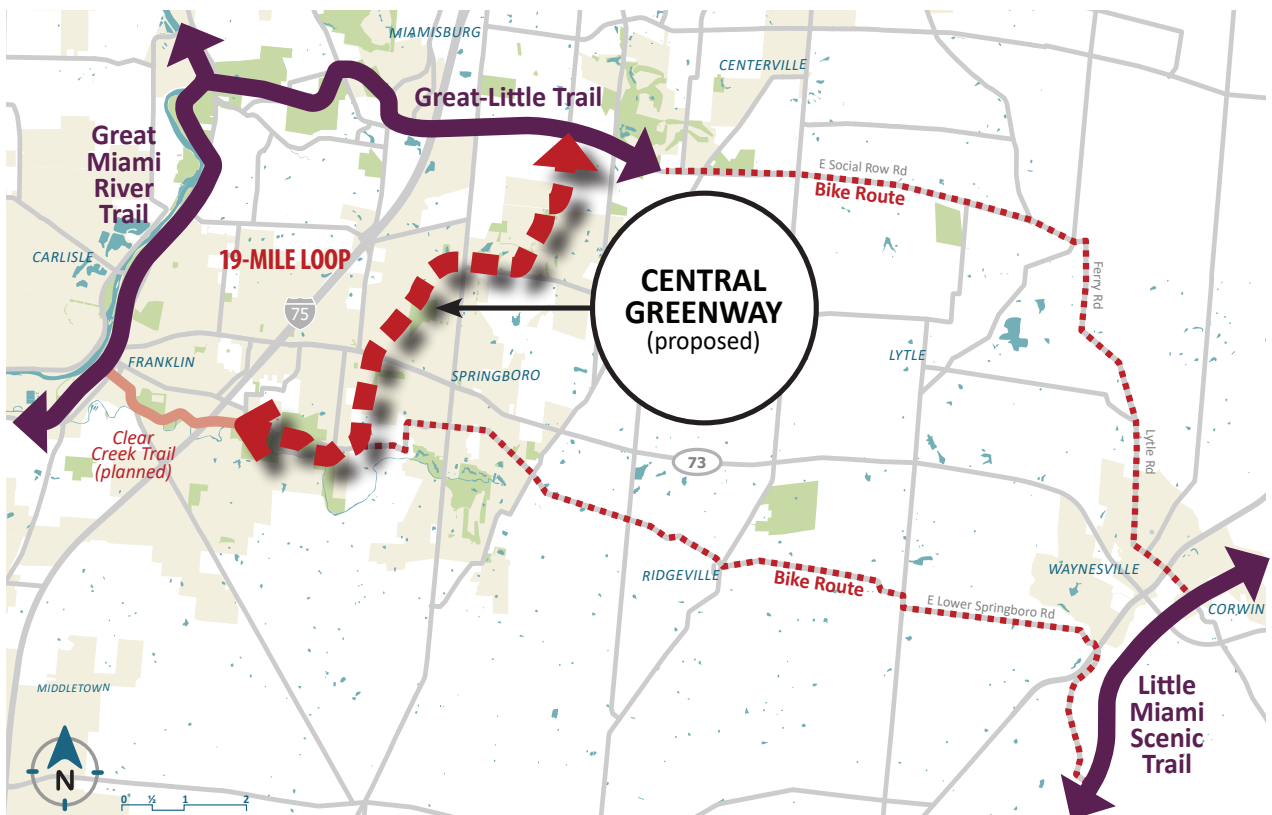
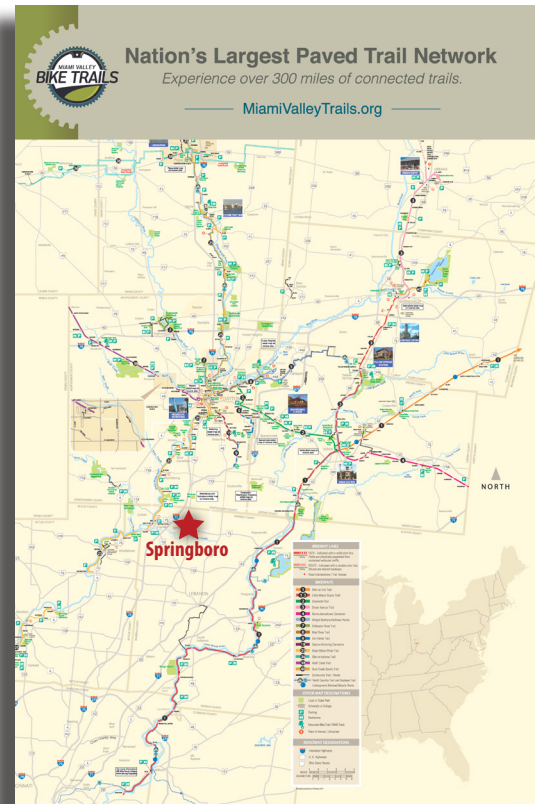


The Central Greenway is the spine that links parks and neighborhoods

Connecting to the Region

One of the main goals of the Central Greenway is to provide a direct connection from the City of Springboro to the Great Little Trail and Great Miami Trail, which are part of the Miami Valley Trail System. Ohio's Miami Valley region has one of the nation's largest paved trail networks with over 340 miles of paved, multi-use recreational trails. Stretching across county lines, these trails connect schools, parks, historic landmarks, area attractions and travel through meadows, scenic countryside, forested areas and city centers.

Once completed, the Central Greenway would complete a 19-mile paved trail loop, when combined with segments of the Great Little Trail, Great Miami Trail and planned Clear Creek Trail in Franklin.





Central Greenway Overview Map



7.8 MILES

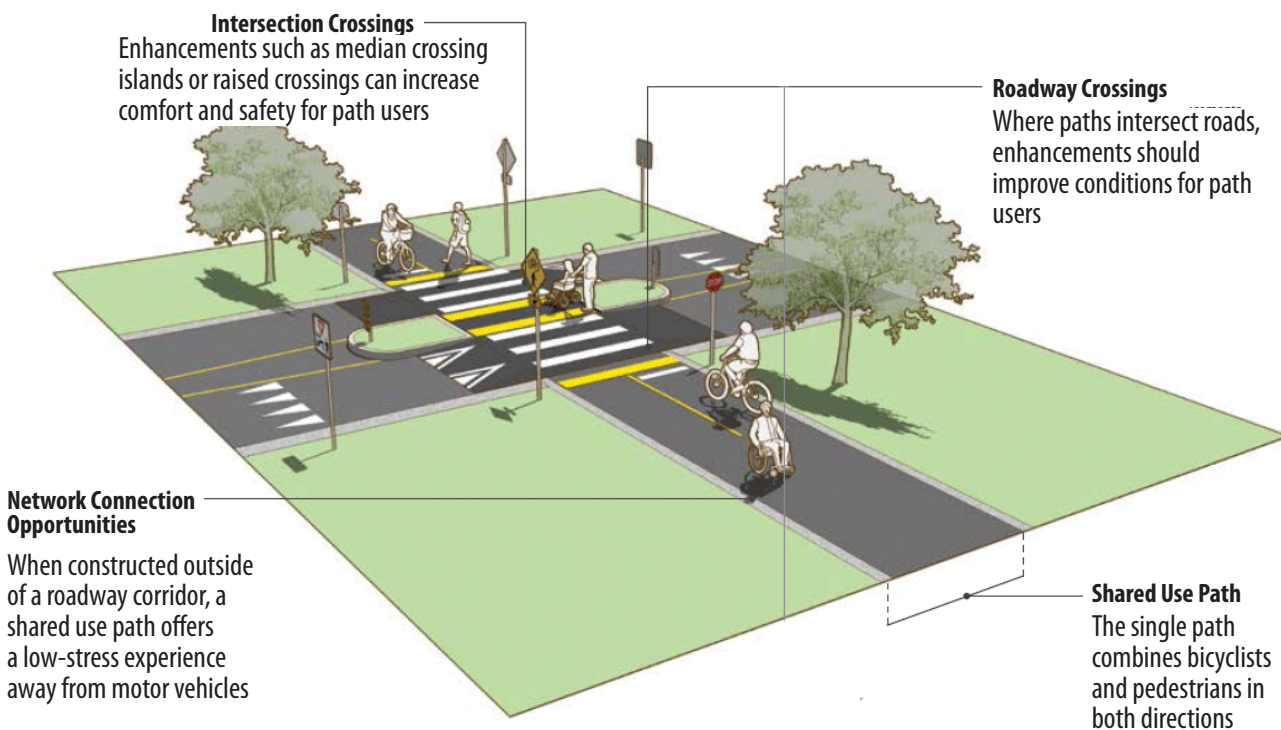


6 PARKS



19-MILE LOOP

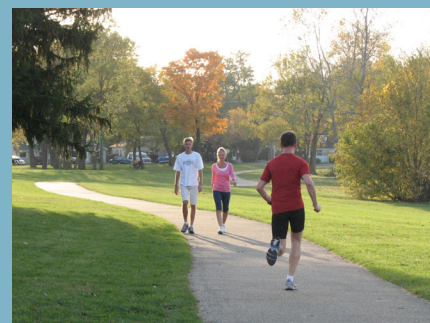
Example Shared Use Path



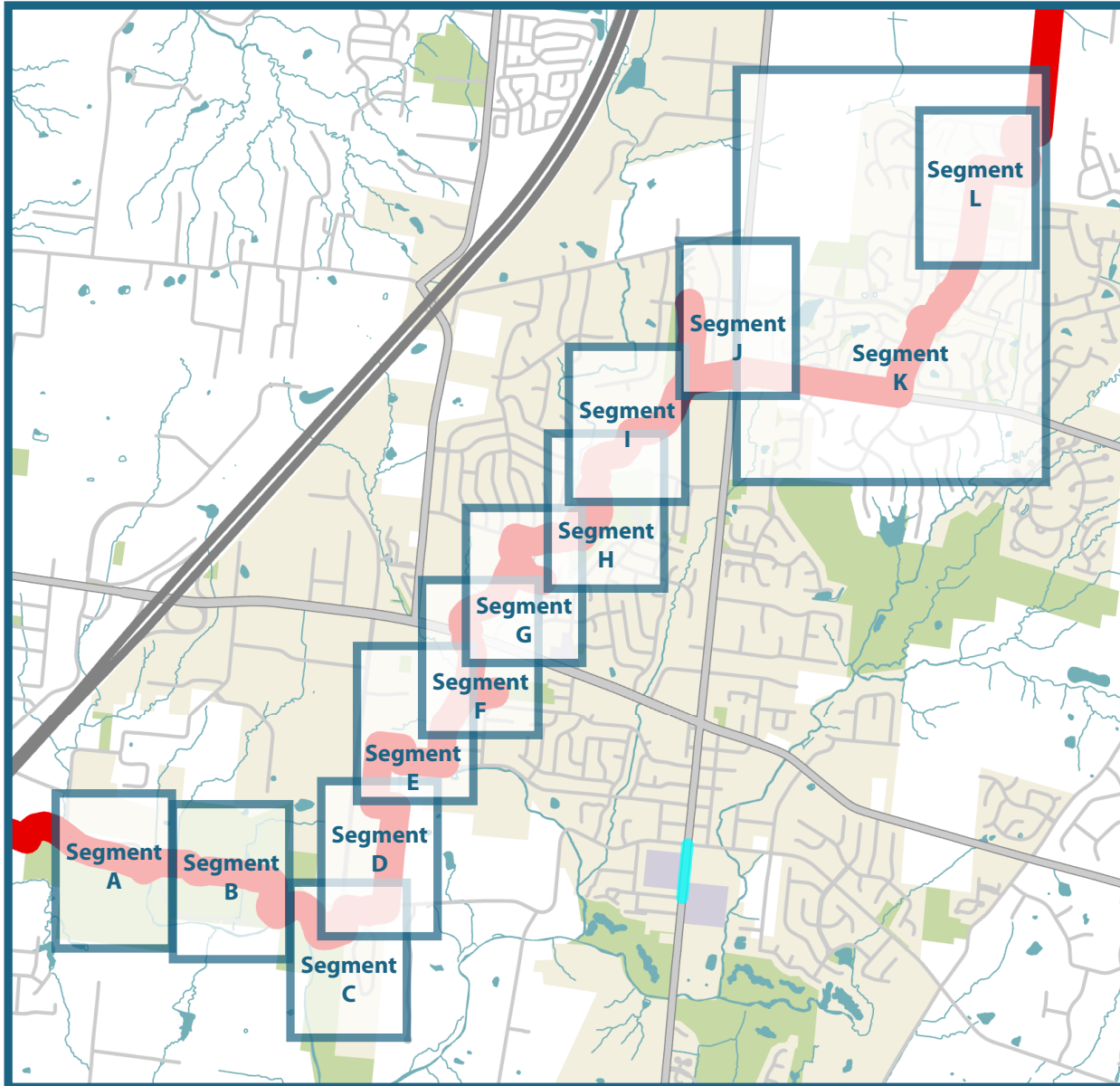
The majority of the Central Greenway will be a shared use path facility. A shared use path provides a travel area separate from motorized traffic for bicyclists, pedestrians, skaters, wheelchair users, joggers, and other users. These facilities are often located in parks, along rivers, and in greenbelts or utility corridors where there are few conflicts with motorized vehicles. Shared use paths can provide a low-stress experience for a variety of users using the network for transportation or recreation.

A shared use path that is located immediately adjacent and parallel to a roadway is referred to as a sidepath. Sidepaths can offer a high-quality experience for users of all ages and abilities as compared to on-roadway facilities in heavy traffic environments. Operational and safety concerns exist where sidepaths cross driveways and intersections. Crossings should be designed to promote awareness of conflict points, and facilitate proper yielding of motorists to bicyclists and pedestrians.

**Source: Federal Highway Administration
Small Town and Rural Multimodal Networks**



Central Greenway Segment Map

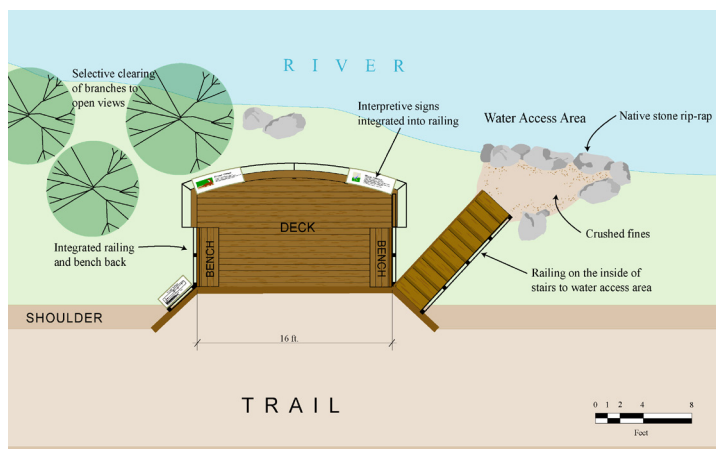


Refer to the “Implementation” Chapter on page 59 for details on each segment of the greenway



Potential Central Greenway Trail Amenities

Trail amenities encourage trail use by providing a comfortable, convenient and safe place to commute and recreate. The following are a few examples of some of the trail amenities that could be incorporated into the Central Greenway.

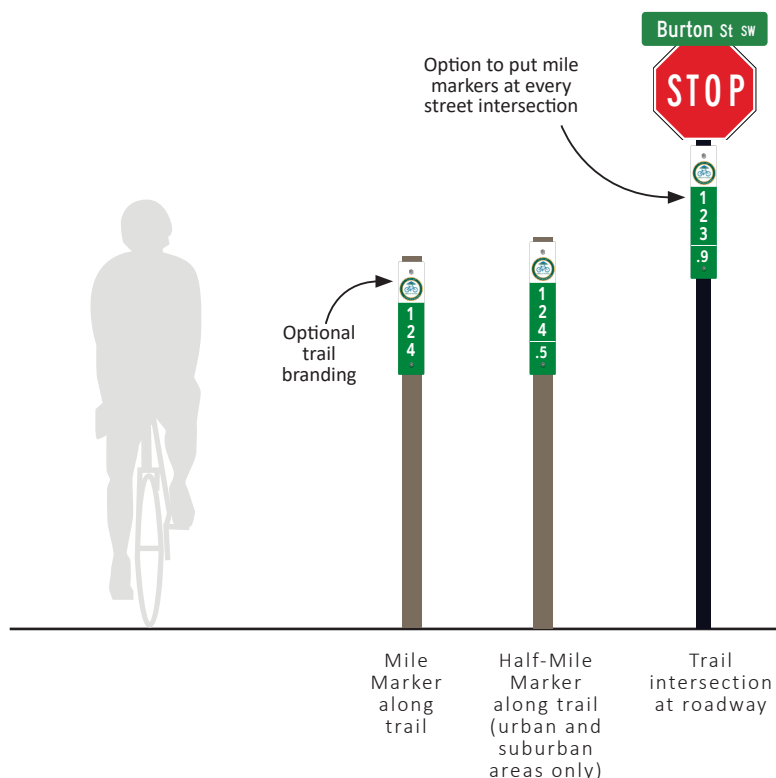


Overlooks

The Central Greenway parallels Twin Creek in a number of places. To preserve sensitive riparian vegetation while providing access to the waterfront overlooks should be provided along the trail. These overlooks also provide opportunities for interpretive signs as well as a place to rest along the trail.

Mile Markers

Trail mile markers provide a uniform reference system along the trail. This system allows trail users to benchmark distance traveled and can be referenced on trail maps and guides. The integration of branding provides reinforcement that users are on the intended trail. With the prevalence of cell phones, mile markers have for the most part replaced the need for emergency call boxes. They assist 911 dispatchers in effectively directing emergency services to locations along the trail.



Benches, Tables and Trash/Recycling Receptacles

Benches and tables provide places for users to rest along the trail. Often times these are placed in shaded areas to protect users from the sun. Trash/recycling receptacles should be placed nearby to encourage users to keep the trail clean and discourage litter.



All site furnishings should be placed at least two feet back from the edge of the trail and on a concrete pad.

Bicycle Parking

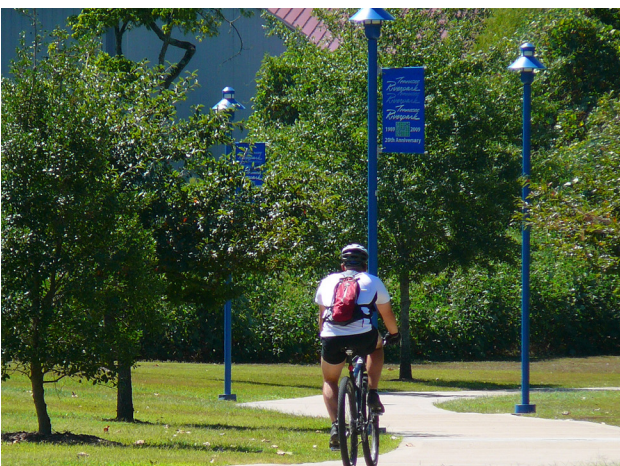
Bicycle racks should be provided at critical locations such as restrooms, trailheads, parking areas and local businesses. Providing bike racks helps to discourage users from parking their bikes in unwanted areas.



The bicycle racks should be placed and spaced in compliance with the APBP Bicycle Parking Design Guidelines where any part of a parked bicycle is at least two feet back from the edge of the trail.

Lighting

Trail lighting extends the number of hours most people would feel comfortable using a trail, especially during the shorter fall and winter days. Lighting also improves the ability to see potential hazards and enhance the sense of security for trail users. While highly desirable, lighting costs about as much as the trail itself. Solar powered trail lights are becoming a more popular option due to their lower operating costs where there is sufficient direct sunlight.



Trailheads Signs

Trailhead signs are placed where users are likely to begin or end their journey and at key junctures along the way. The Central Greenway has the advantage of having numerous parks along its route that are defacto trailheads. Trailhead signs should be placed within the existing parks to help orient users to the trail network and amenities within the park.



Recreational Trails

Overview

Springboro has spectacular parks with hundreds of acres of open space and natural areas that can be used for recreational trails. The key is to provide the appropriate facility in the right location. Throughout the planning process it was stressed that there is a strong desire to keep E. Milo Beck Park and Gardner Park more natural and passive. Whereas, North Park and Community Park should be programmed for more active recreation that serves the nearby neighborhoods.

Walking + Wayfinding

It is recommended that the city expand walking trails in parks and provide wayfinding and interpretive signs. There are opportunities to expand on the existing nature trails in North Park, and to provide new natural surfaced single track hiking trails in Hazel Woods Park, Clearcreek Park, and Community Park.

Many of the existing trails are hidden from plain sight. Trail head signs should be provided where nature trails meet paved trails and/or parking areas. There are also opportunities to incorporate interpretive signs that illustrate cultural, historical or natural aspects of the area. Based on input received during the planning process, there are local community members who would be interested in contributing information for the interpretive sign boards.

Bike Features

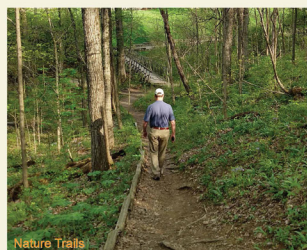
Recommendations for new bike features in parks came from public input. There is a group of community members who would love to see more bicycle opportunities for children, teenagers and families in the City. Beyond the basic linear trail or bike lane, some residents expressed the desire to see more bike features in parks, such as pump tracks, mountain bike loops and BMX street areas. These bike features could be designed for all age groups and skills levels with different features in each City park. Check out “The Boro Enduro” on page 30 for recommendations on bike features in parks.

Large summary poster available at walkbike.info/springboro

Recreation Trails



Interpretive Trails



Nature Trails



Wayfinding

walking + wayfinding in City Parks

North Park

- Natural Area Restoration
- Trailhead Signs
- Wayfinding
- Natural Interpretation

Community Park

- Natural Area Restoration
- Trailhead Signs
- Wayfinding
- Natural Interpretation

Clearcreek Park

- Natural Area Restoration
- Historical Signs

E. Milo Beck Park

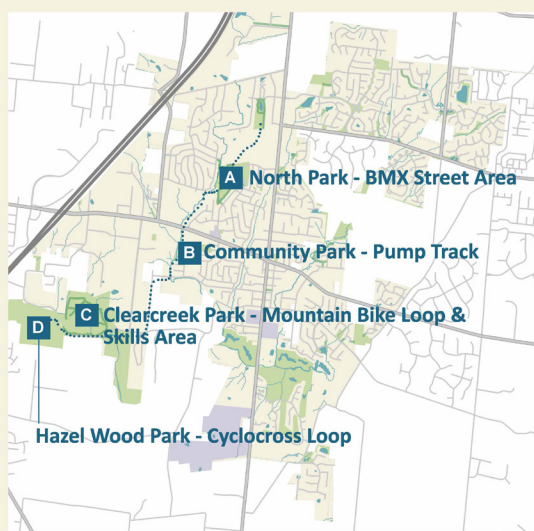
- Trailhead Signs
- Natural Interpretation

Hazel Woods Park

- Trailhead Signs
- Natural Interpretation

BORO ENDURO

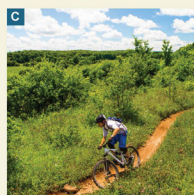
A family-friendly cross-city bike route that links bike features in parks. Each park contains different obstacles and challenges for all ages and skill levels. Users have the option to visit different parks along the bike route if they wish for a longer mileage experience.



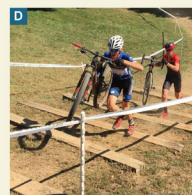
North Park - BMX Street Area
An area of manmade obstacles dedicated to Street BMX. Includes features such as poles, handrails, steps, ledges, curved walls and architectural oddities.



Community Park - Pump Track
A continuous loop of dirt berms and mounds where riders build momentum as they roll around the track without pedaling. Pump tracks can be designed for cyclists of all ages and skill levels.



Clearcreek Park - Mountain Bike Loop with Skills Area
Off road single track trail that is typically one-way travel with a mixture of climbs and descents. Route options that provide a variety of balancing, jumping and pumping opportunities for all skill levels.



Hazel Woods Park - Cyclocross Loop
A cyclocross course may feature a variety of surfaces and obstacles that may require a bicyclist to dismount and remount their bicycle.



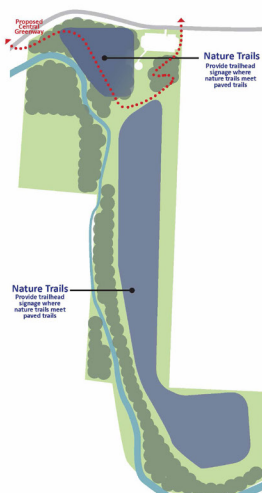
Gardner Park



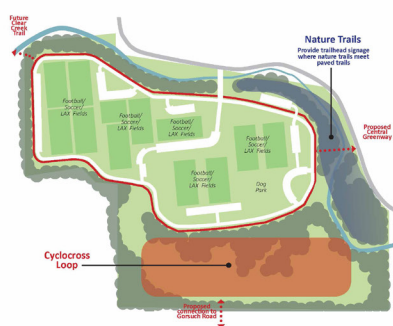
North Park



Community Park



E. Milo Beck Park



Hazel Wood Park



Clearcreek Park

The Recreational Trails provide additional opportunities in parks linked by the Central Greenway

The Boro Enduro

A family-friendly cross-city bike route that links bike features in parks. Each park contains different obstacles and challenges for all ages and skill levels. Users have the option to visit different parks along the bike route if they wish for a longer mileage experience.



North Park - BMX Street Area

An area of man-made obstacles dedicated to Street BMX. Includes features such as poles, handrails, steps, ledges, curved walls and architectural oddities.



Community Park - Pump Track

A continuous loop of dirt berms and mounds where riders build momentum as they roll around the track without pedaling. Pump tracks can be designed for cyclists of all ages and skill levels.



Clearcreek Park -Mountain Bike Loop with Skills Area

Off-road single track trail that is typically one-way travel with a mixture of climbs and descents. Route options that provide a variety of balancing, jumping and pumping opportunities for all skill levels

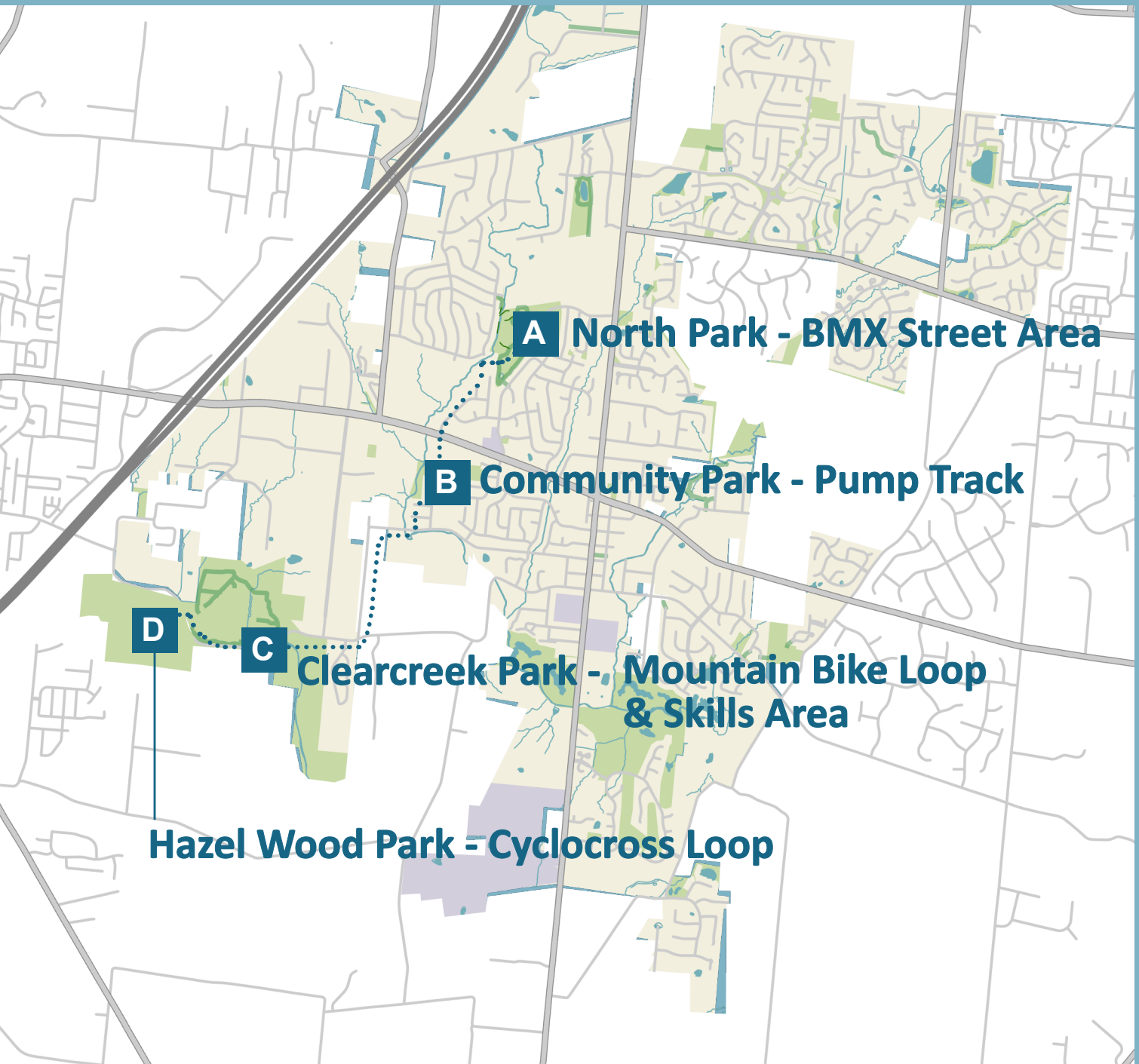


Hazel Woods Park - Cyclocross Loop

A cyclocross course may feature a variety of surfaces and obstacles that may require a bicyclists to dismount and remount their bicycle.

*Potential bike features in parks have been presented.
Further analysis is required to determine feasibility and design options.*

BORO ENDURO



Hazel Woods Park Recreation Trails



In 2016, the City acquired a 108-acre parcel which became Hazel Woods Park. Within the past few years a new bridge and pathway have been built, with plans to provide sport fields. There are also plans for the future Clear Creek Trail in Franklin to connect to the northwest side of the park. There is potential to provide mountain bike trails and nature paths through the undeveloped area on the south end of the park. A future connection to Clearcreek Park is desired either along West Lower Springboro Road or by crossing Clear Creek at the east side of the park as part of the proposed central greenway.



Cyclocross Loop

A cyclocross course may feature a variety of surfaces and obstacles that may require a bicyclists to dismount and remount their bicycle.



Walking & Wayfinding

- Trailhead signs
- Natural Interpretation
- Nature Trails

Clearcreek Park Recreation Trails



Clearcreek Park is 137.5 acres in area and features a variety of athletic fields. There are opportunities for mountain bike trails and a skills area in the wooded area at the north end of the park. The wooded area along the east side of the park has beautiful old trees and topography, making it an ideal location for nature trails. The proposed central greenway cuts through the center of the park and would provide connections to both Hazel Woods Park and E. Milo Beck Park.



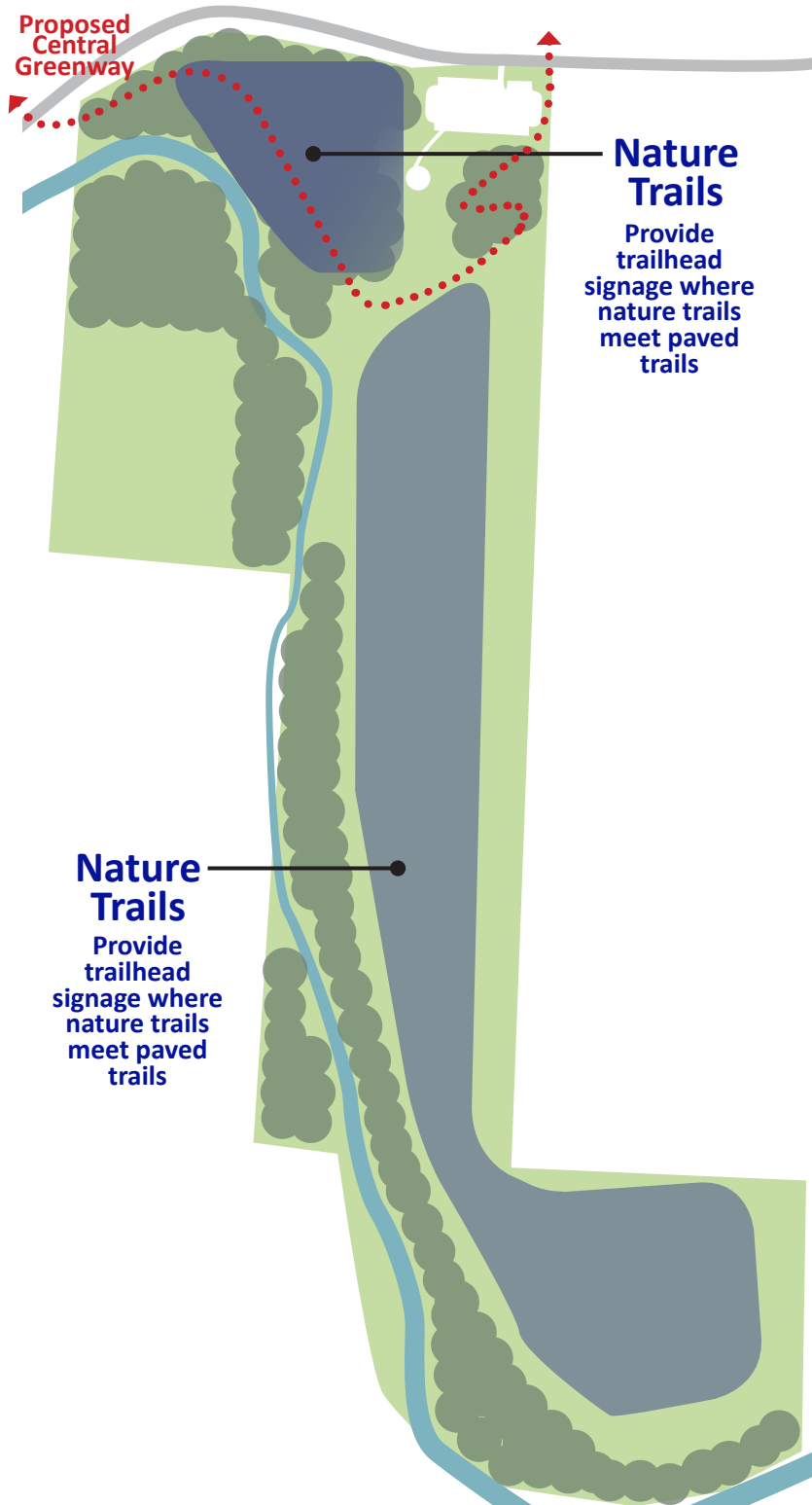
Mountain Bike Loop & Skills Area

Off-road single track trail that is typically one-way travel with a mixture of climbs and descents. Route options that provide a variety of balancing, jumping and pumping opportunities for all skill levels.



Walking & Wayfinding

- Natural Area Restoration
- Historical Signs
- Nature Trails



E. Milo Beck Park Recreation Trails

E. Milo Beck Park is 85 acre with an overlook area and walking trails. It is a passive park with a mix of wooded areas and prairie. There may be opportunities to expand the parks nature trails and provide interpretive signs. Feasibility studies are underway for the proposed central greenway connection through the park. No other bicycle features are proposed in this park, as there is a strong desire to keep it a more natural and passive experience.



No Bike Features in this Park

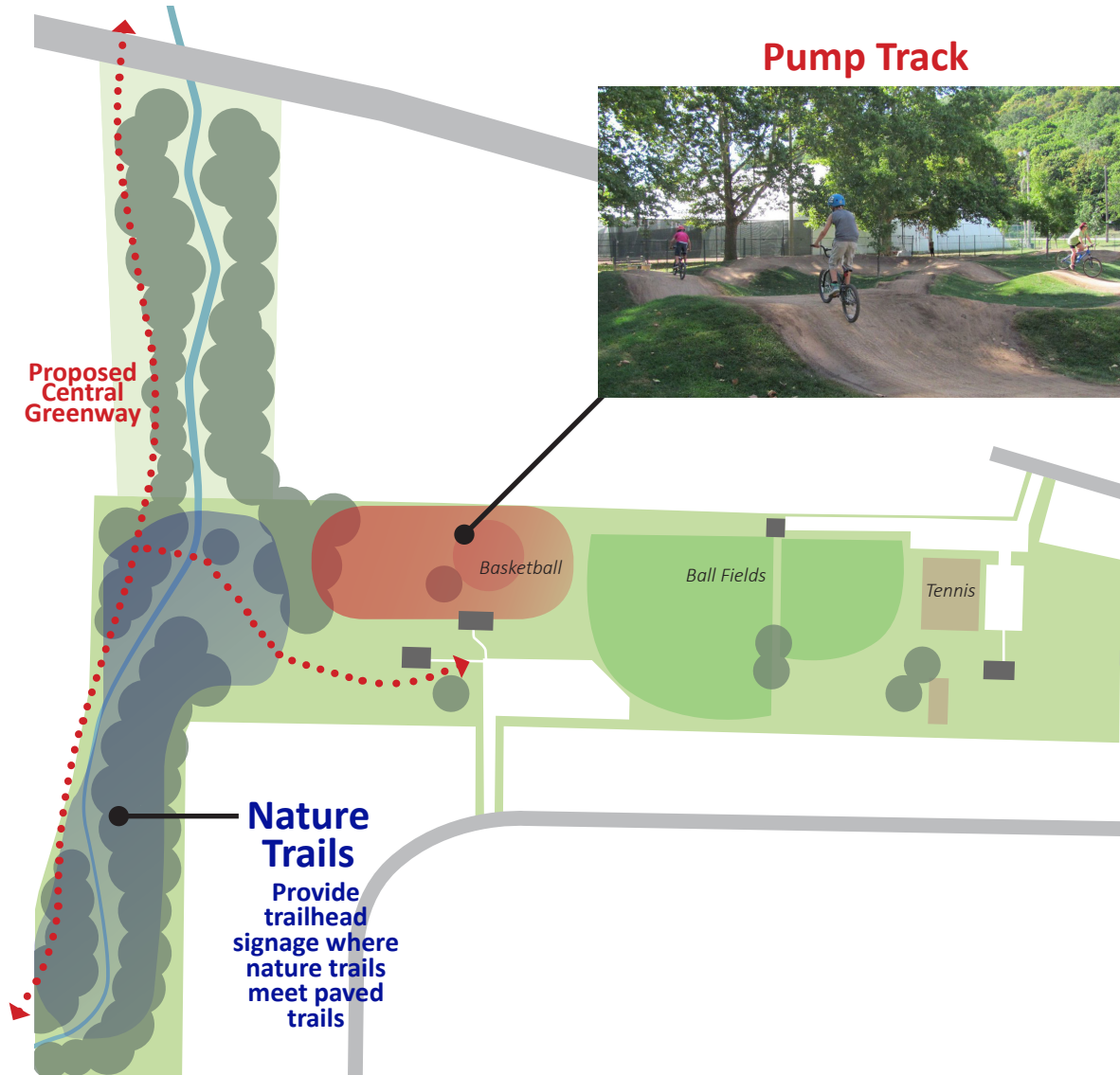
Aside from the proposed Central Greenway trail, desire to keep this park more natural and passive



Walking & Wayfinding

- Trailhead signs
- Natural Interpretation
- Nature Trails

Community Park Recreation Trails



Community Park is 18 acres and features a variety of athletic fields and courts on the east side of the park. The west side of the park is more passive with large trees and a creek running along the edge of the property. There is a strong desire by local residents to build a pump track at Community Park and there may be opportunities to provide nature trails through the wooded area along the creek. A bridge over the creek would be required to connect Community Park to the proposed central greenway. The central greenway is proposed along a sewer easement along the west side of the creek. Creek overlooks along the central greenway can provide access to Twin Creek.



Pump Track

A continuous loop of dirt berms and mounds where riders build momentum as they roll around the track without pedaling. Pump tracks can be designed for cyclists of all ages and skill levels.



Walking & Wayfinding

- Natural Area Restoration
- Trailhead Signs & Wayfinding
- Natural Interpretation
- Nature Trails

North Park Recreation Trails



North Park is 39 acres and features a variety of athletic fields and courts, along with a 0.9 mile trail loop. There may be opportunities to enhance the existing nature trails in the wooded area with interpretation signs and provide a paved pathway connection to Whispering Pines as part of the central greenway. A BMX Street Area, similar to one in Lebanon, Ohio could be featured in this park.



BMX Street Area

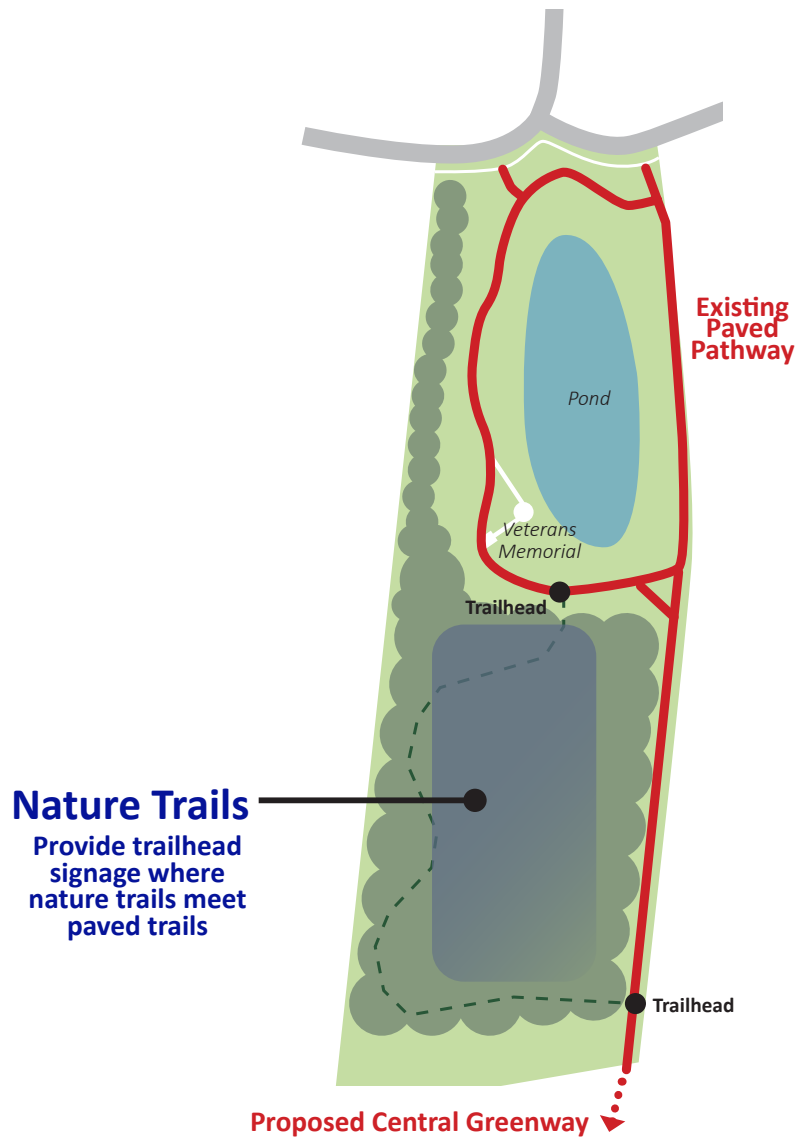
An area of manmade obstacles dedicated to Street BMX. Includes features such as poles, handrails, steps, ledges, curved walls and architectural oddities.



Walking & Wayfinding

- Trailhead signs
- Natural Interpretation
- Nature Trails

Gardner Park Recreation Trails



Gardner Park features a 0.35 mile paved trail, pond and veterans memorial. There was a strong desire expressed by the public to keep the 16-acre park as a passive park. There may be an opportunity to provide nature trails in the wooded area at the south end of the park. Long term plans are to connect the southern end of the trail into the proposed central greenway.



No Bike Features in this Park

Desire to keep this park more natural and passive



Walking & Wayfinding

- Natural Area Restoration
- Historical Signs
- Nature Trails

Proposed Network

Overview

Nonmotorized transportation, commonly referred to as bicycle and pedestrian travel, is vitally important to Springboro residents. Walking and biking serves as a means of transportation - getting people to important places in their daily lives; and as a means of recreation - better connecting residents to nature and their community. The proposed improvements to the nonmotorized network focus on improving these connections and providing access for a wider range of users.

People Who Walk and Bike

There is no such thing as a typical bicyclist or pedestrian. A bicyclist or pedestrian may change their route based on the weather, comfort level, or purpose of their trip. When designing a network, it is important to provide a variety of options, so the user can pick a route best suited to their comfort and abilities.

The Nonmotorized Network

As noted in the first chapter, the City of Springboro already has the first phase of a nonmotorized network in place which provides a great foundation to build from. The existing network primarily consists of sidewalks and on-road bicycle facilities, including bike lanes on major roads and signed bike routes through neighborhoods. The next phase of the network should focus on developing more off-road and separated bicycle and pedestrian facilities, so a wider range of people will have access to the network.

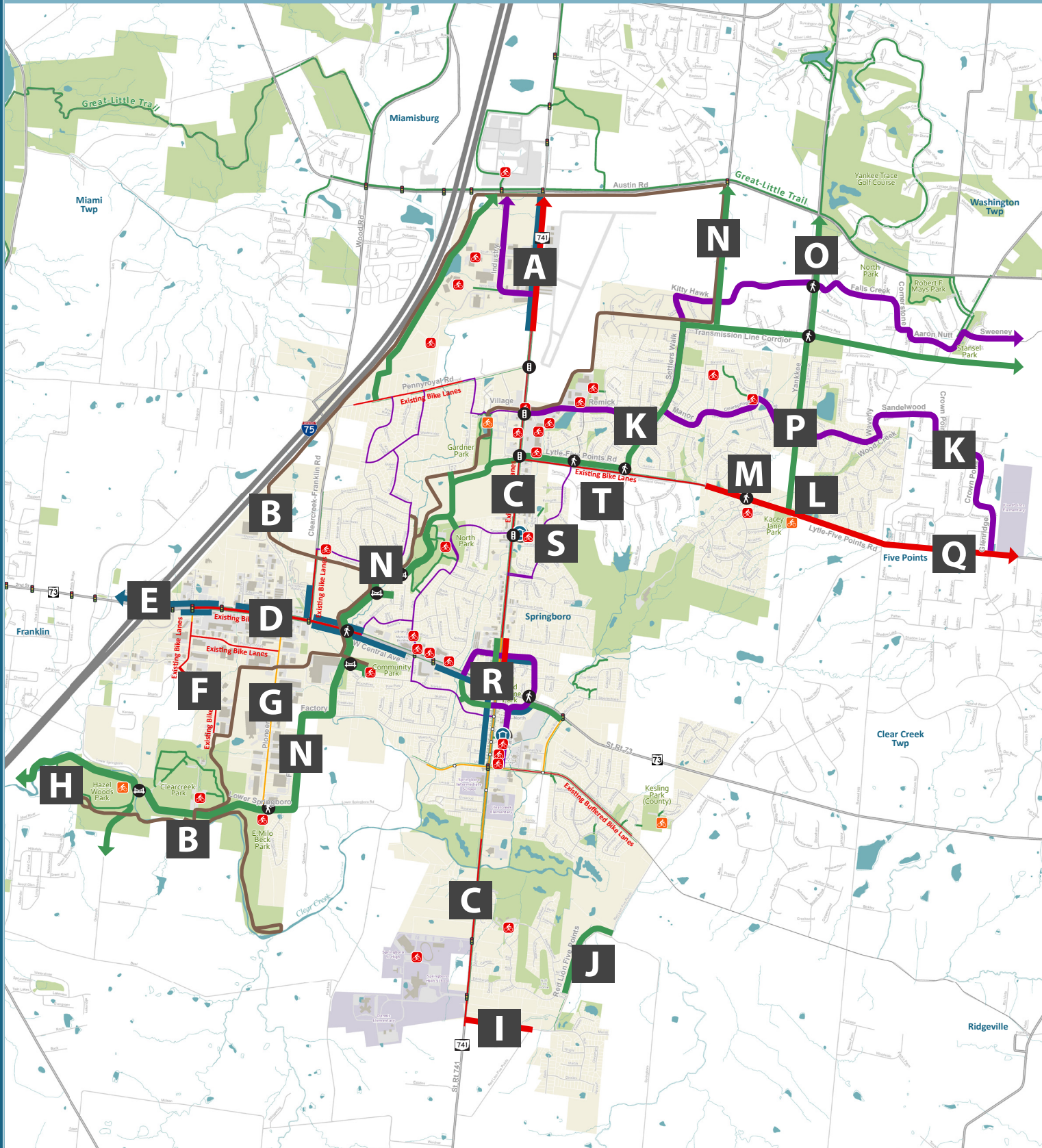
Infrastructure Opportunities

Regardless of the source of funding, it is advantageous for bicycle and pedestrian projects to be coordinated with other road and infrastructure projects. If included early in the planning and design phases of roadway projects, there is potentially more design flexibility and economies of scale. A number of communities and road agencies throughout Ohio have made significant progress by including pedestrian and bicycle facilities, striping, crosswalks, signals, ramps, signage, etc. into a larger road improvement project.

Large summary poster available at walkbike.info/springboro



Nonmotorized Network Map



Bikeways

Existing	Planned	
		Bike Lanes
	N/A	Paved Shoulder
	N/A	Shared Lane Marking
		Signed Bike Route

Pathways + Trails

Existing	Planned	
		Paved Shared-use Path
		Unpaved Trail
		Sidewalk

Places

	Parks
	Schools
	Water
	City Boundary
	Buildings
	Parking Lots

Points of Interest

	Signalized Intersection
	Pedestrian Crosswalk
	SPARC and Go
	Bike Parking (existing)
	Bike Parking (planned)



Proposed Intersection Improvement



Proposed Bike/Pedestrian Bridge



Proposed Mid-block Crosswalk

Map Notes:

- A** SR 741: Work with township to extend bike lanes north on existing shoulder
- B** Mountain Bike Trail: provide a mountain bike trail that links city parks (may need to work with private property owners on trail alignment)
- C** SR 741: Upgrade to separated bike lanes (currently 10' bike lane on each side)
- D** SR 73/West Central Ave: Upgrade to separated bike lanes
- E** Crossing I-75: Work with Franklin to provide sidewalk connection across I-75; sidewalk on north side of SR 73 to avoid free-flow ramps
- F** Advanced Drive: Remove signed bike route once greenway has been implemented
- G** South Pioneer: Planned bike lanes for 2020
- H** Hazel Woods Park: Work with City of Franklin to provide trail connection on the city's right-of-way between Gorsuch Road and Hazel Woods Park
- I** New Development: Provide bicycle connection between Red Lion-Five Points and SR 741 with new development
- J** Red Lion-Five Points: Provide pathway with new development
- K** Signed Bike Route: Provide signed bike route connecting neighborhoods in northeast area of city
- L** Lytle-Five Points Road and Yankee Road: Add bike lanes
- M** County Club Lane: Add rectangular rapid flash beacon with crossing island on west side of intersection
- N** Central Greenway: See Page 20 for details on proposed greenway
- O** Yankee Road: Work with township to provide pathway along east side of Yankee Road north of Waterbury Woods Drive
- P** Springs Blvd: Add rectangular rapid flash beacon on south side of intersection
- Q** Lytle Five Points Road: Work with township to continue bike lanes on Lytle-Five Points Road
- R** Urban Village District: See detail map for recommendations on Page 50
- S** Explore options for a direct trail connection between the SPARC and Go on SR 741 at Tamarack Trail and Tanglewood Dr
- T** On Lytle-Five Points Road, add crosswalks with Rectangular Rapid Flash Beacons at the intersections with Tanglewood Drive/Great Oak Drive and Settlers Walk Blvd/Innsbrook Lane.

NONMOTORIZED NETWORK FACILITIES

The nonmotorized network will build upon the central greenway and efforts completed during phase 1 of the 2013 bicycle and pedestrian plan. Proposed network improvements focus on expanding on the existing bike route system and improving safety and accessibility for people who walk and bike. The following pages summarize recommended nonmotorized facilities of the network plan.

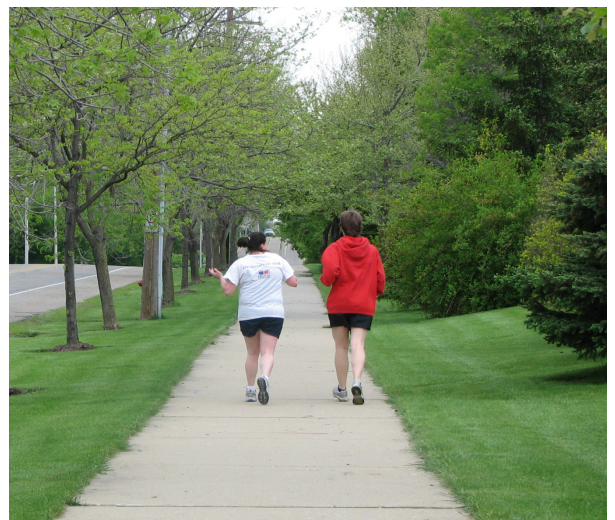


Sidewalks

Dedicated space intended for use by pedestrians. They are separated from a roadway by a curb or unpaved buffer space and typically constructed of concrete. Cost: \$200,000 to \$300,000 per mile for sidewalks on both sides.

Sidewalks should be set back from the roadway at least five feet from the back of curb and include street trees in the buffer.

Sidewalk gap improvements proposed for segments of SR 741, SR 73 and Yankee Road.





Signed Bike Routes

Local roads that provide low-stress connections to neighborhood destinations for people who walk and bike. These types of routes typically include wayfinding signs, traffic calming measures, and sometimes stormwater management features (like rain gardens). Crosswalk improvements may be needed where these routes cross major roadways. Cost: \$25,000 to \$125,000 per mile.

Expansion of the existing signed bike route is proposed along neighborhood roads through the northeast area of the city.



Shared Lane Markings

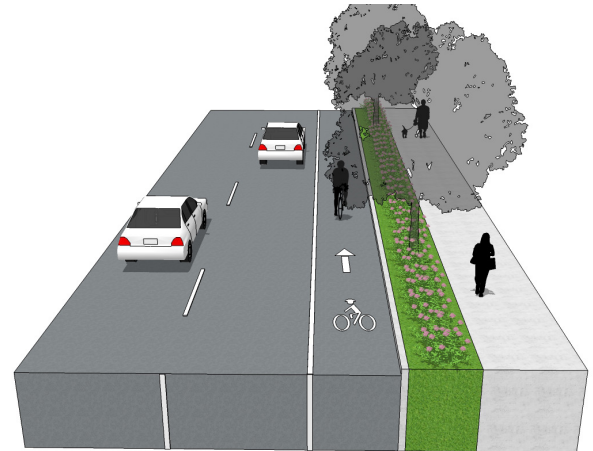
The shared lane marking is a pavement marking with a variety of uses to support a complete bikeway network; it is not a facility type and should not be considered a substitute for bike lanes, cycle tracks, or other separation treatments where these types of facilities are otherwise warranted or space permits. Cost: \$3,000 to \$6,000 per mile

In Springboro, shared lane markings could be used to supplement bike route wayfinding signs along low speed, low volume roadways.



➤ ***Bike Lanes or Micromobility Lanes, are portions of the road that have been designated through striping, signage, and pavement markings for the use of bicyclists, e-bikes, scooters, etc. Many times the lanes can be added to existing roads through lane narrowing or reducing number of vehicular travel lanes without effecting the existing curb. They typically run in the same direction as vehicular traffic. Described here are basic bike lanes, buffered bike lanes and separated bike lanes.***

Minimal

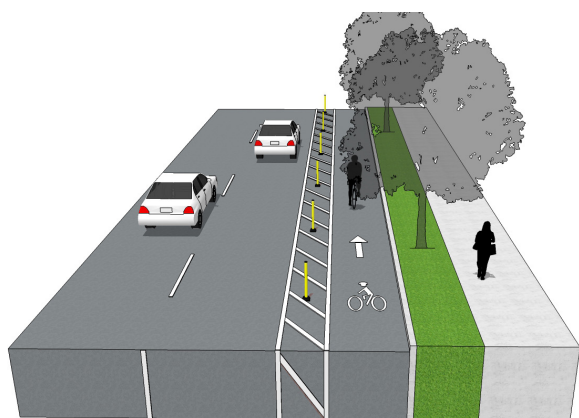


Basic Bike / Micromobility Lanes

Used on lower speed and volume roads where space is limited. An exclusive space for bicyclists located adjacent to vehicular travel lanes. They assist in facilitating predictable behavior and movements between bicyclists and motorists.



Enhanced



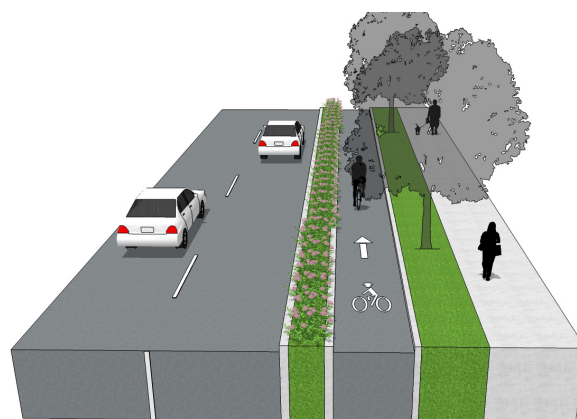
Buffered Bike / Micromobility Lanes

Often implemented with a road re-stripping or resurfacing project. Basic bike lane paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane. Provides greater distance between motor vehicles and bicyclists and appeals to a wider cross-section of bicycle users.

Separation may be enhanced with the addition of delineator posts. These may be placed every 30' - 40' along the entire distance or used more sparingly at intersections.



Optimal



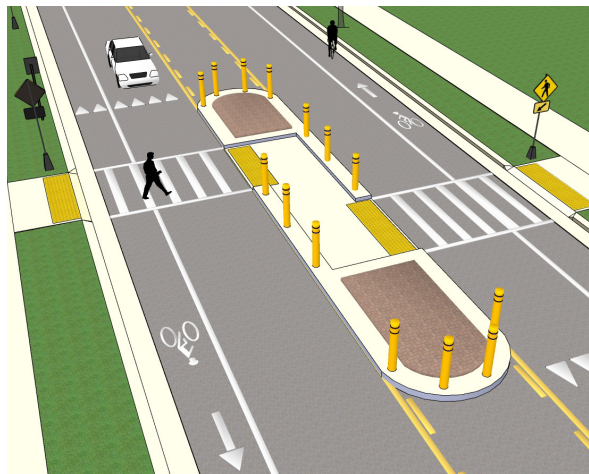
Separated Bike / Micromobility Lanes

Typically implemented as part of a road reconstruction project but can also be accomplished through the temporary use of planters, movable curbs or barriers. The lane can be at the street level, sidewalk level or somewhere in-between. May be combined with a parking lane or other barrier between the separated bike lane and the motor vehicle travel lane. Dedicates and protects space for bicyclists in order to improve perceived comfort and safety. Intersections must be carefully designed to minimize conflicts with motorized vehicles due to reduced visibility of the lanes.



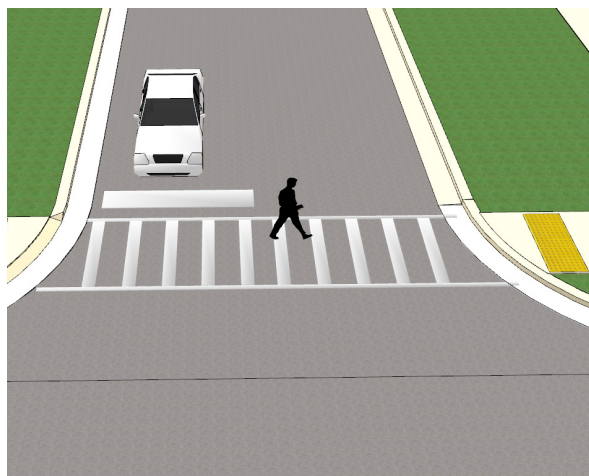


While safely moving various modes through and along corridors is important, getting vulnerable modes including pedestrians and bicyclists safely across corridors is essential. The examples here illustrate various ways to get people across corridors. Specific design treatments vary based on distance, speeds, volumes, etc.



Crossing Islands

Pedestrians only need to cross one direction of traffic at a time which is much safer and allows for more opportunities as they only are looking for a gap in traffic from one direction. The island provides a strong visual indicator to motorists of the crosswalk. Often used in conjunction with rectangular rapid flash beacons. Cost: \$15,000 to \$20,000 each.



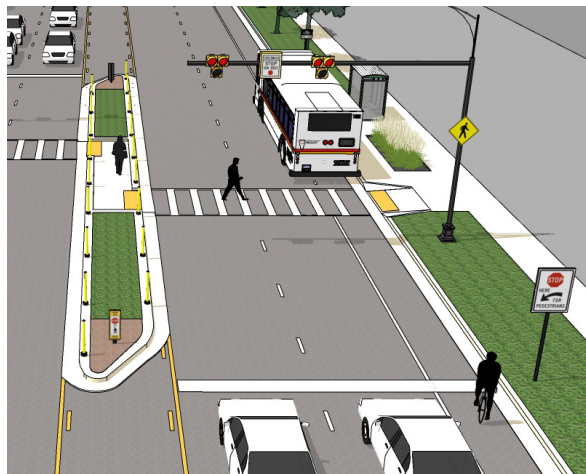
Marked Crosswalks

Marked crosswalks indicate optimal or preferred locations for pedestrians to cross a road and help designate right-of-way for motorists to yield to pedestrians. Marked crosswalks by themselves are only appropriate on low volume and low speed roadways. High visibility crosswalk marking in combination with signs help emphasize the crossing. Cost: \$3,000 to \$5,000 per crossing.



Rectangular Rapid Flash Beacons

A high-visibility strobe lights placed below a crosswalk are activated by pedestrians to alert motorists that a pedestrian is about to or in the process of crossing the roadway. These are used at mid-block locations and are most effective on roads with speeds 35 mph or less. It is often used in conjunction with crossing islands on roads with more than two lanes. Cost: \$30,000 to \$40,000 per intersection.



Pedestrian Hybrid Beacons

Device that brings motor vehicles to a complete stop to help pedestrians safely cross busy and higher speed roadways mid-block. Motorized traffic is permitted to proceed through the intersection after stopping if a pedestrian or bicycle has cleared the crosswalk when the beacon enters a flashing red phase. Cost: \$75,000 to \$150,000 each.

Example Crossing Island with Rectangular Rapid Flash Beacons





Shared Use Paths

Pathways that are physically separated from the roadway that are shared by people who walk and bike going both directions. These are wider than standard sidewalks (at least 10' wide) and typically constructed of asphalt or carefully jointed concrete for smooth bicycling. When located adjacent to a roadway the facility may be referred to as a **sidepath**. Cost: \$300,000 to \$450,000 per mile.

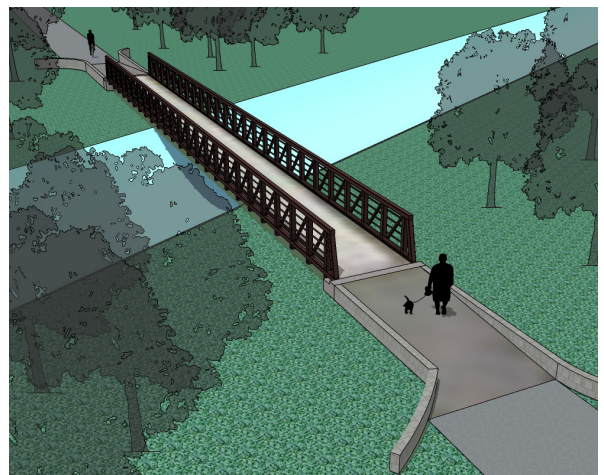
Shared Use Pathways are proposed for along the central greenway route, and segments of Yankee Road, SR 73, SR741 and Red Lion Five Points Road.



Unpaved Trails

Unpaved trails have a natural or a crushed fines surface and usually more recreational in nature than a paved pathway. They can be designed for specific activities like hiking and mountain biking.

An unpaved single track trail that parallels the Central Greenway is proposed as an option for pedestrians and bicyclists who would prefer an unpaved route across the city. Additional hiking and mountain biking trails are also proposed in city parks.

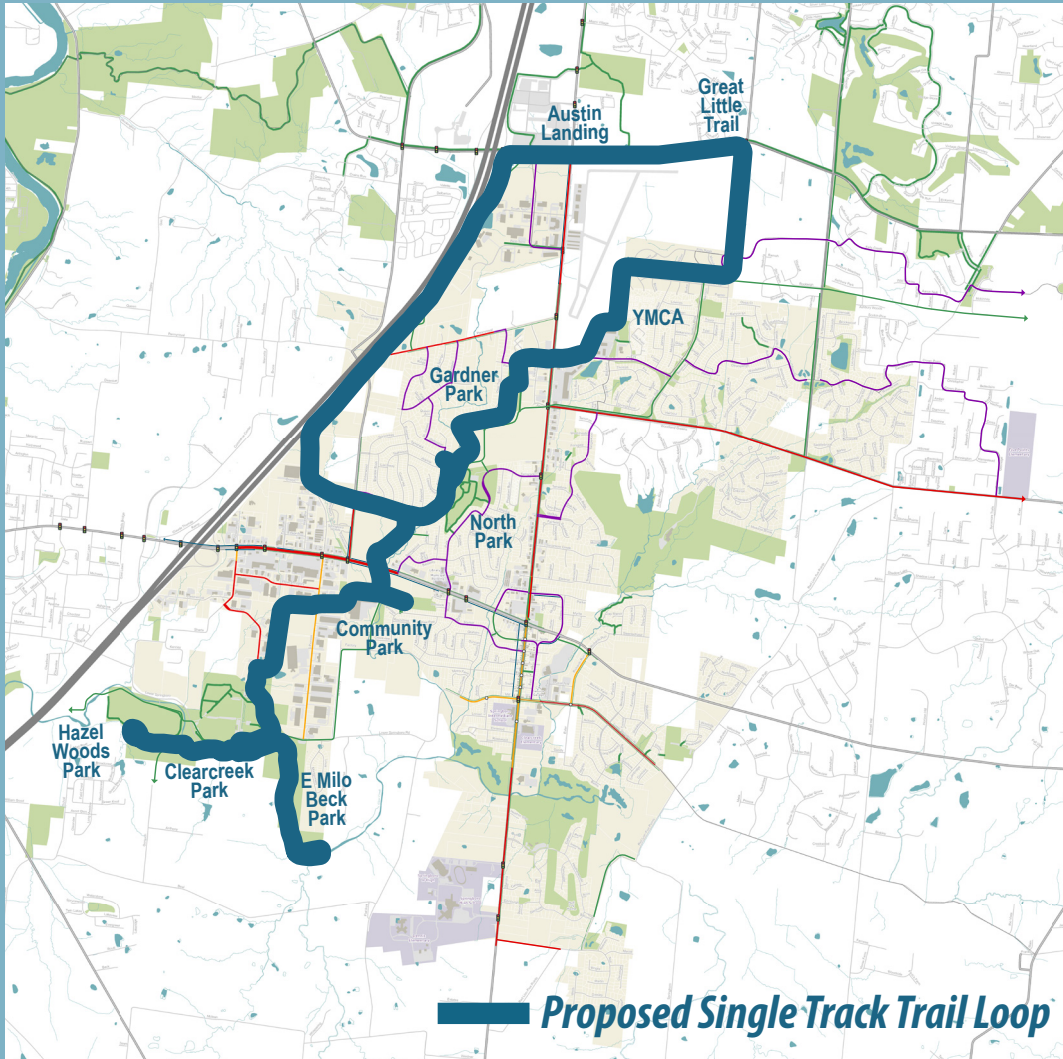


Bike/Pedestrian Bridge

A bridge designed solely for people who walk and bike. It usually provide critical links in the nonmotorized network by joining areas that are separated by barriers, such as waterways, major transportation corridors or steep elevation changes. Costs vary dramatically depending on the bridge length, but \$4,000 per lineal foot for a 14' wide bridge is a reasonable ball park estimate.

Bike/pedestrian bridges are proposed at four locations along the Central Greenway.

Single Track Trails



Single Track Trails are soft-surfaced, non-technical connectors for runners, walkers and mountain bikers. They are typically narrow, natural surfaced trails that work with the contours of the existing landscape, making them economical to implement. A Single Track Trail loop is proposed that parallels the Central Greenway and connects parks across the City.



Running

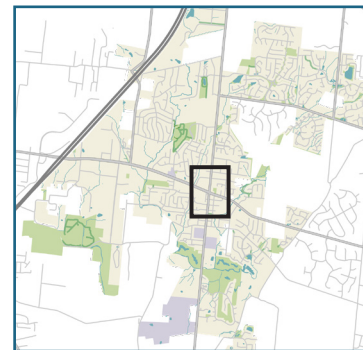


Walking/Hiking



Mountain Biking

Urban Village District Detail Area



The Urban Village District is a developing area of the City that people who walk and bike want to and need to access. One of the busiest intersection in the city bisects the center of this area, making it a challenging environment to navigate.

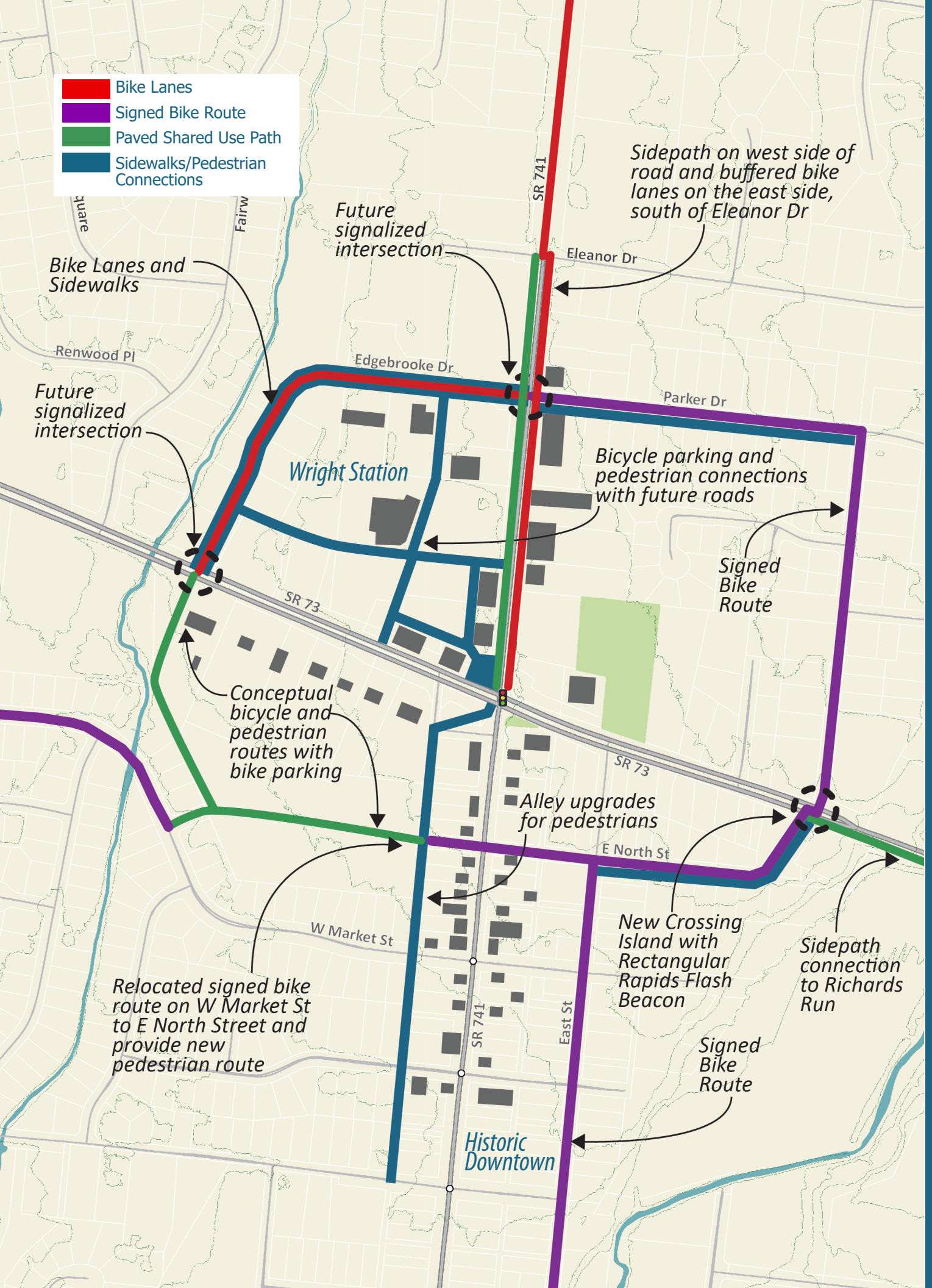
A loop network has been proposed to help people who walk and bike safely access destinations in the district. The proposed improvements include a combination of bike lanes, signed bike routes, shared use pathways, sidewalks and road crossings. There are also opportunities for pedestrian connections utilizing the existing alleyways behind the businesses along South Main Street.

As the Urban Village District develops, bicycle and pedestrian connections need to be incorporated, along with amenities, such as bike parking, benches and pedestrian scale lighting. The economic “health” of a city is reflected in the number of people who are visible walking and bicycling in commercial area or downtowns. This activity attracts the attention of passing motorists encouraging them to stop by indicating that it is a safe and desirable place to be.



Wright Station is one of the newest developments in the Urban Village District and includes the Performing Arts Center and Warped Wing Brewery







POLICY + PROGRAMS + METRICS

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Programs



Expand Bike Parking Program

Continue the existing bike rack program to make sure that convenient bike parking is available at all shopping, civic buildings, and public parks. Require bike parking that follows the Association of Pedestrian and Bicycle Professional Guidelines for all new developments.



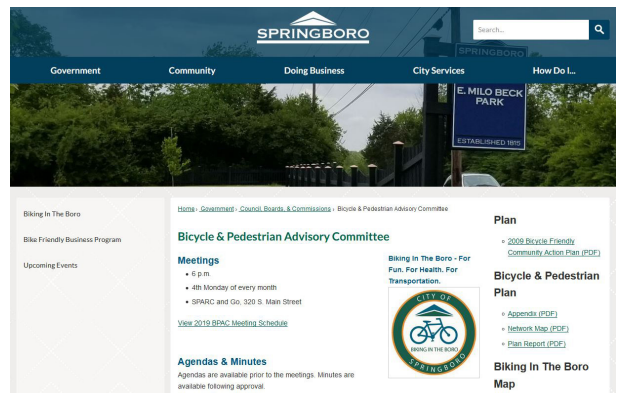
Motorist Education Paired with Enforcement

As new and unfamiliar facilities are constructed, there will be confusion on issues such as who yields to whom. When first constructed, police should use discretion with penalties and provide violators with education materials that provides information on why they were stopped and what the penalty would normally be. After an introductory period, focused enforcement should be employed as needed.



Expand and Maintain the Bicycle Route Wayfinding System

Add wayfinding signs for new bike routes in Settlers Walk neighborhood. Establish maintenance program to replace damaged, missing, obsolete, and worn out signs.



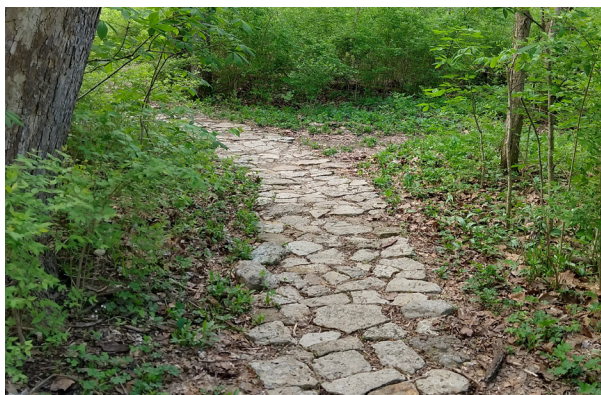
Expand Local Web Resources

Work with regional partners such as Bike Miami Valley to create web resources that address pedestrian and bicycle issues and provides a dashboard that track progress on local and regional goals. The website should provide an interactive experience where users can explore existing and proposed facilities, comment on things they would like to see in future plans, and report maintenance issues.



Expand Organized Rides and Walks

Expand the existing walk and ride program to incorporate family and kid oriented programs. Develop new educational bicycling and walking tours such as the successful Underground Railroad tour that explore the City's historic and natural places. Hire a summer intern to manage the expanded program and promote through the City's social media.



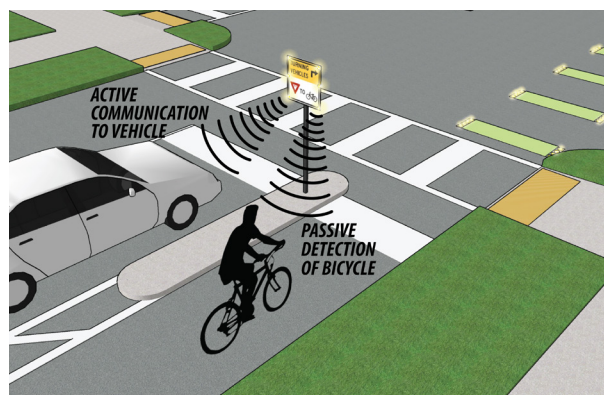
Establish Citizen Support Groups

For natural area preservation work, specialized bicycle facilities, and trails, establish citizen and corporate "adoption" and "friends of" programs to help improve and maintain the parks and facilities. The City should promote and recognize these groups and provide the volunteers and organizations with the tools and resources they require for their volunteer efforts.



New Facility Bicyclist Education and Outreach

Use the completion of a new project as an opportunity to introduce the public to the new facilities in a controlled environment of a special event and raise awareness on how to safely use something that they may not be familiar with. Also use temporary banners to help people understand how to interact with new on-street bicycle facilities.



Vehicle-to-Infrastructure (V2I) Innovation

V2I technology should be employed at conflict points between micromobility and motorized vehicles. V2I technology should be capable of passively detecting micromobility and pedestrians with the ability to transmit to smart vehicles and activate warning beacons as well as perform traffic counts. These devices should be integrated into the city's proposed high-speed fiber network and smart road plans.

Policies



Complete Streets + Vision Zero Ordinance

Adopt policy that places human life paramount and establishes that safe, comfortable, convenient, and accessible transportation for all users is a priority for the City. Then establish the necessary inter-departmental coordination, roles and responsibilities, and performance measures to implement the policy. Additionally, update the 2001 Thoroughfare Plan to incorporate bikes.



Manage Autonomous Vehicles (AV) and Micromobility Device Space and Use

Develop policies and plans for AV vehicle pick-up/drop-off zones in the downtown and guidelines for private commercial areas. Develop a policy to restrict nuisance parking and unnecessary travel of AVs during down times. Define what class e-bikes, and what micromobility devices may be used on pathways and bike lanes.



Develop an Americans with Disability Act Transition Plan

Assess the existing pedestrian network for ADA compliance. Develop a system to respond to complaints of inaccessible routes. Implement proactive measures to eliminate barriers to key public destinations within the city.



Continue Regional Trail Coordination

Continue to work with adjacent communities to establish a 17 mile loop that incorporates the proposed Springboro Central Greenway, Clear Creek Trail, Great Miami River Trail, and the Great-Little Trail. Also continue to improve the existing bike routes to the Little Miami Scenic Trail.

Metrics



Establish Permanent Bicycle and Pedestrian Counter Program

As major facilities such as the greenway and separated bike lanes are implemented, place permanent counters at strategic locations. For greenways use counters that can distinguish between different types of users.



Bicycle Friendly Community Award

After making progress on the proposals in this document, apply for the Bicycle Friendly Community Award. The Bicycle Friendly Community program provides guidance on how to improve conditions for bicycling and make your community a better place for bicycling. The City of Springboro was presented with a Bronze Medal in 2016.

➤ *This is not an exhaustive list, but rather focuses on the policies, programs and metrics that should be addressed over the next five to ten years.*

For the full list of policy, program and metric recommendations refer to the Appendix Section of the 2013 Plan for details



IMPLEMENTATION

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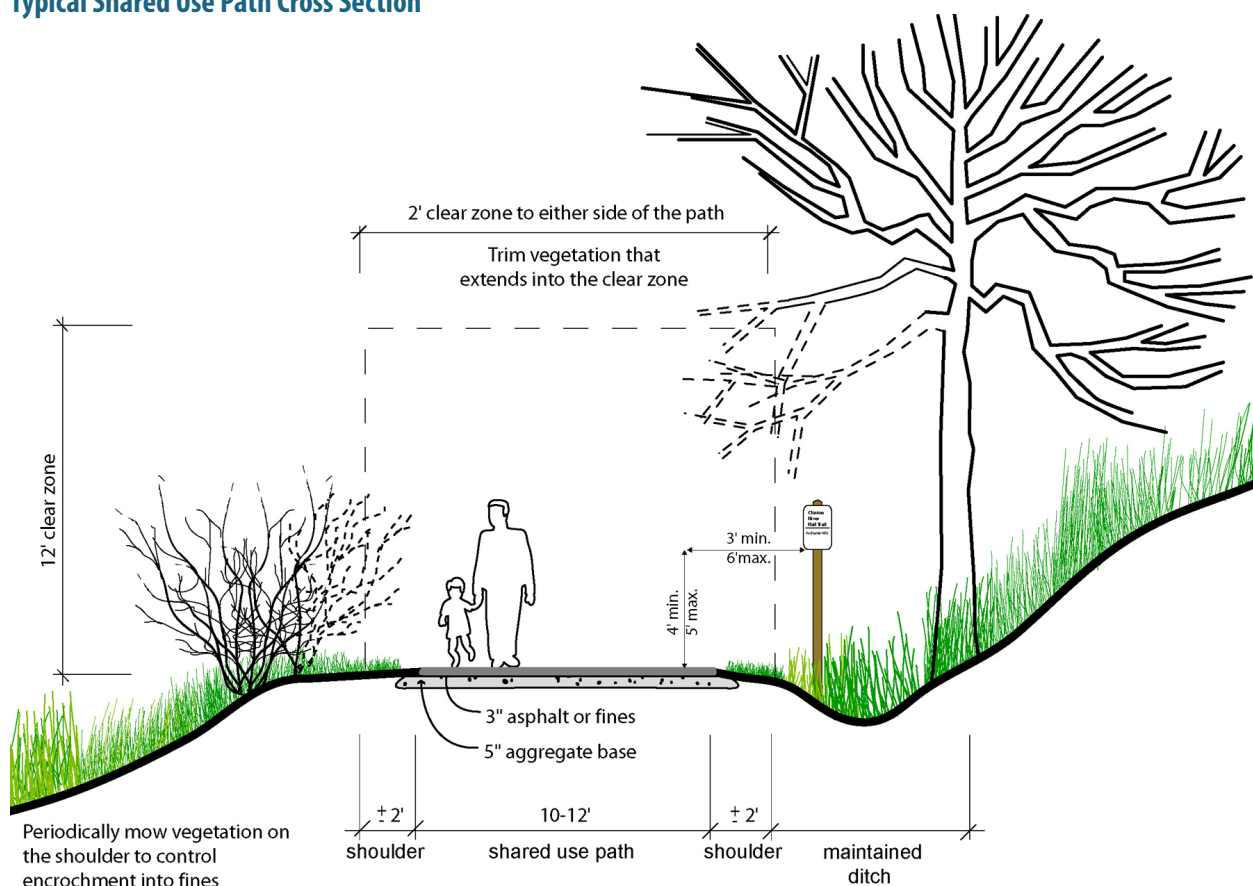
Implementation of the Central Greenway

The Central Greenway has been segmented into 12 parts. For each segment, a preferred route is highlighted, and some alternative routes may be provided.

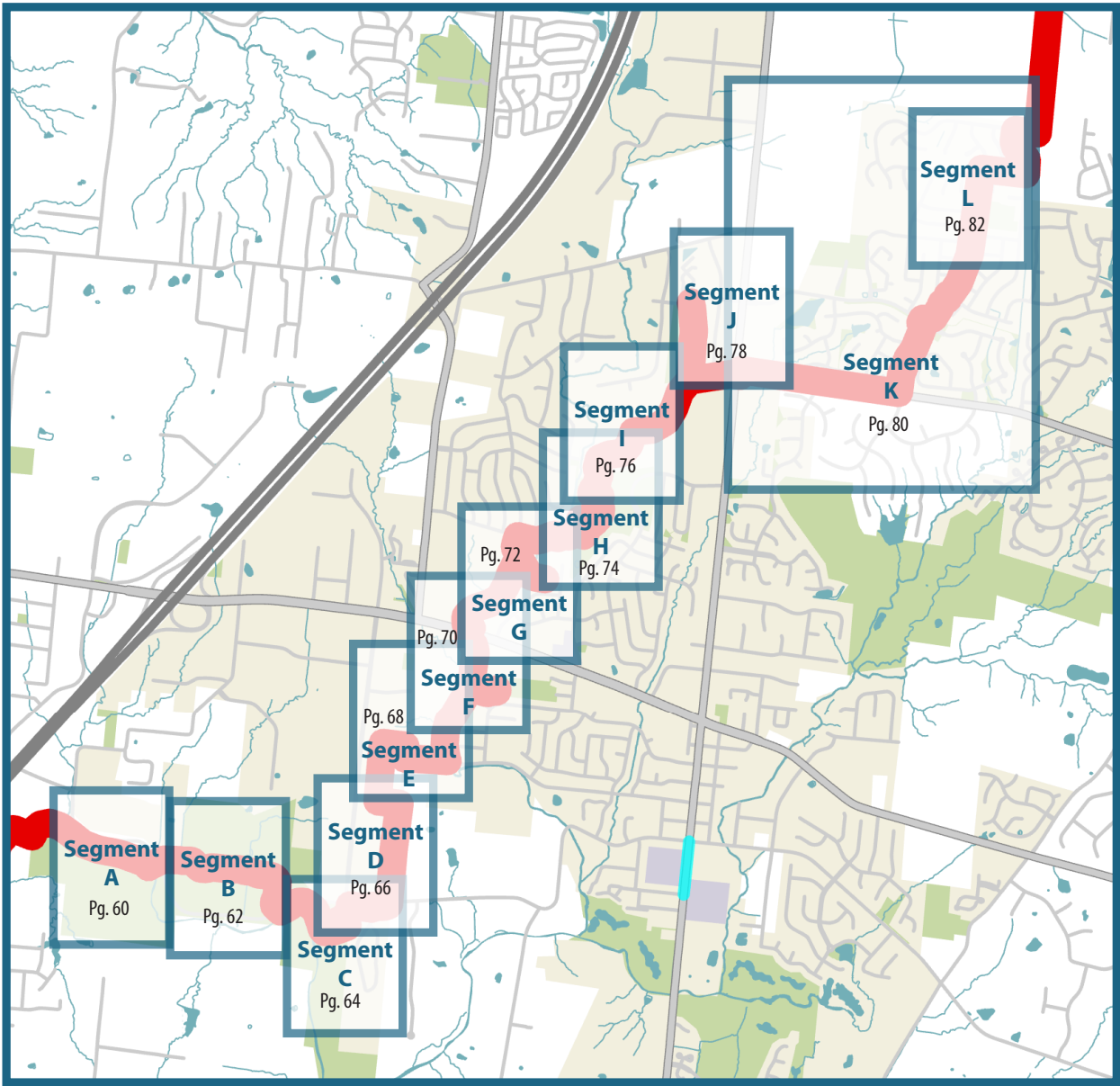
Some of the big ticket items include bridges and boardwalks. Bridges and boardwalks for the Greenway should be a minimum of 14' wide to accommodate bicyclists riding a safe distance from the side rails. They also need to be structurally capable of heavy loads such as a running event, occasional maintenance vehicles, and snow loads. The deck surface has a major impact on long-term maintenance. Wood decking while initially more economical, are difficult to clear snow, leaves, and debris from. They require more frequent maintenance, and often become very slippery when wet. Concrete surfaces while more expensive up-front are much easier to maintain and are less slippery when wet.

Around 85% of the Greenway will be shared use paths. Current guidelines call for a minimum width of 10' with a 2' clear zone on either side of the trail. 11' and 13' wide trails make it easier for two bicyclists to ride side-by-side and pass other users on the trail. The path should be gently graded (5% maximum slope), avoid tight turning radii, and have good visibility at all intersecting driveways and roadways for the safety of the users. The trail surface should drain to either side to avoid puddling water and ice buildup on the trail.

Typical Shared Use Path Cross Section



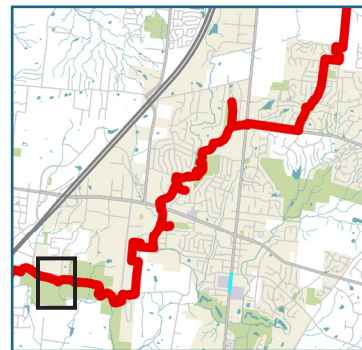
Segment Map of Central Greenway



Segment A: Hazel Woods Park to Clearcreek Park

Two options have been considered for connecting Hazel Woods Park to Clearcreek Park. The preferred route provides a direct connection between both parks by building a bridge over Clearcreek and then providing a rectangular rapid flashing beacon across West Lower Springboro Road.

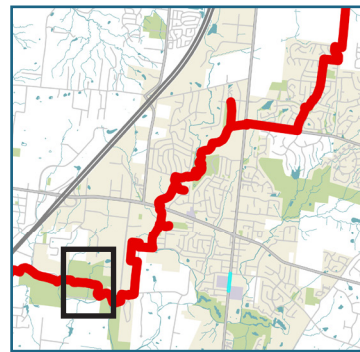
The alternative route would require easements from private property owners and at least two areas with bridges/boardwalks.





Segment B: Clearcreek Park

Two options have been considered for the Greenway connection through Clearcreek Park. The preferred route recommends building a new 11' wide pathway through the middle of the park with a rectangular rapid flashing beacon at West Lower Springboro Road to E. Milo Beck Park and some minor road crossing at access roads within the park.



The alternative route would include widening the existing asphalt path that follows West Lower Springboro Road around the parks perimeter.

The advantage of the proposed routes is to complement the existing walking path system giving the park users more walking and running options.

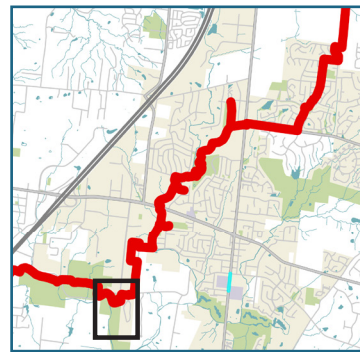




Segment C: E. Milo Beck Park

Since the 2013 Plan, the City has explored numerous connections to Clearcreek Park from Advanced Drive, South Pioneer Drive, and along West Lower Springboro Road. After numerous route feasibility studies, site investigations, and discussions with private land owners, these routes were ruled out due to challenging topography, costs, and the inability to obtain the necessary easements. All of these efforts led to the preferred route through E. Milo Beck Park. This route was initially not considered due to development restrictions tied to the grant used in part to purchase the park. Discussions with the State of Ohio concluded that the proposed trail alignment would be compliant with the deed restrictions.

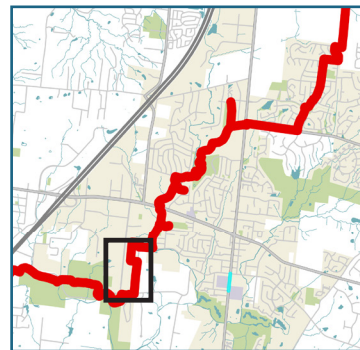
The preferred route passes through a low area where boardwalks may be required and then climbs up a hill at a 5% slope to the parking lot area, where the parking lot may need to be realigned to provide trail access through it.





Segment D: West Factory Road /South Pioneer Boulevard - South

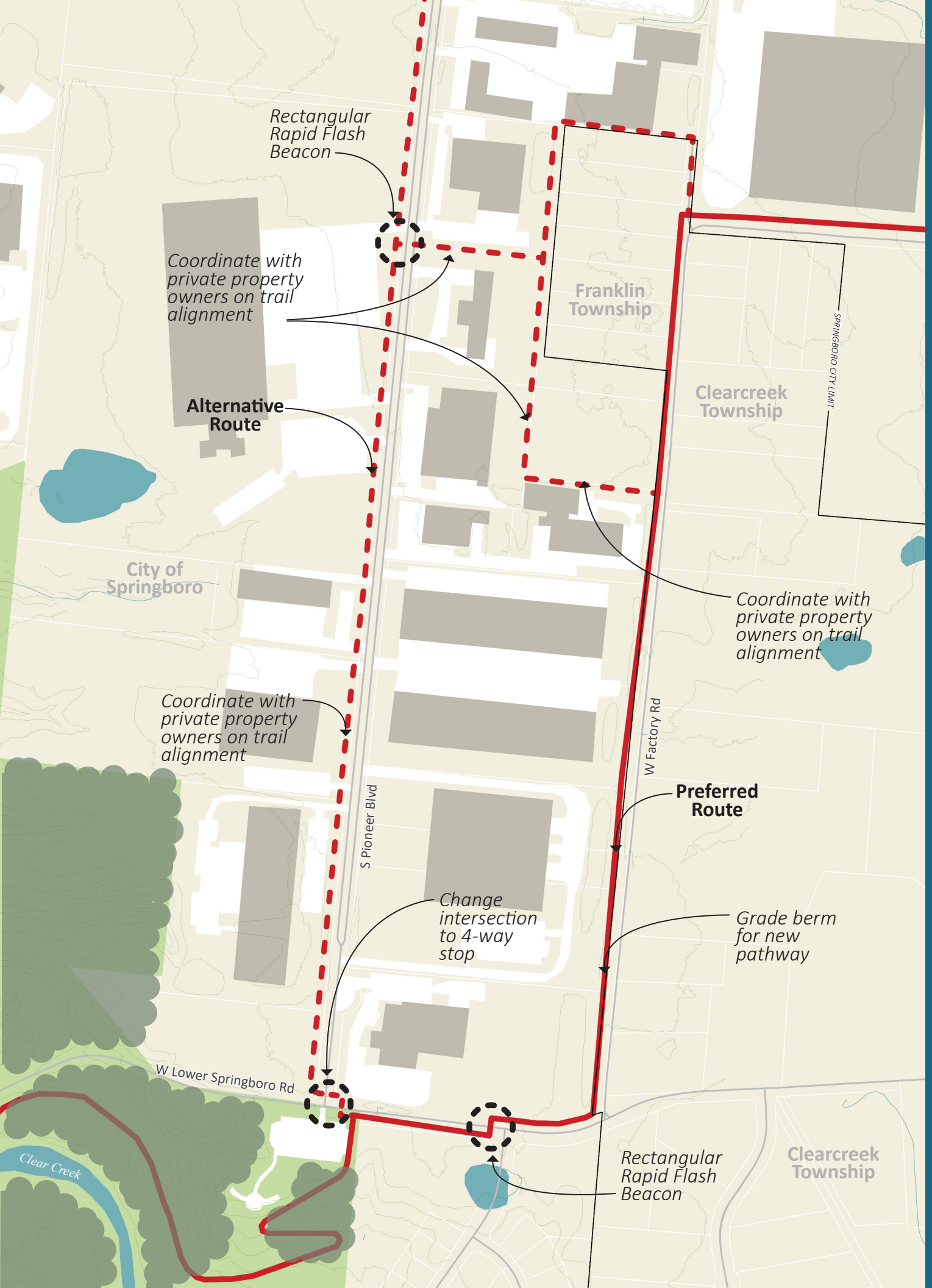
Numerous connections between E. Milo Beck Park and Community Park have been explored along West Factory Road and South Pioneer Boulevard. South Pioneer Boulevard is a challenging connection due to narrow rights-of-ways, private properties and truck traffic to industrial businesses. West Factory Road, paralleling South Pioneer Boulevard, carries mostly residential traffic and there are no commercial driveway crossings to contend with.



The preferred route follows west side of West Factory Road. With some grading, the trail would traverse the top of the existing berm and run along the backside of the industrial buildings.

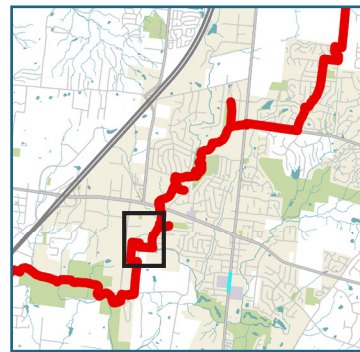
There is the option to turn the intersection of South Pioneer Boulevard and West Lower Springboro Road into a four-way stop to provide a safe road crossing, or place a rectangular rapid flash beacon on West Lower Springboro Road to the west of Montgomery Lane.



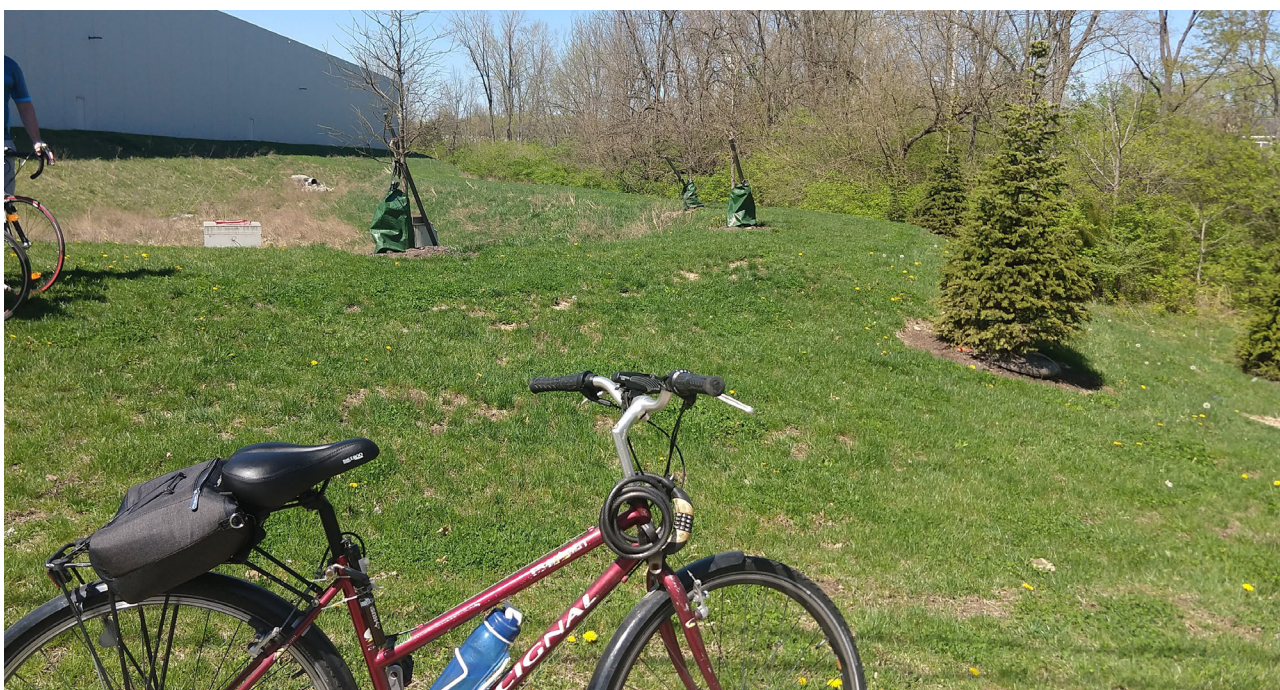


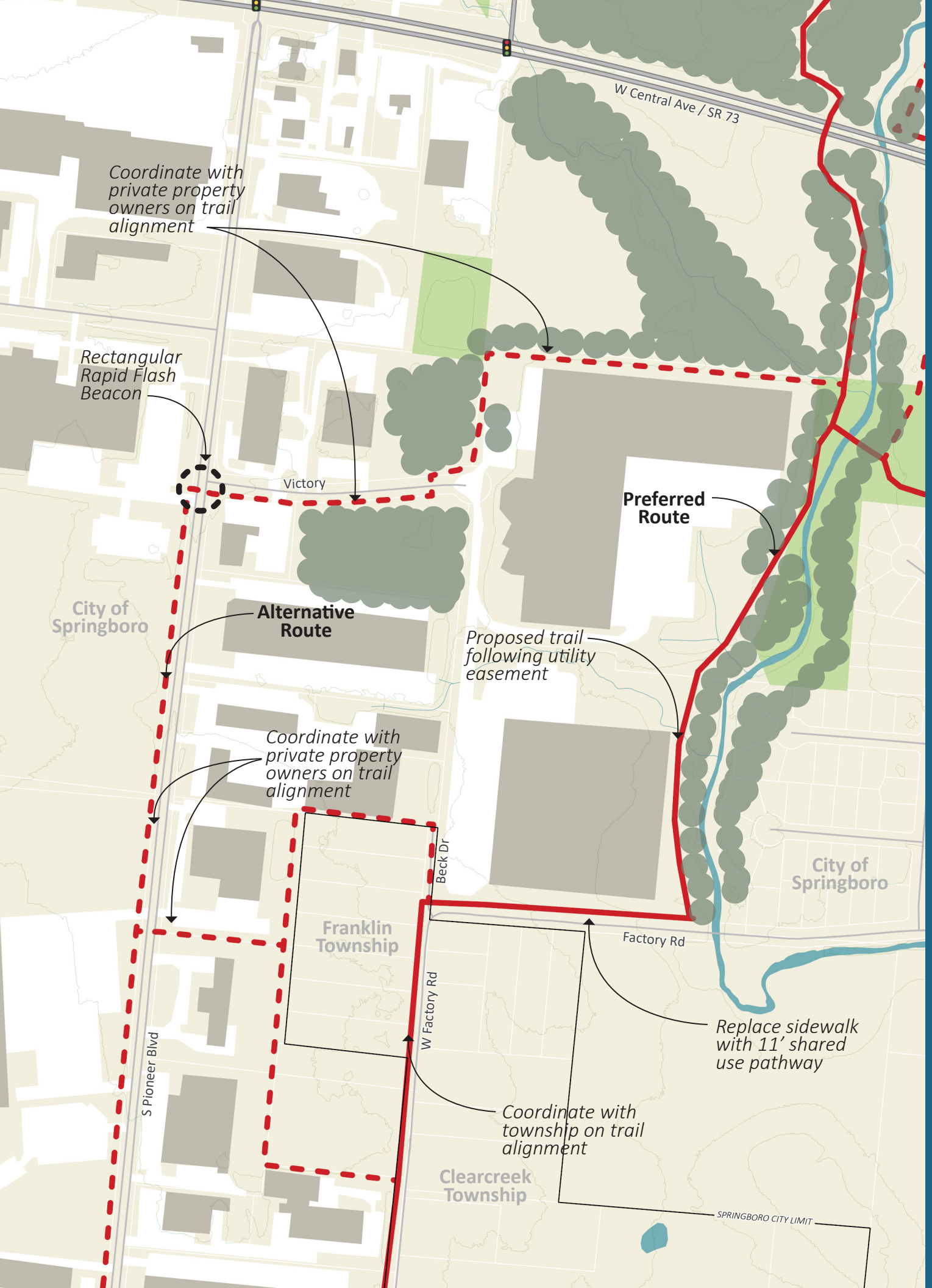
Segment E: West Factory Road / South Pioneer Boulevard - North

The preferred Greenway route follows West Factory Road north where it enters Franklin and Clearcreek Twp for seven parcels. This section of the trail requires coordination with the townships and its homeowners who live along this section of West Factory Road. The route then follows Factory Road to the east, where the exiting sidewalk would need to be widened, and then heads north following an existing utility easement along the west side of Twin Creek. Some grading would be required along the utility easement berm.



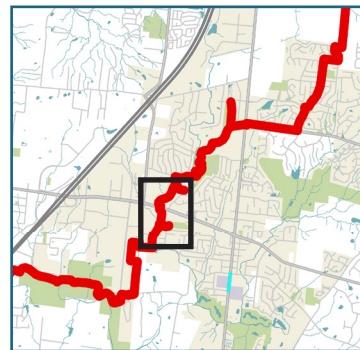
Alternative routes look at staying within the City Boundary, following South Pioneer Boulevard and cutting behind the backside of the businesses on South Pioneer Boulevard. Alternative routes would require easements with numerous private property owners and crossing many commercial driveways with heavy truck traffic.





Segment F: Community Park & SR 73

The connection to Community Park requires a short bridge over Twin Creek. From there, two options have been considered as the Greenway continues north of Community Park. The preferred route follows the utility easement along the west side of Twin Creek to the north through an undeveloped parcel where a Hybrid Pedestrian Beacon with crossing island would be required to cross West Central Ave/SR 73.



The alternative route follows the east side of Twin Creek through an undeveloped private parcel where boardwalks may be required. The benefit of this route is that the existing signalized intersection on West Central Ave/SR 73 could be used as a trail crossing.

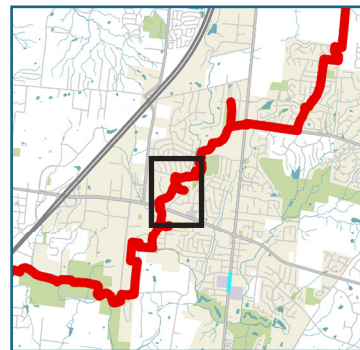
The main determining factor of which route to choosing is based on which route is chosen in Segment G.





Segment G: SR 73 to North Park

Two options have been considered as the Greenway continues north of West Central Avenue/ SR 73. The preferred route continues along the west side of Twin Creek through an undeveloped parcel. It is recommended the city work with the current development proposal to provide a trail connection along the creek.



The preferred route also includes a bridge connection across Twin Creek to connect neighborhoods between Evergreen Drive with Jacamar Court. Use of the vacant parcel at the end of Jacamar Court is critical to completing this connection. This connection is a priority regardless of which route alternative is used.

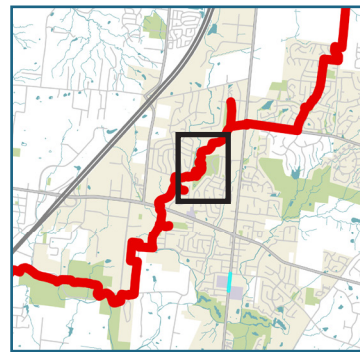
The alternative route follows the east side of Twin Creek, along the backside of residential properties. Both routes require coordination with the same property owner.





Segment H: North Park

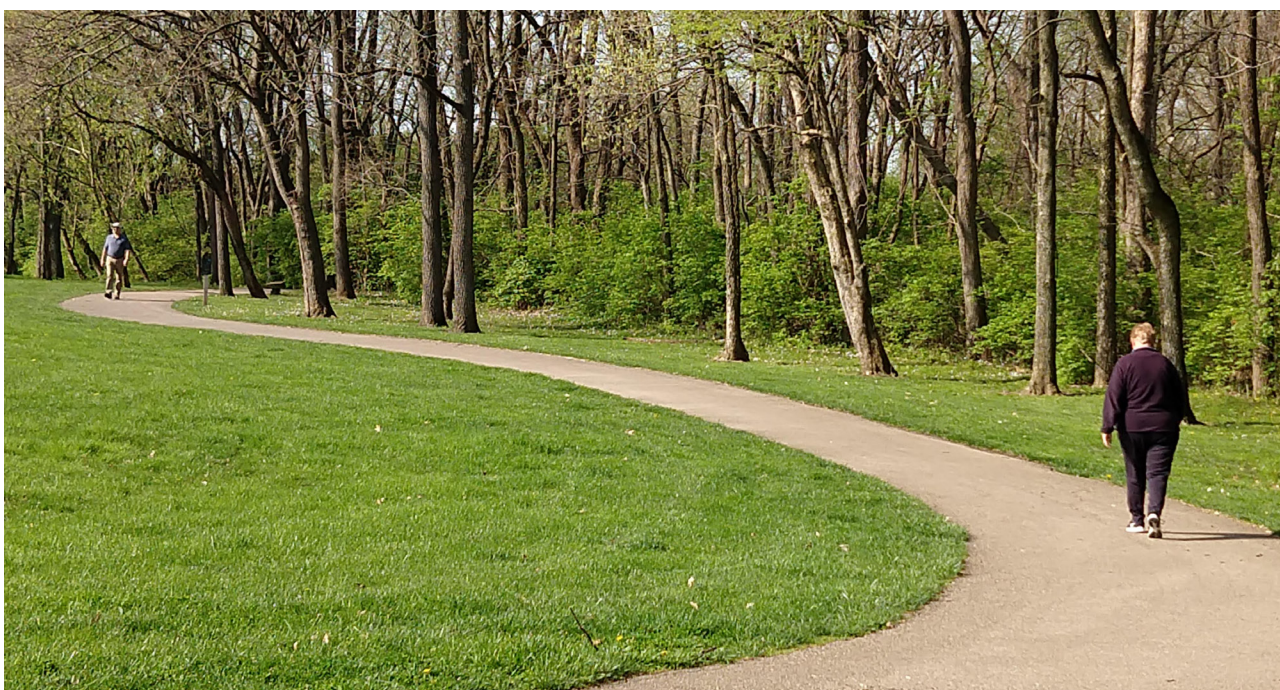
Two options have been considered as the Greenway connects to North Park. The preferred route continues along the west side of Twin Creek and connects to Evergreen Drive and Whispering Pines where it becomes a signed bike route for about 900 feet. At that point an easement will be required from a private property owner to make the connection from the end of Whispering Pines Drive/Foliage Lane to North Park. Once in North Park a new bridge over Twin Creek will be required with a new trail connection that link to the parkways existing pathway network. The existing park pathway along the preferred route should be upgraded to at least ten feet wide.



The alternative route follows the east side of Twin Creek through undeveloped property until it reaches North Park. Additional bridge over Twin creek would not be required for this route.

Both route alignments require easements and will be impacted by topography and vegetation.

A “mini” bike hub is proposed to be incorporated into the existing restroom facility. This would include a large system map, bicycle repair station, bike parking, and a bike parts vending machine.

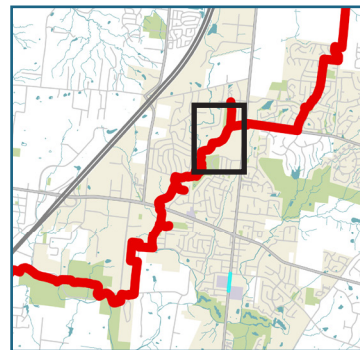




Segment I: North Park to Gardner Park

The preferred route connects North Park to Gardner Park through an undeveloped parcel. It is recommended the City work with the developer to provide a trail connection.

The trail should be integrated into the new development project. Housing, office and retail establishments all benefit by embracing and orienting towards this community asset. Likewise, the trail itself benefits when well integrated into development projects.



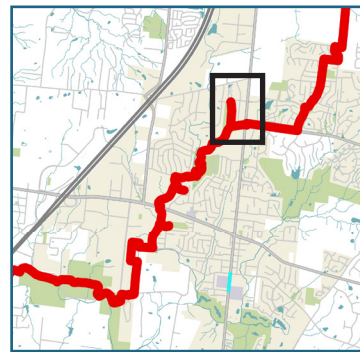
Example of trails integrated into new developments





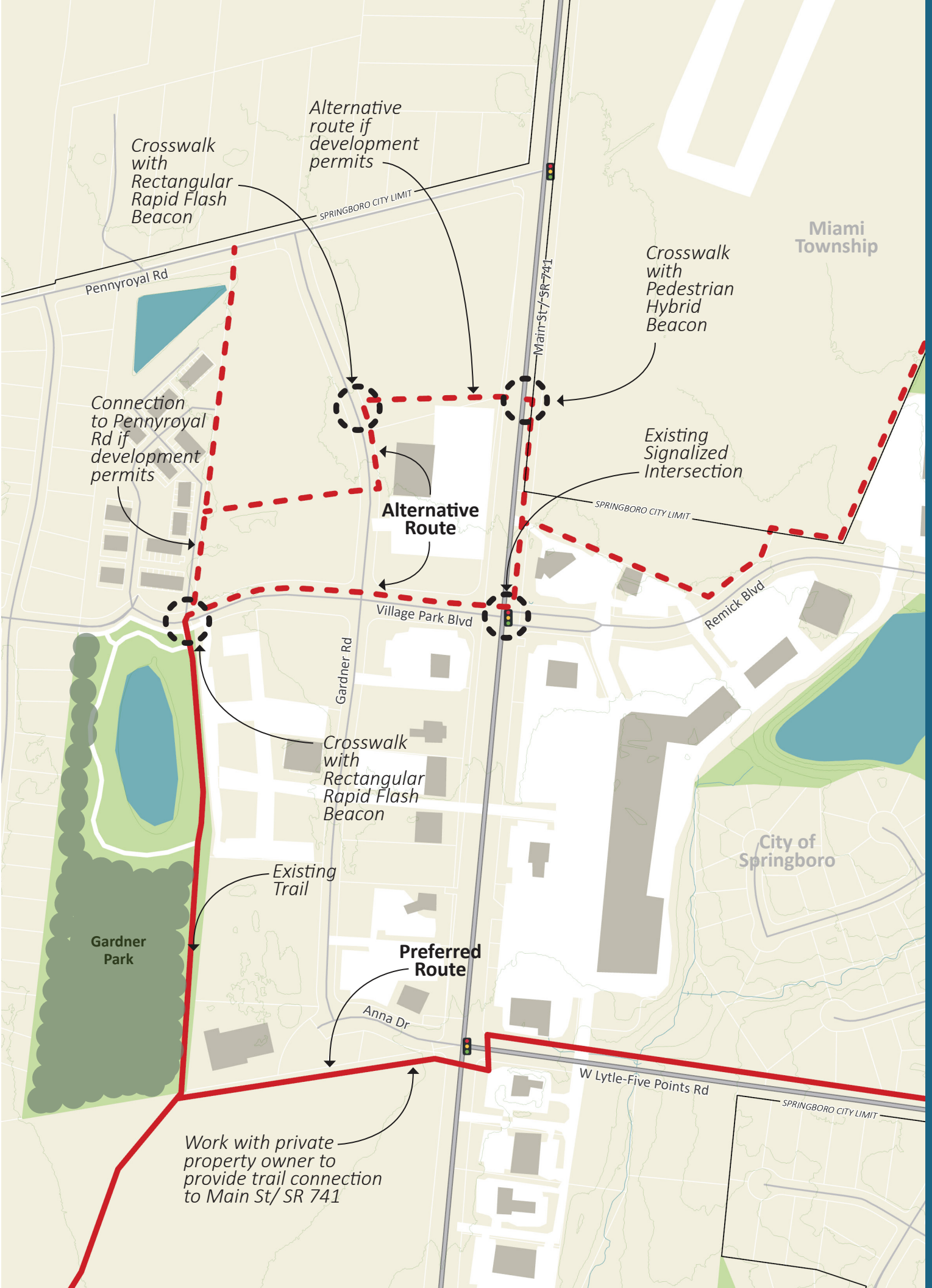
Segment J: Gardner Park / SR 73

Numerous routes have been explored for connecting to Gardner Park and crossing SR 73. The preferred route provides a link to the existing pathway at the south end of Gardner Park and then follows the northern edge of the undeveloped parcel to the intersection of SR 73 and Anna Drive/West Lytle-Five Points Road. The existing signalized intersection would be used to cross SR 73 and then the trail would continue along the north side of West Lytle-Five Point Road to the east.



The alternative routes look at continuing the trail north through Gardner Park and then crossing SR 73 at Village Park Boulevard, or even further north, should opportunities become available with new developments in that area. Once on the east side of SR 73, the key to making this connection successful is coordination with the airport to provide a pathway along the south side of the property.

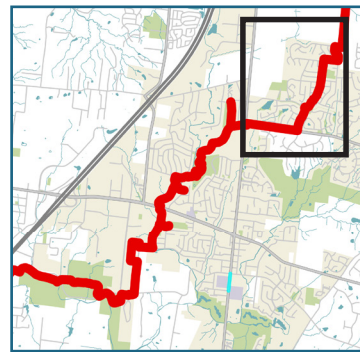




Segment K: Lytle-Five Points / Settlers Walk Boulevard

Two options have been considered for connections to the neighborhood around Settlers Walk. The preferred route continues east as a sidepath along the north side of West Lytle-Five Points Road. Some existing sidewalk will need to be widened to accommodate the bike trail on this segment. The route then heads north on Settlers Walk Boulevard where a bike lane could be stripped and existing sidewalks would be upgraded. In the near term, the existing bike lanes and sidewalk on West Lytle-Five Points Road could provide a temporary connection to a bike route on Settlers Walk Boulevard.

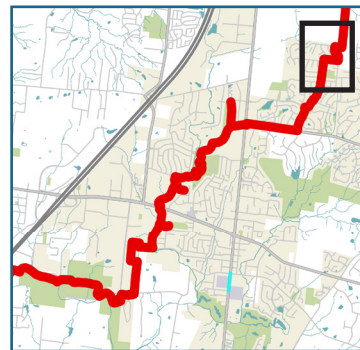
The alternative route would require an easement from the airport and along the transmission corridor. If opportunities align this connection would provide an off-trail separate from the roadway with very few road crossings.





Segment L: Settlers Walk Boulevard/Utility Corridor

There are multiple options for continuing the Greenway north into Miami Township and Washington Township. The preferred route continues to bike lanes and upgraded sidewalks along Settlers Walk Boulevard and then requires an easement along the transmission corridor (about 800') for a new trail connection to Stanton Road. A signed bike route would then route trail users along Stanton Drive and Kitty Hawk Drive. At the end of Kitty Hawk Drive the route would continue north to the Great Little Trail with a new pathway through the City of Dayton Property.



Alternative routes include continuing the bike lanes and upgraded sidewalks up Settlers Walk Boulevard, then providing a signed bike route on Kitty Hawk Drive, or continuing the trail along the transmission corridor to the west and then north, along the backside of residences on Stanton Road.

There may also be potential to continue the trail along the transmission corridor to the east, but it would require coordination and easements with a variety of neighborhood associations and property owners.







APPENDIX

The project website at <http://walkbike.info/springboro> includes a detailed digital appendix with a wealth of information on how the plan was developed and supporting materials. The appendix includes the following:

STEERING COMMITTEE MEETING MATERIALS

- Agendas
- Notes
- Presentations

MAY 2019 PUBLIC ENGAGEMENT

- Meeting Materials
- Results

SEPTEMBER 2019 PUBLIC ENGAGEMENT

- Meeting Materials
- Results

LARGE FORMAT PLANS

- Central Greenway
- Recreational Trails
- Network Plan

COST ESTIMATES AND IMPLEMENTATION

- Planning level cost estimates for the preferred route segment

2013 BICYCLE & PEDESTRIAN PLAN

- Report
- Appendix D

GEOGRAPHIC INFORMATION SYSTEM

- A large GIS database, which includes all of the existing and proposed multimodal facilities, was created as part of this project and transferred to the City for future use