



Elephant Swamp Trail

Planning Study:
Potential Enhancements
for Safety & Accessibility

May 2021



NJDOT Local
Technical Assistance



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Acknowledgments

The project team would like to recognize and express appreciation to the numerous individuals who contributed information, attended the online meeting, sent in a comment, and/or participated in the online survey.

Special thanks to the **Study Advisory Committee** and to the **Elk Township Environmental Commission** for their time in developing this study and their ongoing commitment to making the Elephant Swamp Trail a safe, accessible, and enjoyable place to walk, run, bicycle, and experience nature.

Project Team

The Office of Bicycle and Pedestrian Programs, New Jersey Department of Transportation and Elk Township, New Jersey



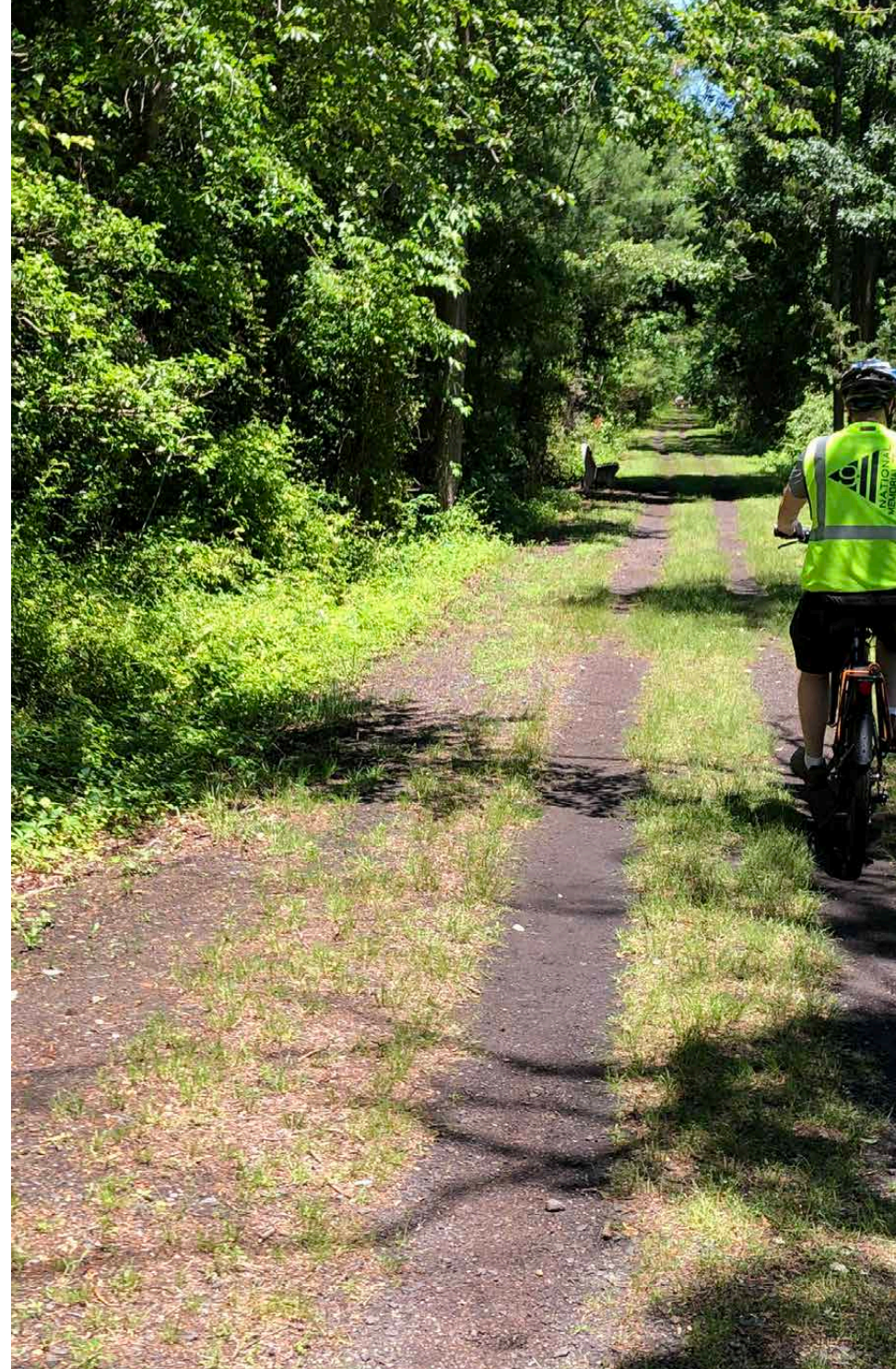
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With



Disclaimer:

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Introduction

In October 2019, the Township of Elk applied to the NJDOT Office of Bicycle & Pedestrian Programs for planning assistance to enhance the safety and accessibility of the Elephant Swamp Trail.

The Township expressed interest in safety measures and improvements to trail accessibility, requesting that three major design issues be addressed in this planning study:

- 1 Trail access and arrival
- 2 Trail surface/accessibility
- 3 Roadway crossing

This study provides a planning level analysis of existing conditions and presents potential design concepts, along with an order-of-magnitude cost estimate, to improve safety and accessibility along Elephant Swamp Trail.



The gravel tread surface of the trail varies in width (5' to 12') and configuration (double track, single track). Significant portions of the trail do not comply with AASHTO standards for a shared use path by pedestrians and bicyclists. Some areas have a tread surface of compacted earth and are prone to accumulation of puddles that can cause issues for the general usability, accessibility, and safety of the trail.



Elephant Swamp Trail has excellent connectivity to Elk Township Recreation Park, yet, there is no visual indication to park visitors and potential trail users that the trail is accessible within the park.



From the motorist's perspective on Elk Road/CR-538, there is no visual indication of an upcoming trail crossing.

Planning Process

This planning study was developed in four main steps:

1. Assessment of existing conditions using GIS data and field observation
2. Development of draft concepts for trail improvements
3. Community participation, which included an online public meeting and online survey
4. Refinement of trail improvement concepts and development of the order-of-magnitude cost estimate

With a focus on safety and accessibility issues, the objective of this study is to provide a conceptual framework and order-of-magnitude cost estimate for capital improvements that will sustain the Elephant Swamp Trail well into the future. As capital improvements, which are beyond typical trail maintenance in size and scope, it is anticipated that Elk Township will use the content of this study as the basis to apply for trail funding through federal or state funding opportunities.

This study can also be used for communication and coordination with regulatory agencies, to describe the present issues, potential solutions, and advance the trail improvements within the appropriate regulations.

The opportunity to conduct public input, listen, and respond to the ideas and concerns of Elk Township residents will continue through the next steps that are necessary to bring the potential trail improvements to fruition.

Typical Trail Planning Process:

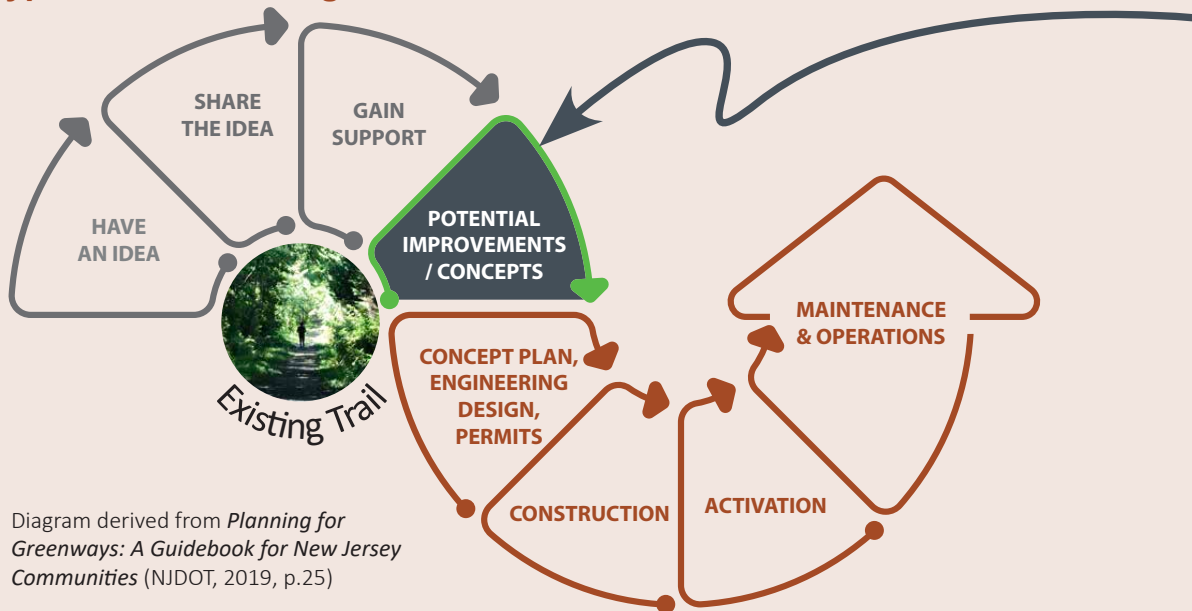



Diagram derived from *Planning for Greenways: A Guidebook for New Jersey Communities* (NJDOT, 2019, p.25)

Outcomes of this Study:

- Existing Conditions Analysis
- Community Outreach & Online Survey
- Trail Improvement Concepts & Order-of-Magnitude Cost Estimate

Next Steps:

- Coordination with regulatory agencies (NJDEP, Gloucester County) and Delaware Valley Regional Planning Commission
- Application for federal or state funding
- Site survey, engineering design development, and permitting
- Construction and activation of trail improvements


ELK TOWNSHIP
ELEPHANT SWAMP
RECREATIONAL AREA & WALKING TRAIL
Sign donated by Elk Township Girl Scouts
Jenni and Sydney for Silver Search Project



NO BICYCLES
ALLOWED





Qualities of the Existing Trail

Elephant Swamp Trail in Elk Township

Location

The Elephant Swamp Trail is a 5.2-mile rail-to-trail conversion that connects Gloucester and Salem Counties and the municipalities of Elk Township, Upper Pittsgrove Township, and Elmer Borough. Map 1 illustrates the location of the Elephant Swamp Trail in Elk Township and its relationship to surrounding communities and the growing Circuit Trails Network.

The study area for this project covers the trail within Elk Township only, a distance of approximately 2.5 miles.

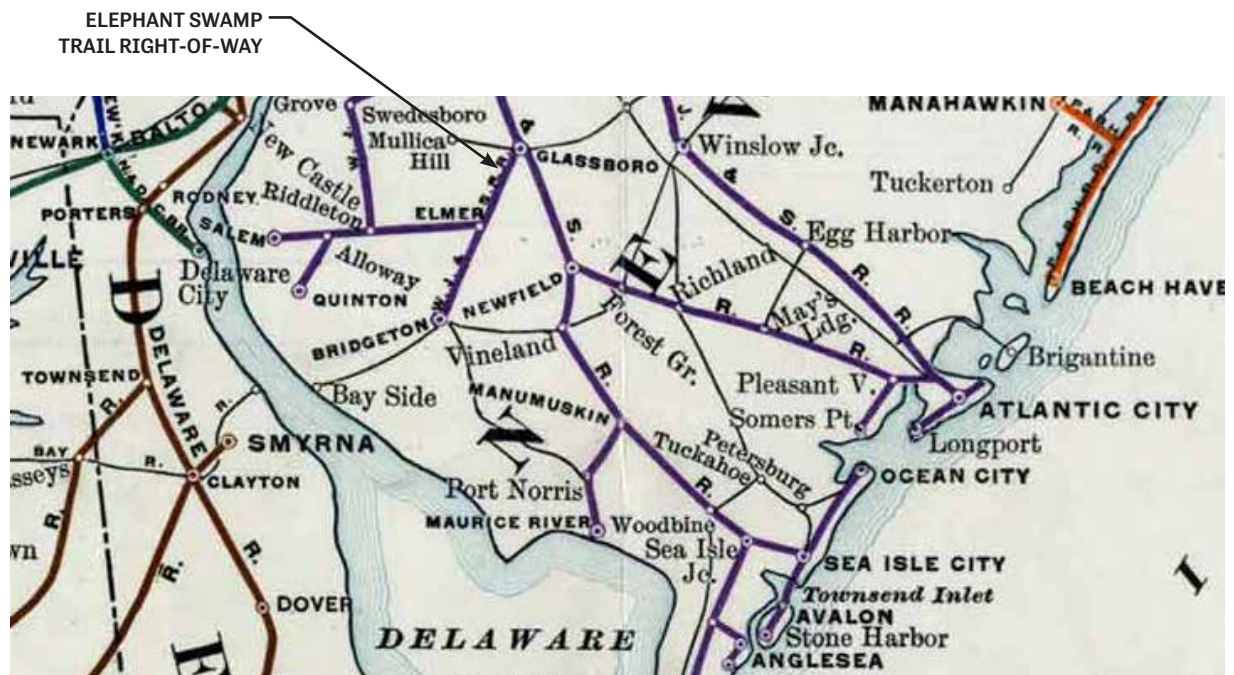
Trail Property and Zoning

In Elk Township, the Elephant Swamp Trail occupies two township-owned parcels:

- Block 54, Lot 36 (±11 acres, north of Elk Road)
- Block 41, Lot 29 (±8 acres, south of Elk Road)

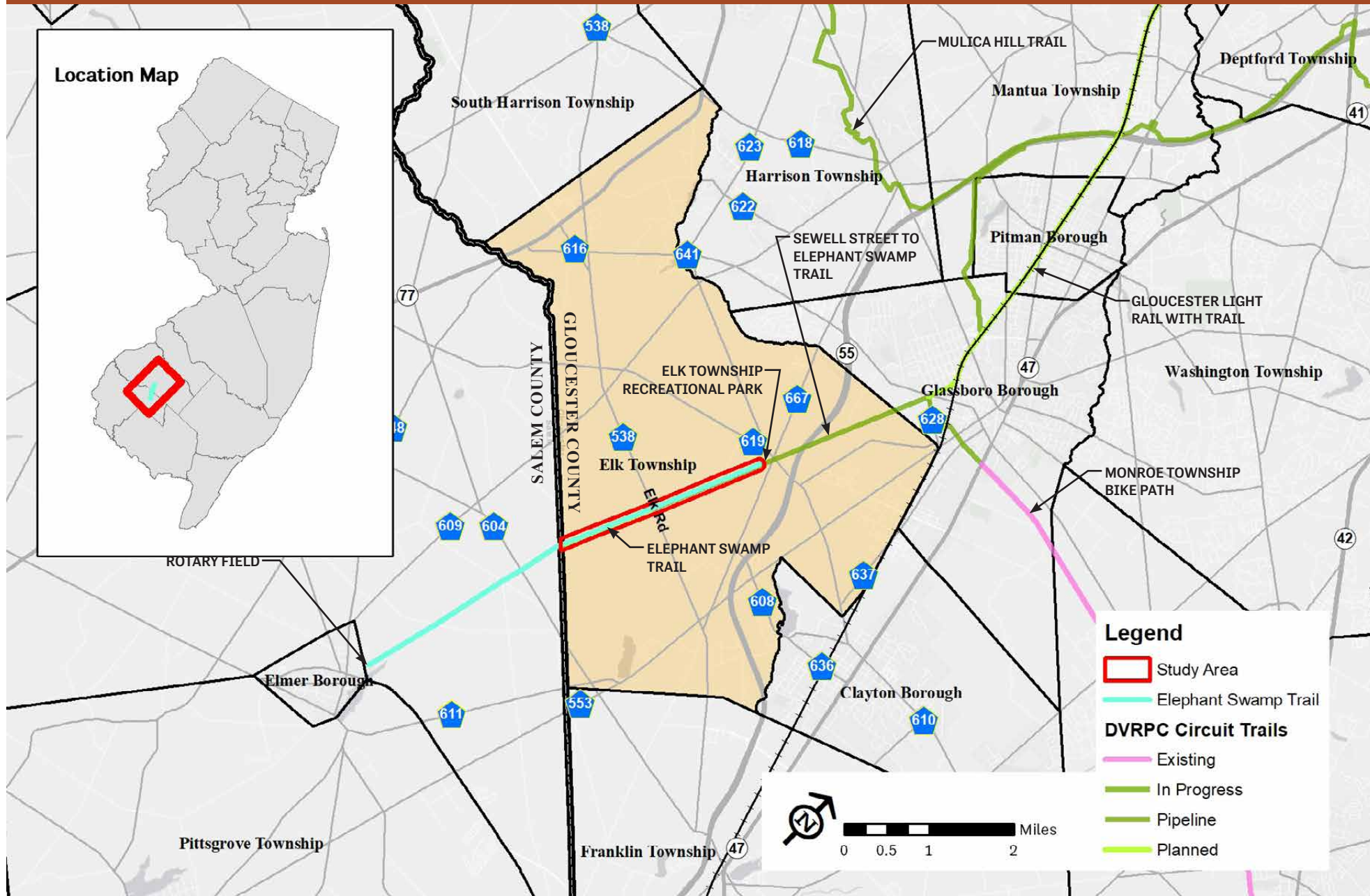
Both parcels are typically 50-55' wide, with wider portions directly adjacent to Elk Road.

The Elephant Swamp Trail is located entirely within the Elk Township Rural Environmental Residential (RE) Zone, as per the August 2010 Elk Township [Zoning Map](#). As per Township zoning ordinance §96-71, Zone RE allows for public parks, playgrounds, woodlands, conservation areas, and similar public uses. The ordinance limits impervious coverage to 20% of the lot.



Map: *Pennsylvania Railroad Company's Lines East of Pittsburgh and Erie, 1st July, 1899*. Source: Rutgers Historical Maps of New Jersey

Map 1: Trail Context



History

The Elephant Swamp Trail follows the right-of-way of a branch the former West Jersey Railroad, also known as the West Jersey & Seashore Railroad, that extended from Glassboro to Bridgeton. According to the map *Pennsylvania Railroad Company's Lines East of Pittsburgh and Erie, 1st July, 1899*, this branch was part of the Pennsylvania Railroad Company's network in Camden, Gloucester, Salem, Cumberland, Cape May, and Atlantic Counties. The tracks were removed in the 1980's, according to the 2017 *Elephant Swamp Nature Trail* guide by the Elk Township Environmental Commission.

Elephant Swamp
Nature Trail
Elk Township, NJ



Cover of 2017 Elephant Swamp Trail guide by the Elk Township Environmental Commission

The 2017 edition of this guide was produced by the Elk Township Environmental Commission.

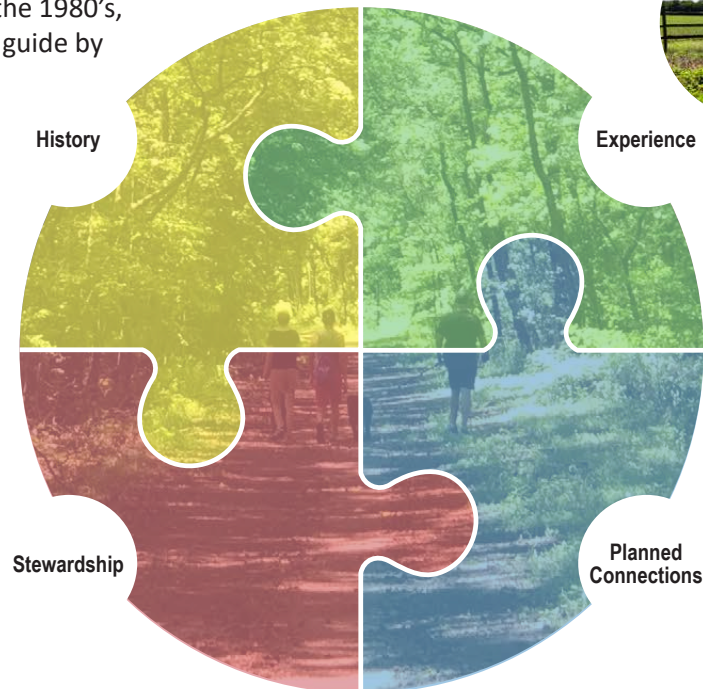
Stewardship

In Elk Township, the Elephant Swamp Trail is owned by Elk Township. The Elk Township Environmental Commission and Public Works manage and maintain the trail. Over the years, the Environmental Commission has embraced the role of trail steward by taking on initiatives such as developing the trail guide and installing interpretive signs with descriptions of the flora and fauna found along the trail, along with information about protecting the local watershed.



Bucolic/Natural Experience

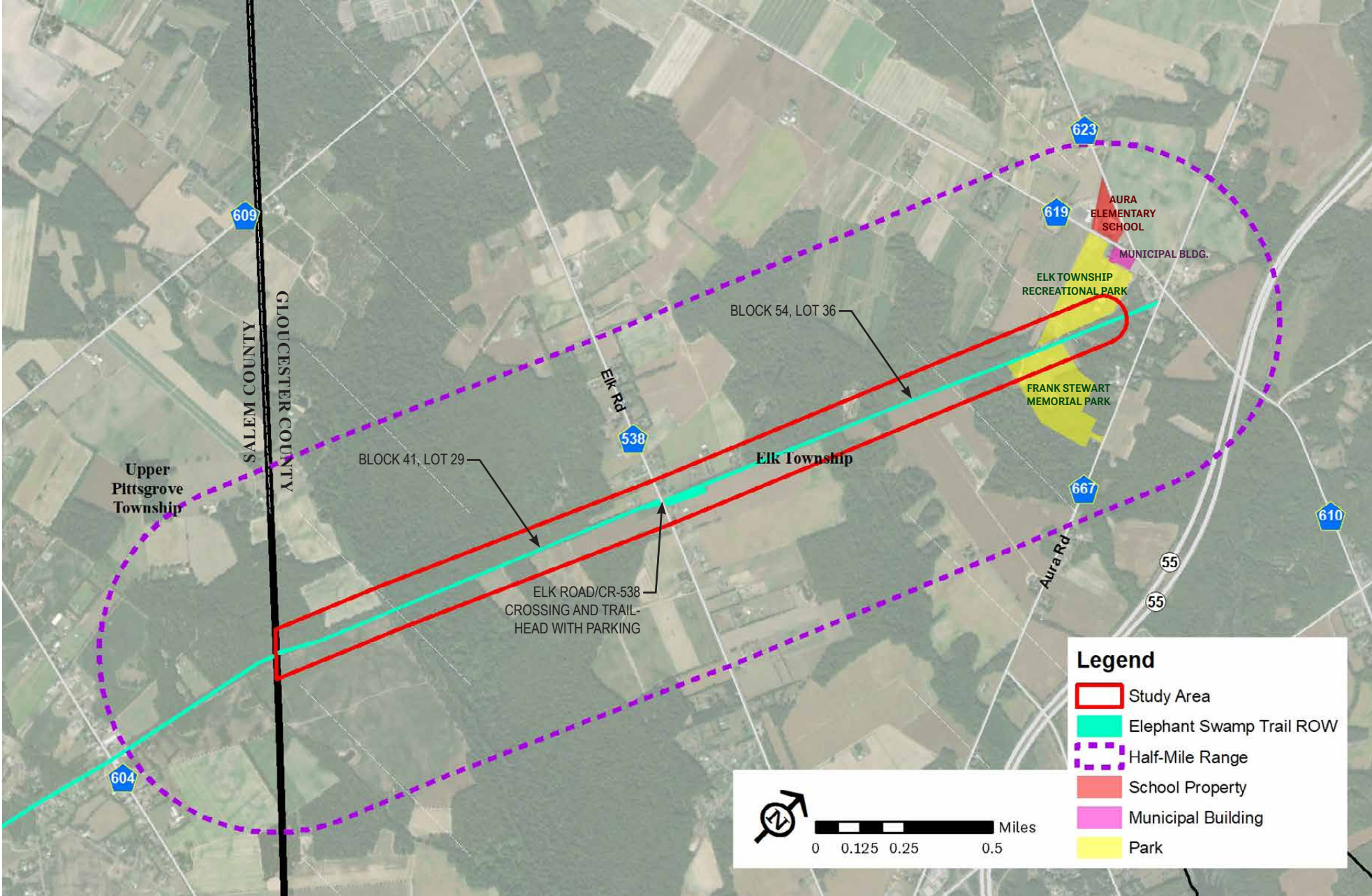
The Elephant Swamp Trail provides a unique experience that draws you into nature with attractive views of the surrounding woodlands and agricultural landscape. The trail is shaded by a canopy of oak, maple, sweetgum, and pine that has matured around the former railroad right-of-way over more than a century.



Future Connections

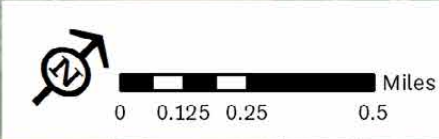
According to the [Circuit Trails website](#), "Gloucester County is planning to connect the Elephant Swamp to the Monroe Township Bike Path and downtown Glassboro with a paved surface. When completed this segment will become part of the Glassboro Elk Trail." The Glassboro Elk Trail is included in the Delaware Valley Regional Planning Commission Transportation Improvement Program ([DVRPC TIP](#)) with \$3.9 million allocated for construction.

Map 2: Trail Overview



Legend

- Study Area
- Elephant Swamp Trail ROW
- Half-Mile Range
- School Property
- Municipal Building
- Park



Elephant Swamp Trail in Elk Township

Typical Trail Conditions

Elephant Swamp trail varies in configuration and width.

North of Elk Road, the paved area of the trail is typically 6-8 feet wide, in a double track configuration, with grass shoulders that are 2-3 feet wide.

South of Elk Road, the trail is predominantly a single track configuration, with paved areas that vary from 5-12 feet wide, and variable shoulders.

A trail that accommodates pedestrians and bicyclists in two-way travel should meet the standards set forth in the [AASHTO Guide for](#)

[the Development of Bicycle Facilities](#) (2012, 4th Edition, Section 5.2.1). These standards include:

- The trail should have minimum paved width of 10 feet,
- In constrained areas, a minimum paved width of 8 feet can be acceptable, and
- The trail should include minimum 2-foot-wide shoulders that are clear of lateral obstructions (signs, poles, shrubs, rocks, etc.)

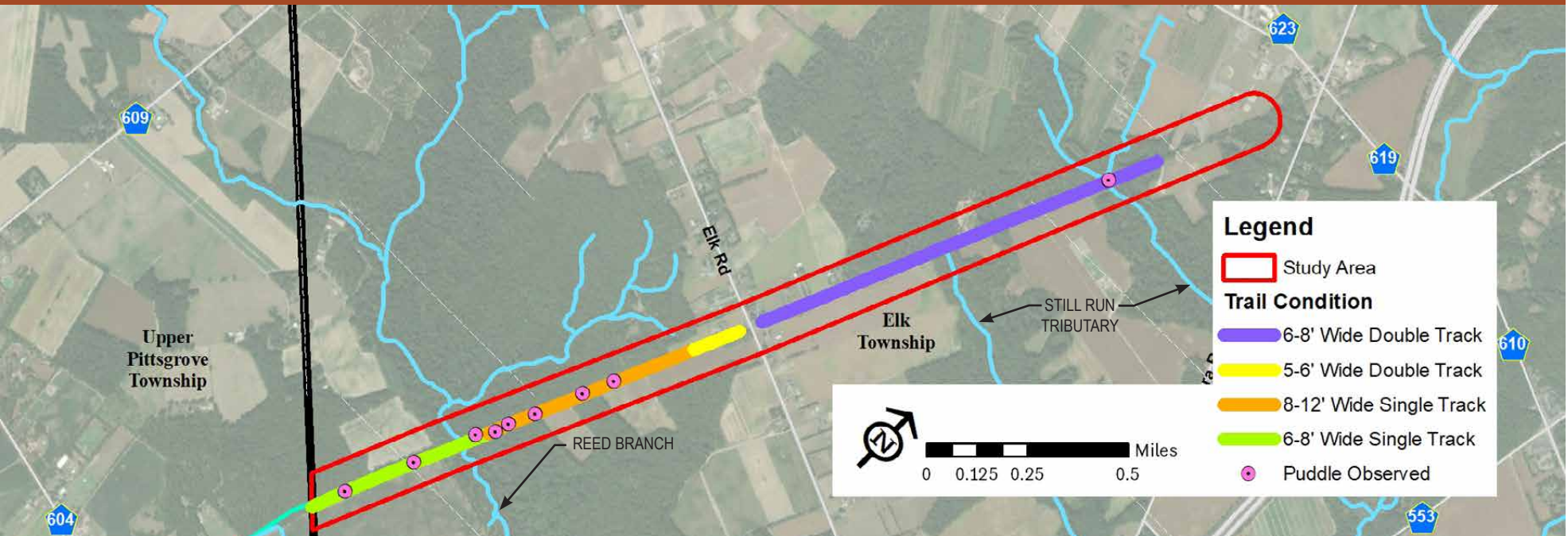
For accessibility, the trail should meet the standards set forth in the [\(Proposed\) Public Rights-of-Way Accessibility Guidelines](#)

[\(PROWAG\)](#). These standards include:

- The shared use path surface should be firm, stable, and slip resistant,
- Running slope should not exceed 5%,
- Cross slope should not exceed 2%, and
- Vertical surface discontinuities should not exceed 0.5 inches.

Both sets of standards are achievable for any resurfacing project of the Elephant Swamp Trail. Meeting these standards will most likely be necessary if federal funds are to be applied to trail improvements.

Map 3: Typical Trail Conditions



6-8' Wide Double Track



5-6' Wide Double Track



8-12' Wide Single Track



6-8' Wide Single Track



Environmental Considerations

The purpose of this brief summary of environmental considerations is to identify any significant issues, using GIS data, that could adversely affect trail improvement considerations for Elephant Swamp Trail.

Planning Context

According to *New Jersey State Development and Redevelopment Plan State Planning Areas*, the trail traverses Suburban Planning Area (PA 2), Rural Environmentally Sensitive Area (PA 4B), and Environmentally Sensitive Planning Area (PA 5). Forest, waterways, and wetlands also traverse the trail. The proximity of PA 4B and PA 5, along with existing environmentally sensitive features, increases the potential for environmental impacts and the need for associated environmental permits for potential trail improvements.

Watercourses/Wetlands

The trail intersects Still Run tributaries at two locations, and also intersects the Reed Branch. Still Run and Reed Branch have an NJDEP Surface Water Quality Standard classification, per N.J.A.C. 7:9B, of FW2-NT, which indicates a non-trout freshwater waterway. Both are tributaries of the Maurice River, which drains to the Delaware Bay may therefore be subject to the Delaware River Basin Water Code.

Based on NJDEP Land Use Land Cover Data (see Map 4), the trail intersects mapped freshwater wetlands at three locations. NJDEP Freshwater Wetlands Permits (N.J.A.C. 7:7A) are required for impacts to freshwater wetlands and/or associated transition areas, as well as State Open Waters. Transition areas vary from 0 feet for state open waters/

ordinary resource value wetlands, to 150 feet for exceptional value wetlands. Further study of wetland impacts will need to be conducted to determine the exact size and locations of wetland impacts and transition areas.

When pursuing the NJDEP Freshwater Wetlands Permit, (N.J.A.C. 7:7A), the project will be required to:

- Show minimization of impacts
- Coordinate with study/findings for Threatened and Endangered (T&E) species,
- Address wetland mitigation (on-site, off-site, or via banking)

As such, a potential future trail project will be subject to N.J.A.C. 7:7A Freshwater Wetlands Protection Act Rules. Coordination with NJDEP will be required to ensure that any potential future trail project protects or improves water quality and complies with applicable permitting requirements.

Stormwater Management

Resurfacing of the Elephant Swamp Trail would be considered a “Major Development” exceeding one acre of disturbance.

Compliance with stormwater management rules (NJAC 7:8) will be required. However, linear development projects such as trails that are no more than 14’ wide and constructed of permeable material are exempt from the groundwater recharge, stormwater runoff quantity, and stormwater runoff quality requirements. Based on past experience with similar trail projects constructed using the trail surface alternatives outlined within this report, it is anticipated this project would meet this exemption.

FEMA Floodplains/Riparian Zones

The trail right-of-way intersects FEMA Flood Hazard Area Zone A (1% annual flood chance) at two locations, and intersects likely riparian zones at additional locations based on the proximity to the Flood Hazard Area. As a Major Development, an individual NJDEP Flood Hazard Area Permit will be required. Riparian zones will vary from 50 feet to 150 feet, and an assessment of water dependent T&E species will be required to determine the actual riparian zone width.

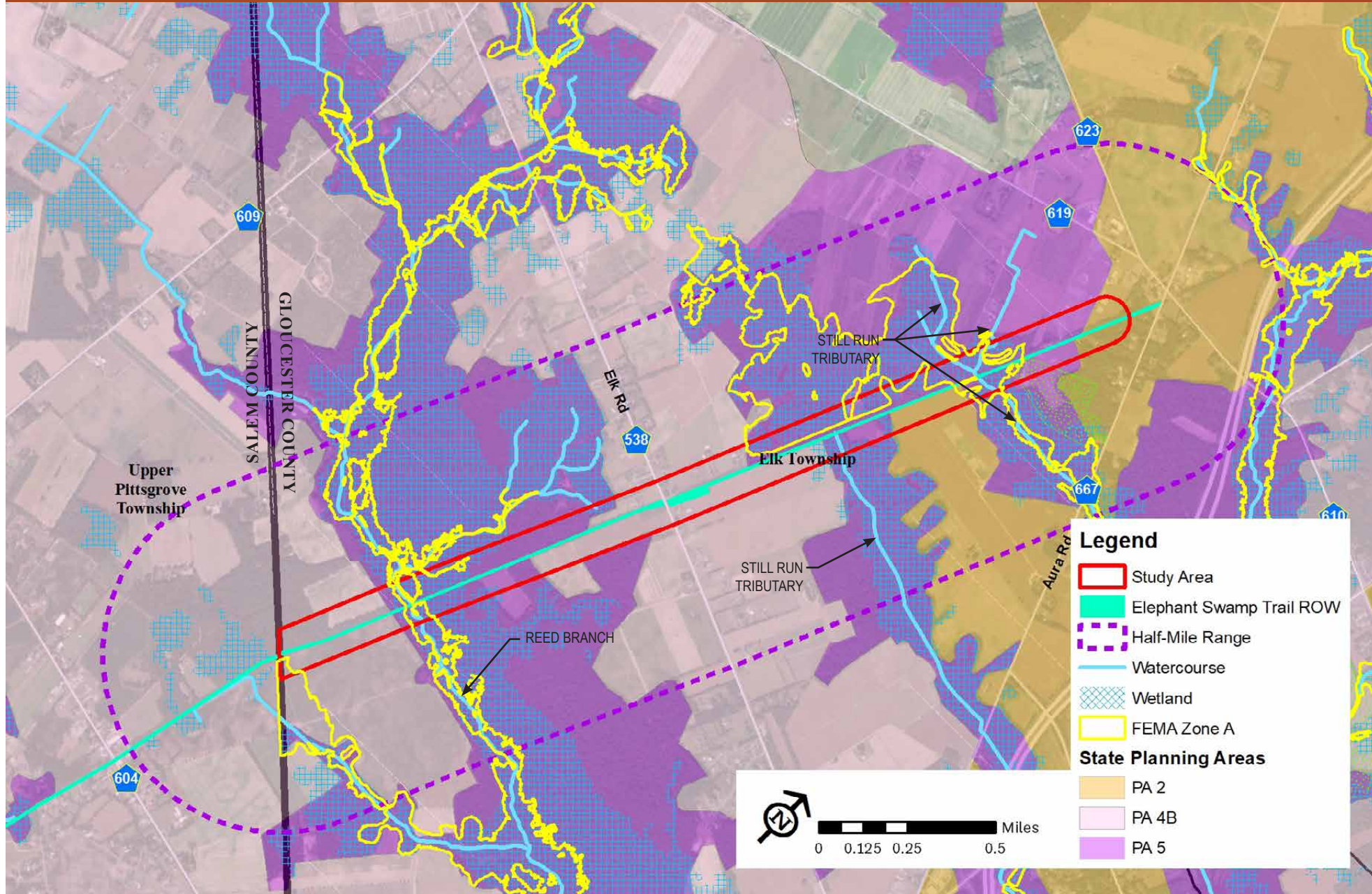
When pursuing the NJDEP Flood Hazard Area Permit, (N.J.A.C. 7:13), trail improvements would be subject to the following requirements:

- No fill allowed within a floodplain
- Impacts to flood hazard areas must be evaluated to show no increase in off-site flood elevations
- If impacts to riparian zones exceed what is allowable, mitigation will be required (on-site, off-site or via banking)

Green Acres/Historic Preservation

According to available data, the trail intersects one tract of open space that has been recipient of funds through the Green Acres Program—Frank Stewart Memorial Park near the northern trailhead. As such, proposed changes to this area may be subject to review and approval of the State of New Jersey Green Acres Program (though it is anticipated that any changes made to the trail would be supportive of the park). The trail does not intersect any mapped historic properties or districts.

Map 4: Environmental Considerations



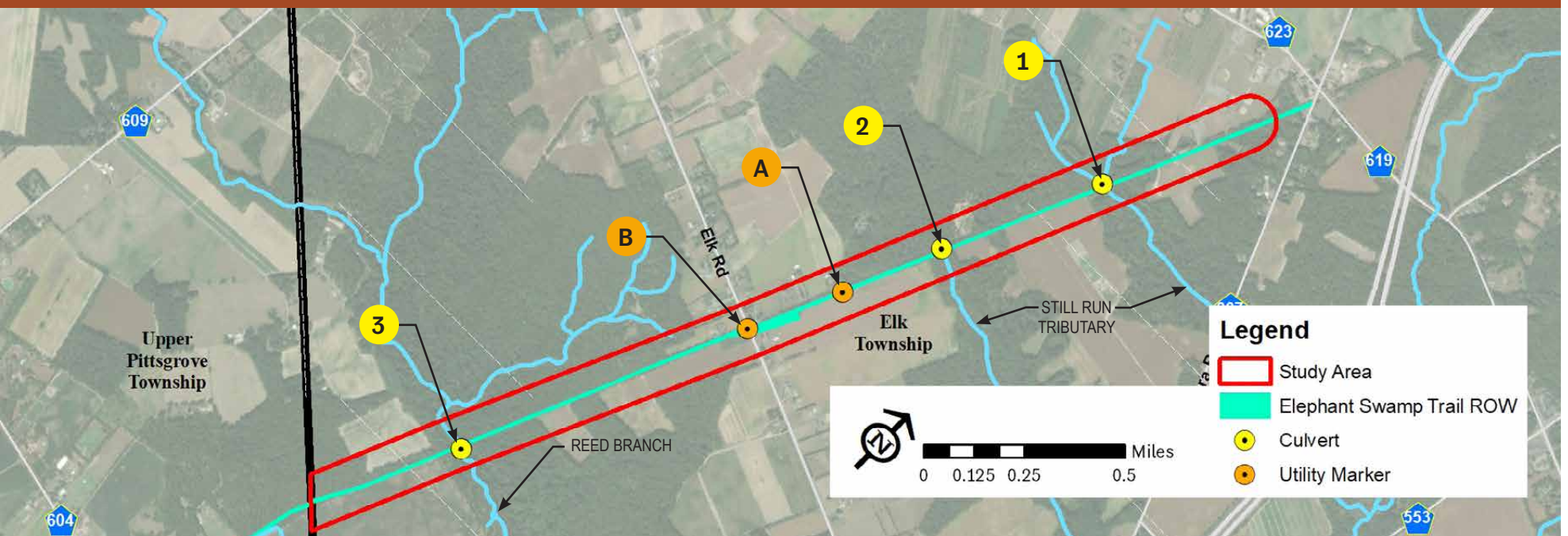
Structures & Utilities

Three culverts were observed along the Elephant Swamp Trail, providing flow from the west side of the trail to the east. As a component of future design, the culverts should receive an engineering-level inspection to ensure that they are structurally and functionally sound, prior to any resurfacing project.

Culvert #3 (see Map 5) has steep banks that are directly adjacent to the trail surface. These banks constitute a sharp grade change of over 30 inches, and as such, a guardrail should be provided on both sides for the trail for the safety of trail users.

Utility markers were also observed along the trail right-of-way, including gas pipeline and AT&T Transcontinental Cable. As a component of future trail design, a thorough review of the right-of-way should be conducted to determine all utility impacts. Utility owners should be coordinated with during the design phase.

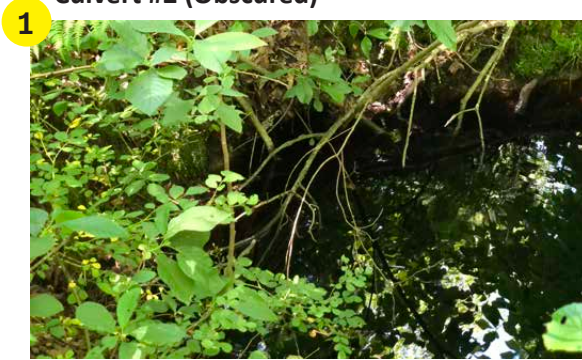
Map 5: Structures and Utilities



Culvert #1



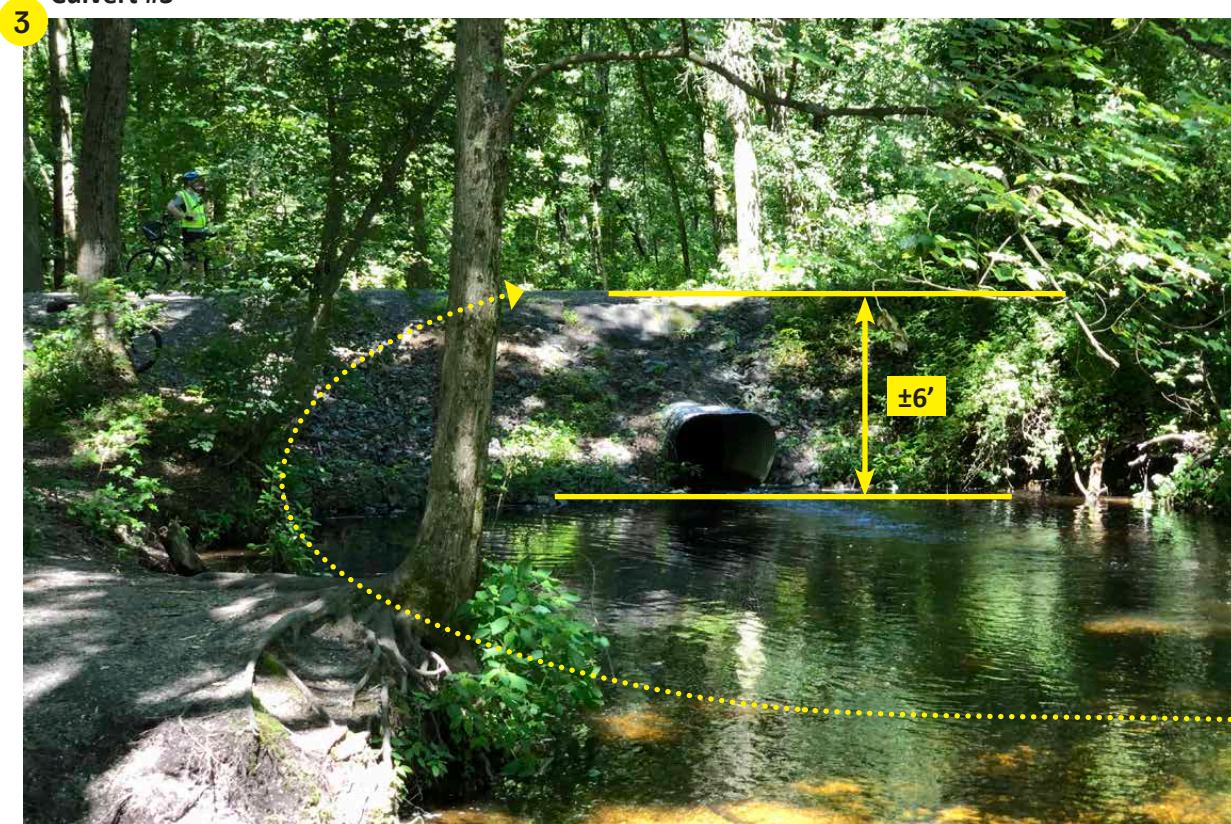
Culvert #2 (Obscured)



AT&T Cable Marker



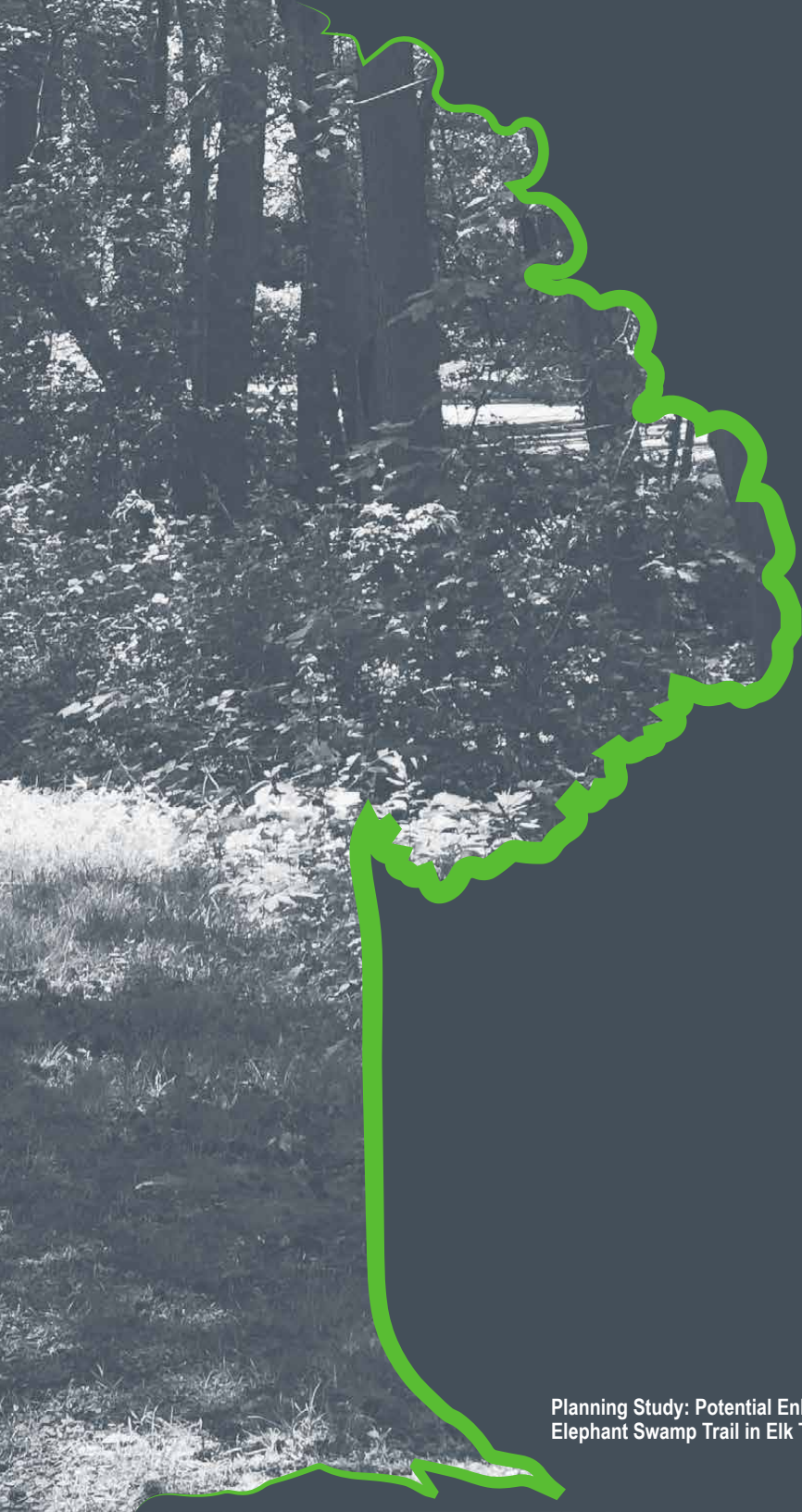
Culvert #3



Gas Pipeline Marker







Conceptual Design Opportunities

Issues and Opportunities Overview



Introduction

Based on input from Elk Township and analysis of existing conditions, three significant design issues of Elephant Swamp Trail include:

1. Trail access and arrival
2. Trail surface/accessibility
3. Roadway crossing

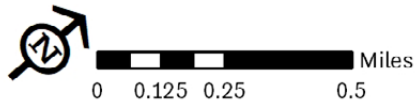
This section describes potential solutions in the form of concept level designs along with order-of-magnitude cost estimates.

Comments and discussion that was conducted at the Online Public Meeting (01/13/2021) indicate a general appreciation for the trail as a bucolic setting with access to nature and a rustic appeal. The design concepts, as shown in this study, intend to honor these preferences while presenting solutions that meet current standards for safety and accessibility.

Map 6: Issues and Opportunities indicates the general location and extent of existing issues with the Elephant Swamp Trail and where conceptual design solutions are applicable.

It is anticipated that Elk Township will be able to use these concepts and the order-of-magnitude cost estimates as a basis upon which to apply for funding for future steps of design (including additional public input) and construction.

Map 6:
Issues and Opportunities



ISSUE
Where the trail crosses Elk Road/CR-538, the trail is discontinuous and the crossing is not marked.

ISSUE
The trail surface is inconsistent in width and paving material. Large puddles narrow the trail at various points.

ISSUE
Access to the trailhead from the main park entrance on Whig Lane is difficult. The entrance sign does not indicate that the trail is within the park, and the trailhead is remote.

OPPORTUNITY
Continue trailhead, trail surface, and roadway crossing improvements to trail terminus in Elmer.

CONCEPT 3 OPPORTUNITY
Provide a continuous trail with a high visibility crossing, advance warning signs, and curb ramps.

CONCEPT 2 OPPORTUNITY
Resurface the trail to meet width and accessibility standards for a shared use path.

CONCEPT 1 OPPORTUNITY
Provide signage and wayfinding to direct trail users to a new trailhead in a more prominent location with associated parking (to alleviate crowding at the Elk Road/CR-538 trailhead).

OPPORTUNITY
Future Circuit Trail connection to Glassboro.

Trail Access and Arrival

at Elk Township Recreational Park

Existing Conditions

Elephant Swamp Trail is anchored in the north by Elk Township Recreational Park. The park provides access to the trail as well as the otherwise landlocked Frank Stewart Memorial Park. Together, the two parks provide:

- ±50 acres with athletic fields, playground, courts, and a walking path
- Parking capacity:
 - 56 spaces (includes 2 ADA) in lot on Whig Lane
 - 107 spaces (includes 2 ADA) in central lot
 - 20 spaces (includes 1 ADA) in south lot
 - ±70 spaces on two informal/unstriped areas
- Restroom/portalet
- Elephant Swamp Trail signage at trailhead

Trail Access & Identification Issues

The main entrance to Elk Township Recreational Park from Whig Lane has an attractive park identification sign, but from Whig Lane, there is no indication that the trail is accessible from within the park.

Within the park, the existing trailhead is remote and there is no wayfinding information to direct people to the trail.

There are issues with crowded parking at the trailhead at Elk Road/CR-538 (about a mile south of the park).

Potential Solutions

1.1 Wayfinding

Provide wayfinding signage to guide trail users to the trailhead within Elk Township Recreational Park:

- Supplement the existing park identification sign on Whig Lane with a placard to indicate the Elephant Swamp Trail
- Provide wayfinding signage to guide trail users from the Whig Lane entrance to the southernmost parking lot within Elk Township Recreational Park

1.2 Trailhead

Relocate the existing trailhead to a new location adjacent to the southernmost parking lot within Elk Township Recreational Park:

- Utilize the existing parking lot for trail access (there is an existing 20-space lot, and there is space to increase capacity in the future, if necessary)
- Relocate the trailhead (including the trail identification sign by the Girl Scouts) adjacent to the parking lot and include amenities (benches, receptacles, trail map, portalet, bike repair station, etc.)
- Maintain vehicle access between Elk Township Recreational Park and Frank Stewart Memorial Park (configure the trail parallel to the vehicle access lane, separated by a grass buffer)

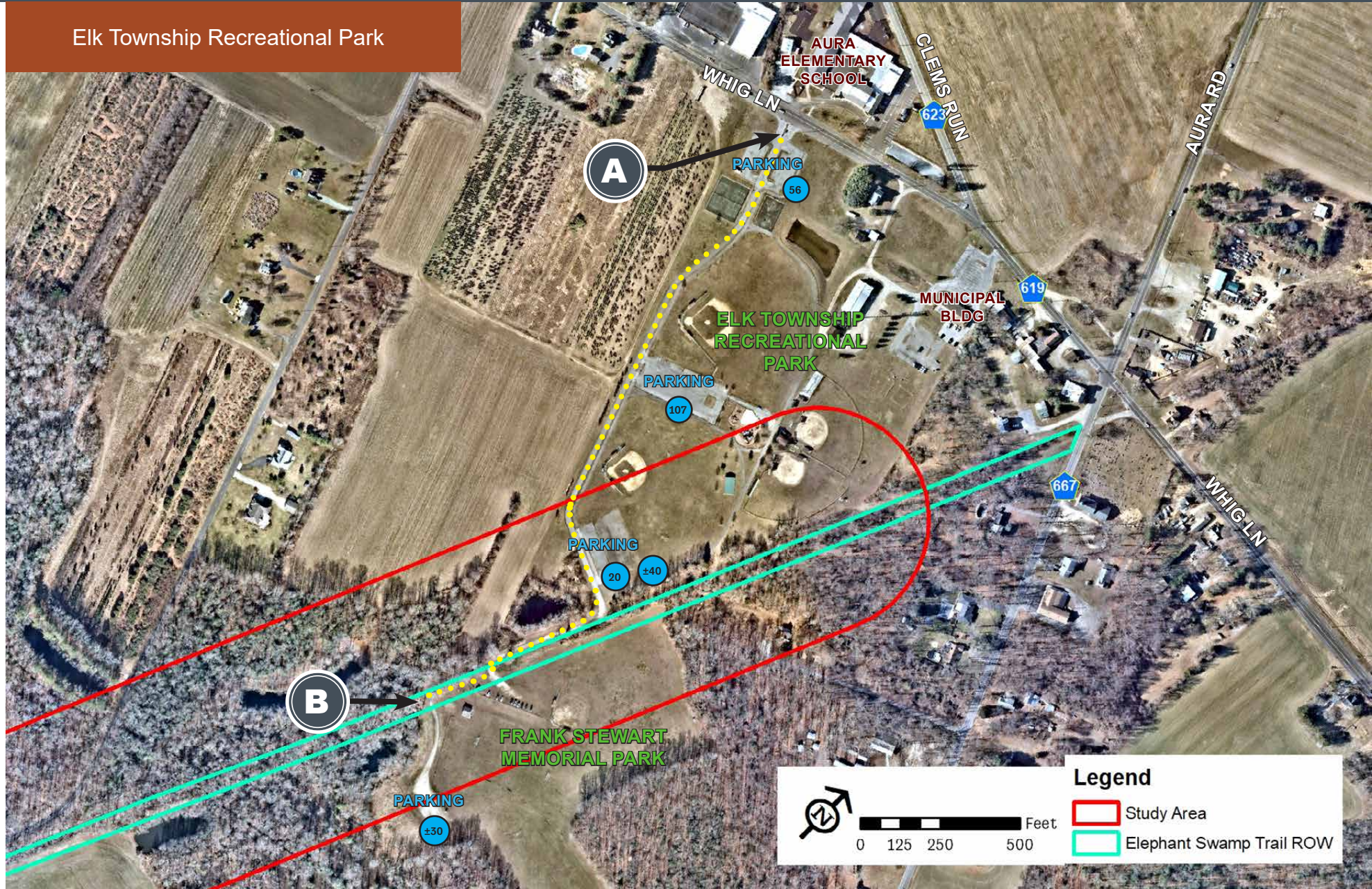


Issue: The park identification sign at Whig Lane does not indicate the Elephant Swamp Trail



Issue: The existing trailhead is remote and there is no wayfinding signage to guide users to the trail

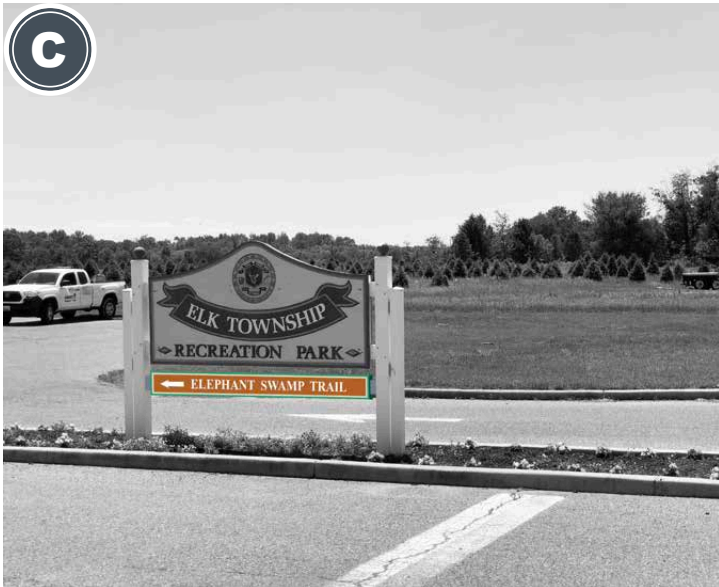
Elk Township Recreational Park



Trail Access and Arrival

at Elk Township Recreational Park

1.1 Wayfinding



Supplement the existing park identification sign on Whig Lane with a placard to indicate the Elephant Swamp Trail

D

Qty. 2

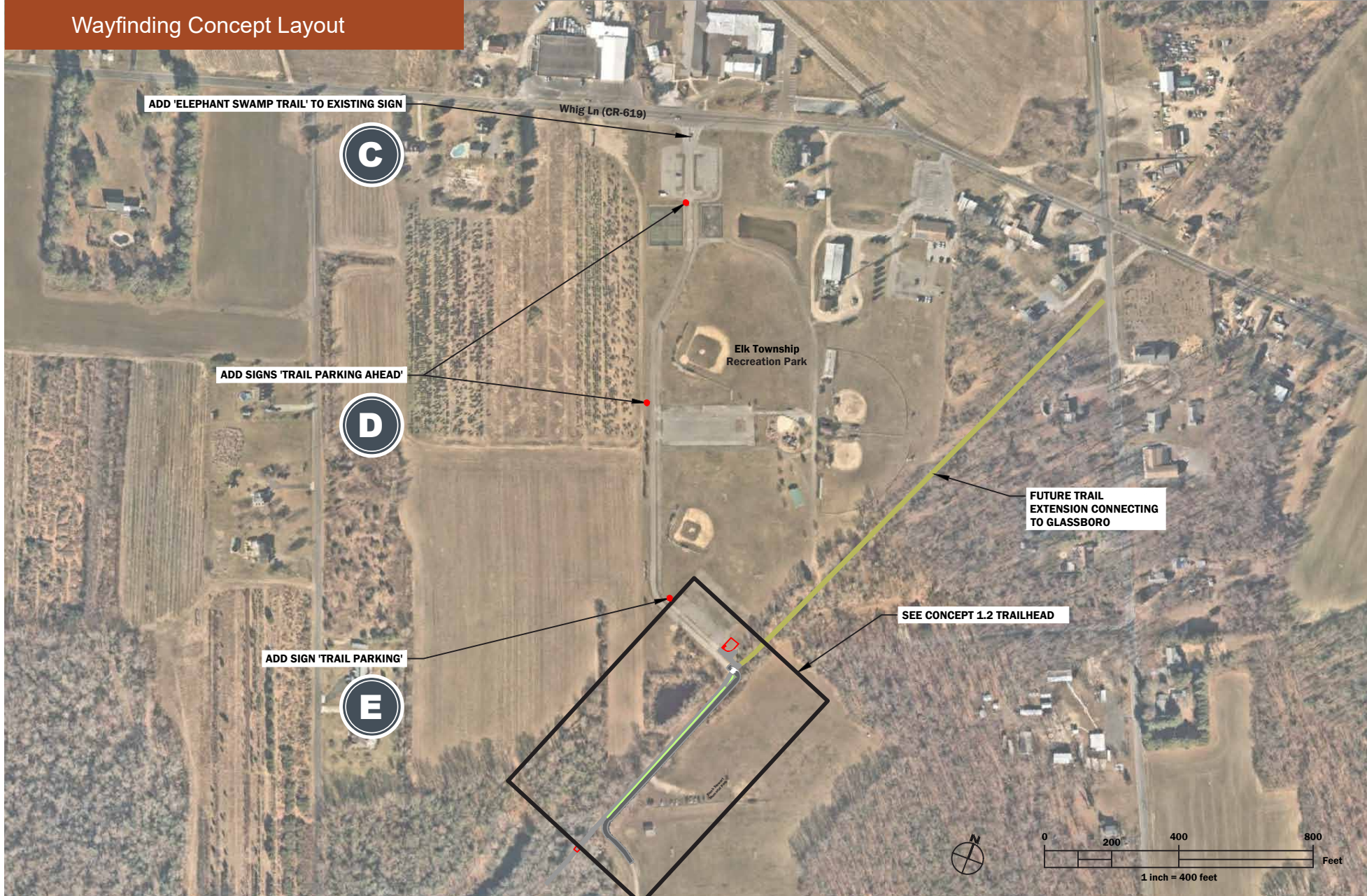


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Provide wayfinding signage along the main park road to guide trail users from the Whig Lane entrance to the southernmost parking lot within Elk Township Recreational Park. The conceptual placards shown here are a modified version of the MUTCD RS-068 Hiking Trail sign.

Wayfinding Concept Layout



Trail Access and Arrival

at Elk Township Recreational Park

1.2 Trailhead



Maintain vehicle access between Elk Township Recreational Park and Frank Stewart Memorial Park

Bike repair station

Portalet with surround

Trail map kiosk

Provide benches and receptacles

Utilize existing parking lot for trail access

Relocate the existing trail identification sign (by Girl Scouts)

Trailhead Concept Rendering

Trailhead Concept Layout



Trail Surface & Accessibility

Existing Conditions

The trail surface of the Elephant Swamp Trail varies within the study area. North of Elk Road, where the trail is predominately double track, the surface is compacted earth with the grass that grows between the treads providing some general stabilization. South of Elk Road, where the trail is predominately single track, the surface consists of variations of crushed stone/compacted fines, with some areas of compacted earth.

Trail Surface Issues

The paved trail surface varies between 5 and 12 feet. It should meet the AASHTO standard of 10 feet wide to support shared use by pedestrians and bicyclists.

Puddles were observed at various points along the trail, principally clustered around the wetlands near the Reed Branch. The puddles constrict the effective operating width of the trail, and create conflict for trail users moving at different speeds or in opposite directions. The puddles indicate a need to improve grading and provide adequate stormwater drainage.

The presence of the puddles also impacts the accessibility of the trail. Where puddles occur, the trail surface cannot be considered firm, stable, and slip resistant. This limits the ability for people with mobility issues to use and enjoy the trail.

Typical trail surface north of Elk Road



Typical trail surface south of Elk Road



Typical puddles observed



Potential Solutions





The trail surface should be improved in order to maintain the Elephant Swamp Trail as an accessible and enjoyable recreation resource for people of all ages and abilities. A matrix is provided to compare potential surface improvements, including:

- A. Spot repair existing surface
- B. Repave with compacted aggregate
- C. Repave with compacted aggregate with a liquid binder
- D. Repave with porous asphalt

The option to spot repair the existing surface (A) represents a maintenance procedure that could potentially be carried out by Elk Township Public Works.

The options to repave the trail (B, C, and D) represent capital improvements for which the Township would likely apply for federal funding. These options will require consultation with NJDEP as part of design development to confirm the necessary permits. Additional public input may also be required as part of design development.

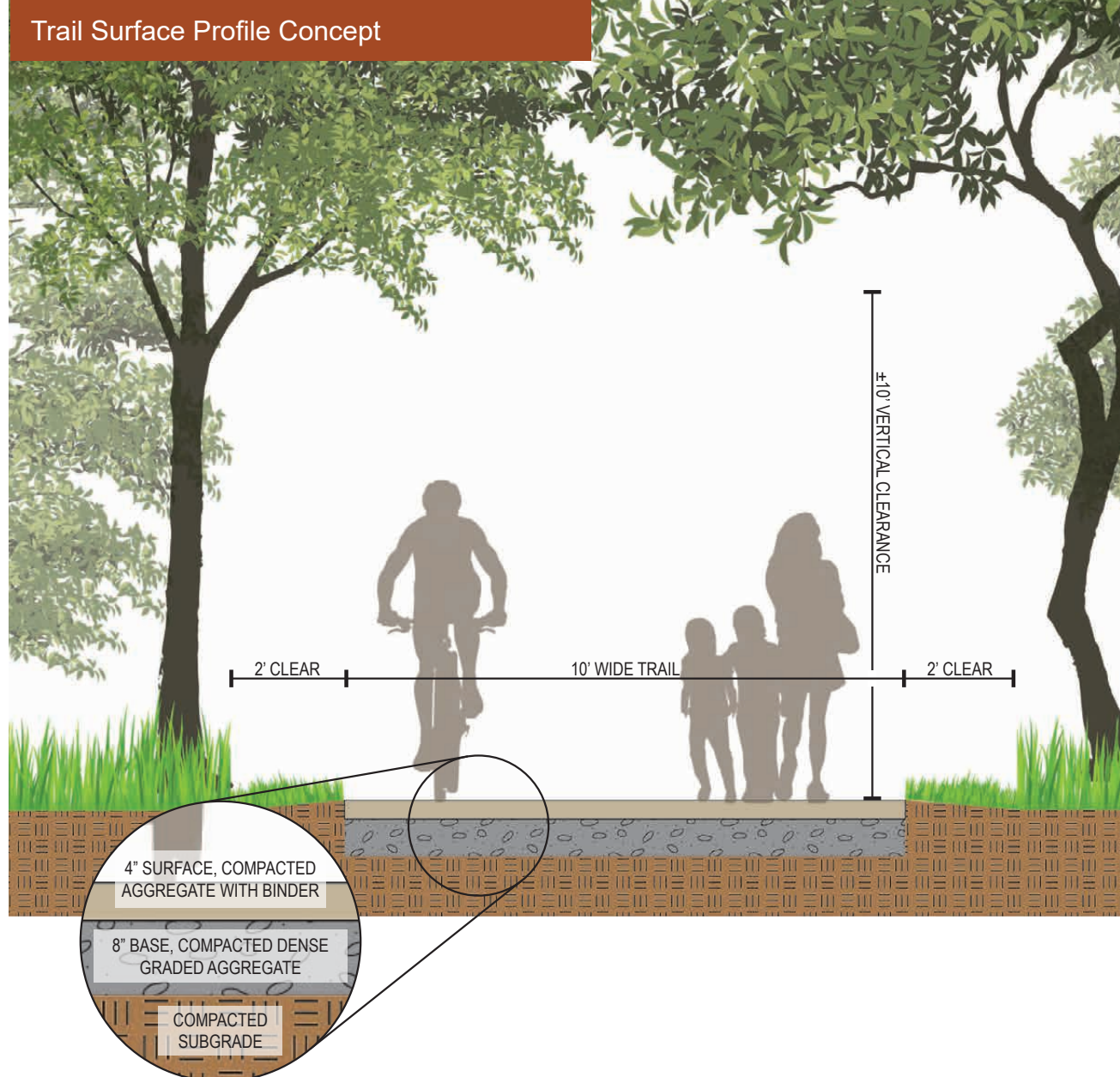
Trail Surface Improvements Comparison Matrix

	A. Spot repair existing surface	B. Repave with compacted aggregate	C. Repave with compacted aggregate with liquid binder	D. Repave with porous asphalt
Description	Maintain existing corridor surfacing and repair degraded locations with decomposed granite/crushed stone (3/8" to 1/4" size) for surfacing and dense graded aggregate (3/4" size) base course	3½ - 4" of decomposed granite or crushed stone (3/8" to 1/4" size) with fines placed over a 6" thick layer of dense graded aggregate (3/4" size) base course	4" of decomposed granite or crushed Stone (3/8" to 1/4" size), fines, and binder mix placed over a 8" thick layer of dense graded aggregate (3/4" size) base course	4" of open graded asphalt pavement mix containing 16-22% void space placed over a 6" layer of clean aggregate (No. 57) and a layer of geotextile fabric
Photo Example				
Unit Cost	\$20 - \$55 per square yard	\$55 per square yard	\$85 per square yard	\$110 per square yard
Maintenance Practices	Repair (as needed) uneven and/or damaged surface areas with stone aggregate to provide a safe surface for trail users Mow treadway weekly to bi-weekly to prevent growth of grasses/ pioneer plants	Keep surface clear of debris such as paper, grass clippings, or organic material by mechanically blowing or hand raking When plowing snow, use wheels or rubber baffle on plow to lift blade ¼" off surface	Keep surface clear of debris such as paper, grass clippings, or organic material by mechanically blowing or hand raking When plowing snow, use wheels or rubber baffle on plow to lift blade ¼" off surface Excessive loose gravel on surface can be leveled, wet down, and compacted, especially in the first year	Inspect surface infiltration rates annually during rain events Vacuum or power wash surface 2-4 times per year

Trail Surface & Accessibility

	A. Spot repair existing surface	B. Repave with compacted aggregate	C. Repave with compacted aggregate with liquid binder	D. Repave with porous asphalt
ADA Considerations	Mixed natural and gravel surfacing is not ADA compliant	Surfacing is ADA compliant when installed and maintained properly as firm and stable according to the guidelines	Surfacing is ADA compliant when installed and maintained properly as firm and stable according to the guidelines	Surfacing is ADA compliant
Pedestrian Considerations	Adequate surface for walking Inconsistent and uneven surface creates hazards	Good surface for pedestrians when maintained properly Loose gravel and dust can be a nuisance for some users	Good all-around surface when maintained properly	Good surface for pedestrians Some walkers and runners prefer softer surface
Bicyclist Considerations	Surface is susceptible to erosion Appropriate for mountain bikes Not appropriate for road bikes	Appropriate surface for mountain bikes Adequate surface for road bikes Loose gravel and dust can be a nuisance for some users	Appropriate surface for mountain bikes and road bikes	Appropriate surface for road bikes Acceptable surface for mountain bikes
Other Users Considerations	Not conducive to stroller use Accommodates equestrian use Does not allow for roller blading	Stroller use possible with properly maintained surface Accommodates equestrian use Does not allow for roller blading	Stroller use possible with properly maintained surface Accommodates equestrian use Does not allow for roller blading	Accommodates stroller use Not appropriate for equestrian use Accommodates roller blade use

Trail Surface Profile Concept



Compacted Aggregate with Liquid Binder

Aggregate pavements can be stabilized with structures or binding agents. Stabilizing structures, typically honeycomb grids, are common where there is heavy vehicular loading, but would not be cost effective for a pedestrian/bicycle trail. Binding agents, alternatively, include liquid emulsion or clay additives that bind and stabilize aggregate particles, suppress dust, and enhance trail surface durability. Liquid emulsion binding agents are derived from various sources, including plant resins, synthetic polymers, and petroleum. (Source: Calkins, Meg. *Materials for Sustainable Sites*, 2009).

For Elephant Swamp Trail, a plant resin-based liquid emulsion is recommended as the binding agent for the trail surface. The advantages of this type of product include:

- Maintain the rustic/natural feel of the trail, yet provide a firm, stable, and slip resistant surface
- Utilize locally quarried aggregate mix to minimize freight costs and embodied energy
- Reduce susceptibility to rainfall erosion
- Can qualify as permeable, as well as stabilize the pitch or crown of the trail to provide positive drainage
- Minimize maintenance/repair effort

Roadway Crossing

at Elk Road (CR-538)

Existing Conditions

The Elephant Swamp Trail intersects a single road in Elk Township: Elk Road (CR-538). Coordination will have to occur between Gloucester County and Elk Township to ensure that proposed solutions are compatible with any applicable standards for County roadways.

Roadway Crossing Issues

Traveling north to south, a trail user encounters the following issues at Elk Road (CR-538):

- There is no indication of where to cross the roadway, nor how to anticipate oncoming traffic
- Once across the roadway, the trail user must traverse the parking lot drive aisle, with no separation from motor vehicles pulling into the parking lot, and into/out of parking spaces

For the motorist, there is no indication of a trail crossing that may present an encounter with bicyclists and pedestrians in the roadway.

Potential Solutions

The following design interventions can be considered:

- Provide a high-visibility crosswalk across Elk Road (CR-538)
- Provide a stop sign and stop bar to the trail user; consider use of fence and/or bollards to direct trail users on approach to the roadway crossing
- Re-align the parking lot drive aisle to the east, and make the trail continuous
- Provide advance warning signage on the roadway, following MUTCD guidelines
- Consider pavement markings in advance of the crosswalk
- Consider use of flashing beacons that can be actuated by the trail user to alert motorists

H Trail user perspective, view on approach from south



I Motorist perspective, view on approach from west



Existing Elk Road (CR-538) Crossing

ELK ROAD / CR-538	
Jurisdiction	Gloucester County
Lanes	2
Speed Limit	45 MPH
Traffic Volume	3395 (as per Straight Line Diagram, 2016)

RAILROAD AVENUE	
Jurisdiction	Elk Township
Lanes	2
Speed Limit	35 MPH

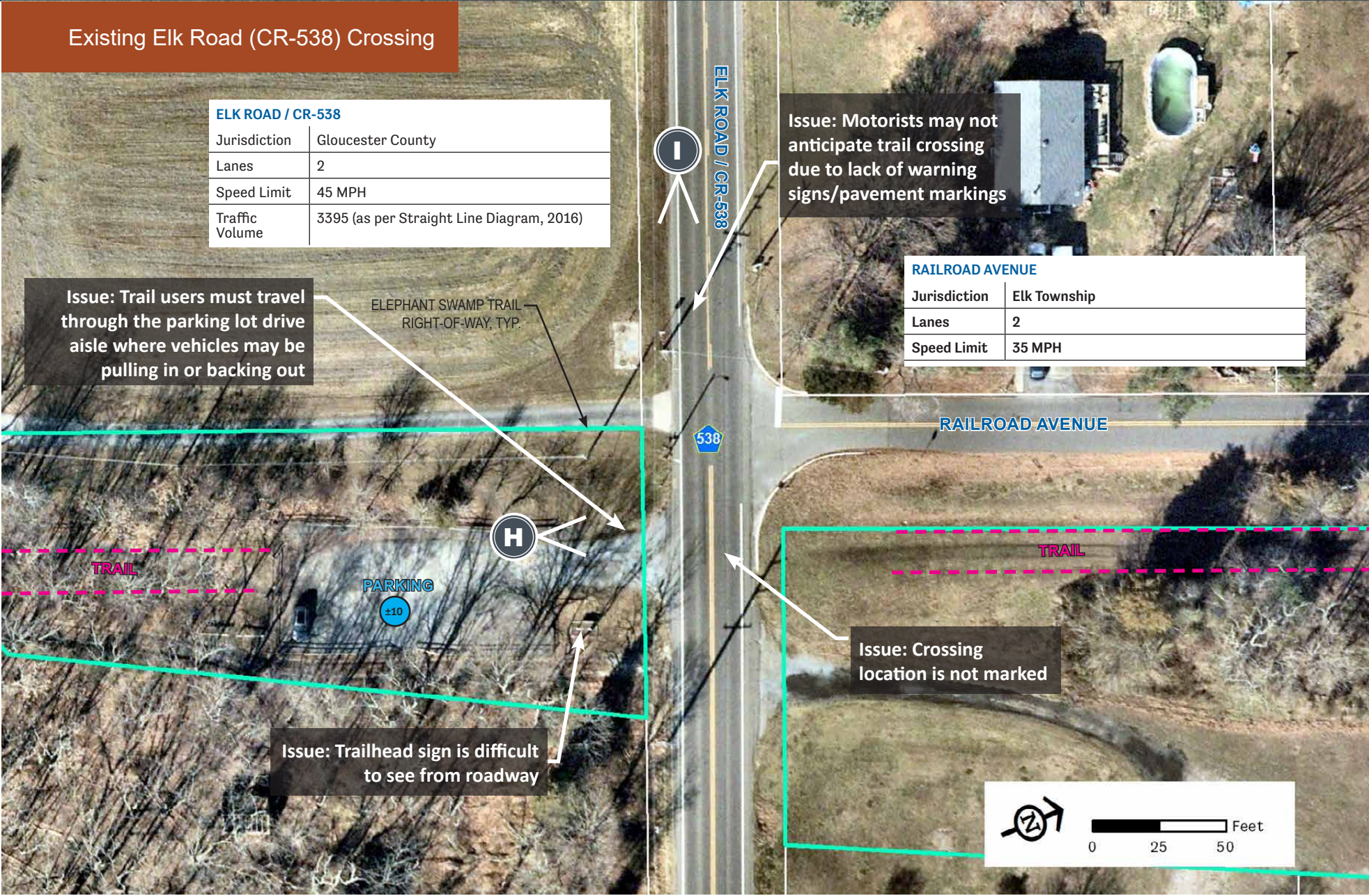
Issue: Trail users must travel through the parking lot drive aisle where vehicles may be pulling in or backing out

ELEPHANT SWAMP TRAIL RIGHT-OF-WAY, TYP.

Issue: Motorists may not anticipate trail crossing due to lack of warning signs/pavement markings

Issue: Crossing location is not marked

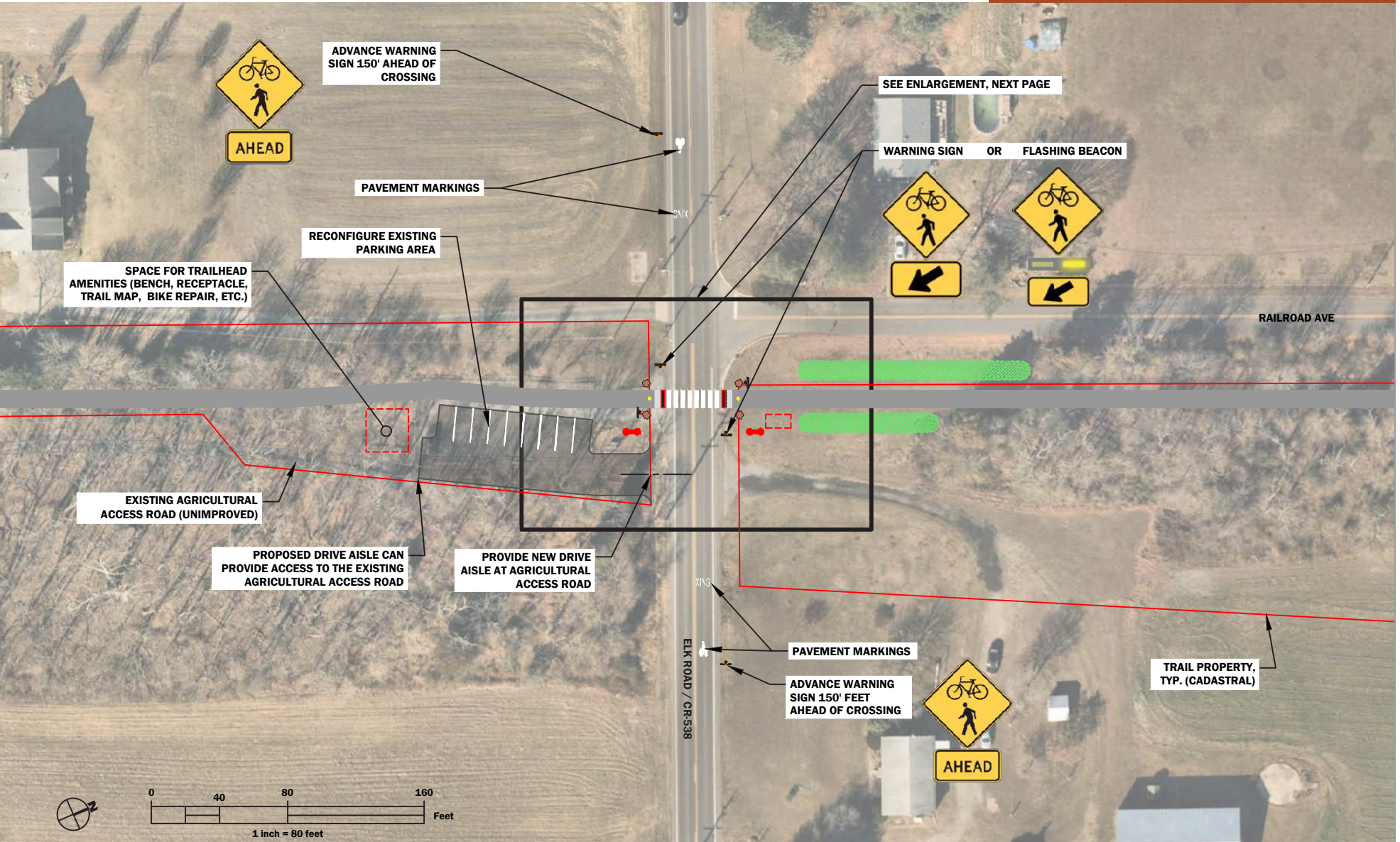
Issue: Trailhead sign is difficult to see from roadway



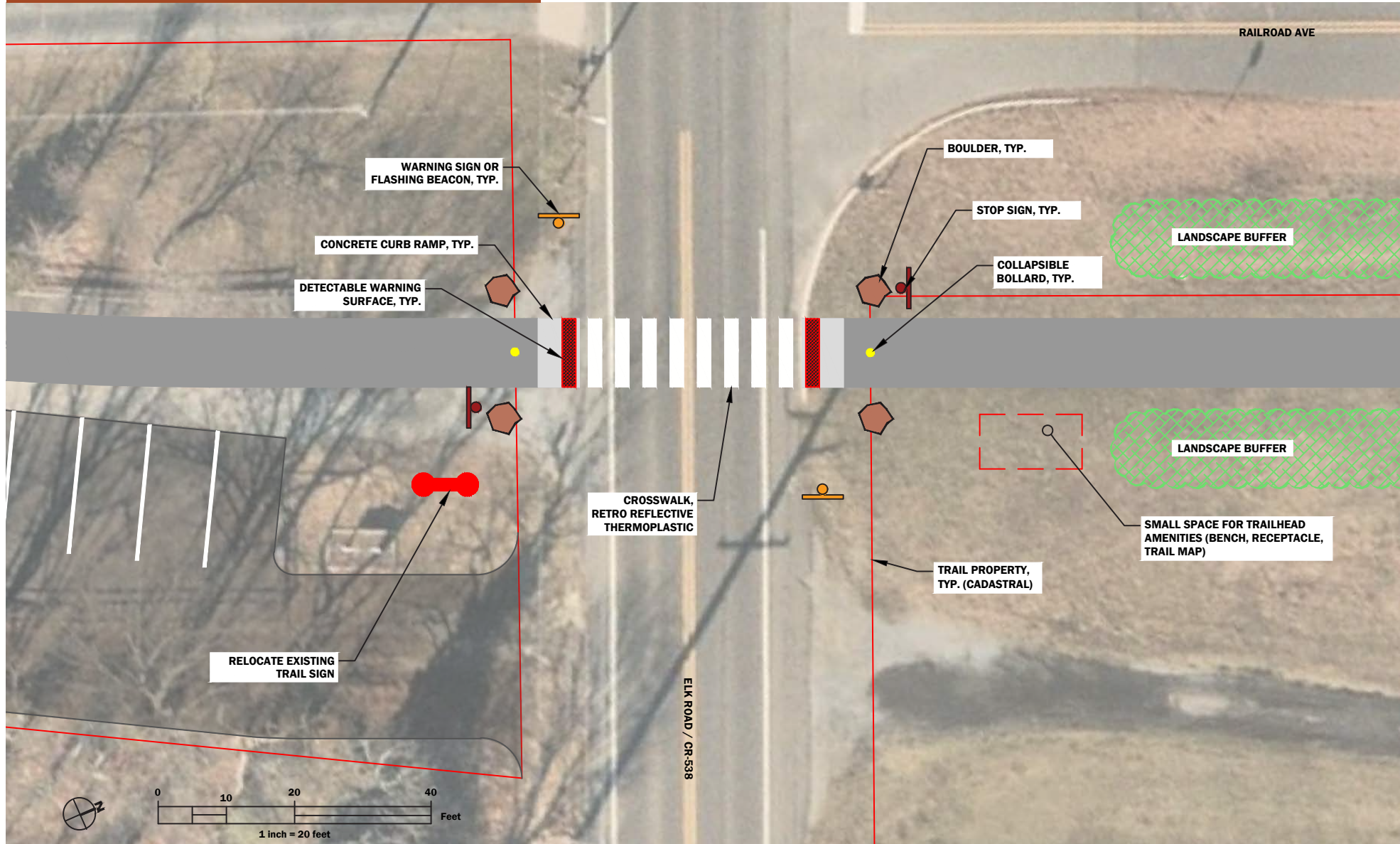
Roadway Crossing

at Elk Road (CR-538)

Crossing Concept Layout



Crossing Concept Layout (Enlargement)



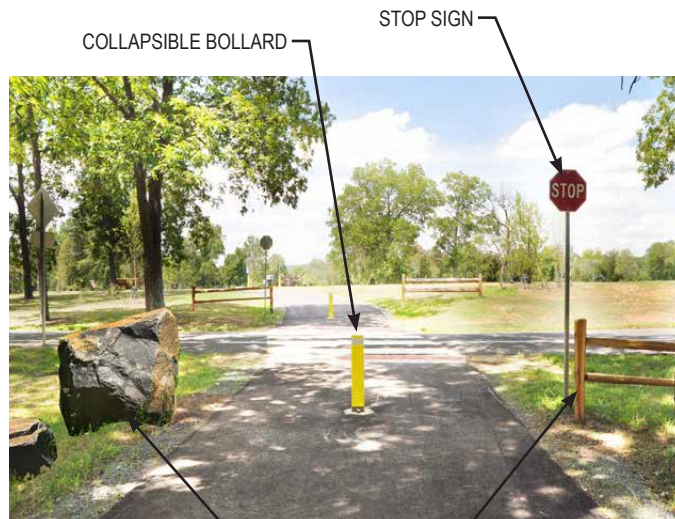
Roadway Crossing

at Elk Road (CR-538)

Crossing Concept Rendering



Typical Crossing Elements

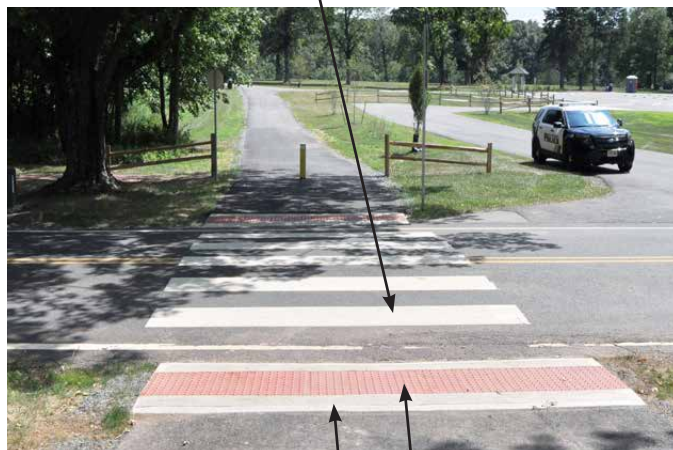


COLLAPSIBLE BOLLARD

STOP SIGN

FENCING OR BOULDERS

THERMOPLASTIC 'CONTINENTAL' STYLE CROSSWALK



CURB RAMP
DETECTABLE WARNING SURFACE



ADVANCE WARNING SIGN

PAVEMENT MARKINGS

WARNING SIGN AT CROSSING



RECTANGULAR RAPID FLASHING BEACONS (RRFBs), USER-ACTUATED, SOLAR POWERED, ALTERNATIVE TO WARNING SIGN AT CROSSING

Order-of-Magnitude Cost Estimate

Line	Concept	Description	Order-of-Magnitude Cost Estimate
0.1	1	Trail Access and Arrival at Elk Township Recreational Park	\$143,000
0.2	2	Trail Surface & Accessibility	\$1,582,000
0.3	3	Roadway Crossing at Elk Road (CR-538)	\$73,000
0.4		Sub-Total	\$1,798,000
0.5		Contingencies, contractor mobilization, and bonding (assume 25%)	\$450,000
0.6		Estimated survey, design, and permitting fees (assume 20%)	\$360,000
		Total Order-of-Magnitude Cost Estimate:	\$2,608,000

Order-of-Magnitude Cost Estimate Assumptions and Exclusions:

This order-of-magnitude cost estimate has been developed without field survey or detailed design. The purpose of this estimate is to identify rough costs related to trail improvements.

1. Cost estimate excludes the following:
 - Potential site lighting
 - Maintenance
 - Maintenance & Protection of Traffic
 - Right-of-way and utility impacts or relocation
2. Standard MUTCD signs and striping treatments may be installed by local DPW, with consultation and approval of Gloucester County Engineering.
3. Excavation of existing surface material may contain regulated or hazardous materials. Testing and potential additional cost for handling, removal, and treatment of material is not included, as it cannot be confirmed or estimated at this time. Material testing should be incorporated into future phases of this project. If a hazardous materials screening is performed and any contamination is found from the former railroad, there will be additional disposal costs for excavated material.
4. Culvert crossings would require more detailed design.

Trail Access and Arrival

at Elk Township Recreational Park

Line	Description	Unit	Quantity	Unit Cost	Estimated Cost
1.1	Install supplemental placard "Elephant Swamp Trail" on existing entrance sign at Elk Township Recreational Park	EACH	1	\$750.00	\$750.00
1.2	Install (3) directional signs to trail within park (5 SF each)	SQUARE FOOT	15	\$50.00	\$750.00
1.3	Extend trail to proposed trailhead location (10' wide trail, 750' length, compacted aggregate with binder)	SQUARE YARD	835	\$85.00	\$70,975.00
1.4	Stabilize park roadway with crushed stone (parallel to trail extension)	CUBIC YARD	100	\$85.00	\$8,500.00
1.5	Asphalt paved connection to pathway within park	SQUARE YARD	170	\$110.00	\$18,700.00
1.6	Crosswalk striping in long life thermoplastic	SQUARE FOOT	100	\$3.20	\$320.00
1.7	Relocate existing trailhead (Girl scout) sign	EACH	1	\$500.00	\$500.00
1.8	Benches	EACH	3	\$1,200.00	\$3,600.00
1.9	Trail kiosk	EACH	1	\$7,500.00	\$7,500.00
1.10	Portalet shelter	EACH	1	\$7,500.00	\$7,500.00
1.11	Bicycle repair station	EACH	1	\$2,000.00	\$2,000.00
1.12	ADA parking lot striping, 4" thermoplastic	LINEAR FOOT	200	\$2.00	\$400.00
1.13	Trailhead paved area (compacted aggregate with binder)	SQUARE YARD	135	\$85.00	\$11,475.00
1.14	Split rail fence	LINEAR FOOT	100	\$40.00	\$4,000.00
1.15	Trees	EACH	3	\$500.00	\$1,500.00
1.16	Topsoiling	SQUARE YARD	235	\$5.00	\$1,175.00
1.17	Seeding	SQUARE YARD	160	\$2.00	\$320.00
1.18	Landscape plants	SQUARE YARD	75	\$25.00	\$1,875.00
1.19	Mulching	SQUARE YARD	75	\$3.50	\$262.50
1.20				Total:	\$142,102.50
1.21				Say:	\$143,000

Line	Description	Unit	Quantity	Unit Cost	Estimated Cost
2.1	Clearing site (Assume margins of trail area are cleared; trail length of 13,200' x 7' cleared)	LUMP SUM	1	\$30,000	\$30,000.00
2.2	Excavation, 12" depth (Soil and cinder base removal)	CUBIC YARD	5000	\$35.00	\$175,000.00
2.3	Trail Surface, 10' wide (Compacted aggregate with liquid binder (4" thick) over dense graded aggregate base course (8" thick))	SQUARE YARD	14700	\$85.00	\$1,249,500.00
2.4	Drainage Allowance (5% of trail cost)	LUMP SUM	1	\$65,000.00	\$65,000.00
2.5	Install guardrail at Reed Branch Culvert	LINEAR FOOT	60	\$120.00	\$7,200.00
2.6	Mile markers (12" diameter X 36" deep footing, mounting bracket, 4"x4"x48" post, and placard, one per quarter mile)	EACH	10	\$300.00	\$3,000.00
2.7	Furnishings and amenities (allowance)	LUMP SUM	1	\$20,000.00	\$20,000.00
2.8	Split rail fence (allowance)	LINEAR FOOT	800	\$40.00	\$32,000.00
2.9				Total:	\$1,581,700.00
2.10				Say:	\$1,582,000

CONCEPT
3

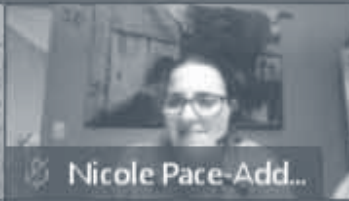
Roadway Crossing
at Elk Road (CR-538)

Cost Estimate

Line	Description	Unit	Quantity	Unit Cost	Estimated Cost
3.1	Advance Warning Sign Assemblies, Quantity 8 (36"x36" sign and 24"x12" placard (downward arrow or "ahead"))	SQUARE FOOT	88	\$50.00	\$4,400.00
3.2	Option Rectangular Rapid Flashing Beacons, Quantity 2, Solar Powered	PAIR	1	\$15,000.00	\$15,000.00
3.3	Warning and Stop Signs on trail approach, Quantity 4	SQUARE FOOT	20	\$50.00	\$1,000.00
3.4	Pavement Markings - "Bicycle symbol" and "Xing" (two markings along each roadway approach)	EACH	4	\$250.00	\$1,000.00
3.5	Crosswalk striping in long life thermoplastic	SQUARE FOOT	200	\$3.20	\$640.00
3.6	Curb Ramps with Detectable Warning Surface	EACH	2	\$3,000.00	\$6,000.00
3.7	Landscape boulders (for access control)	EACH	12	\$200.00	\$2,400.00
3.8	Collapsible bollards	EACH	2	\$1,500.00	\$3,000.00
3.9	Relocate existing trailhead sign	EACH	1	\$500.00	\$500.00
3.10	Trash receptacle	EACH	4	\$500.00	\$2,000.00
3.11	Dog waste receptacle	EACH	4	\$300.00	\$1,200.00
3.12	Bench	EACH	4	\$1,200.00	\$4,800.00
3.12	Bicycle Repair Station	EACH	1	\$2,000.00	\$2,000.00
3.13	Trailhead kiosk	EACH	1	\$7,500.00	\$7,500.00
3.14	Re-align parking lot drive aisle (excavate and install aggregate surface)	CUBIC YARD	65	\$115.00	\$7,475.00
3.15	Split rail fence (allowance)	LINEAR FOOT	200	\$40.00	\$8,000.00
3.16	Landscape (allowance)	LUMP SUM	1	\$6,000.00	\$6,000.00
3.17				Total:	\$72,915.00
3.18				Say:	\$73,000



Kevin Perry



Nicole Pace-Add...



William Riviere III



DN

Donna Nicholson



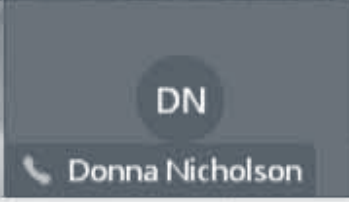
Carolyn King



Deborah Piccirillo

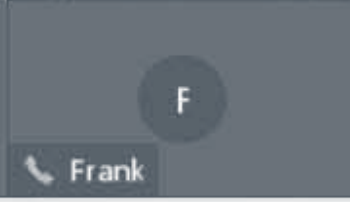


Michael Danne...



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Donna Nicholson



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Frank

ELEPHANT SWAMP TRAIL

Online Community Outreach Meeting



JANUARY 13, 20



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KB

Kassidy Buirch

Eric Der...

Appendix:

Online Community Outreach Workshop & Survey Results



Community Outreach Summary

An online community outreach workshop was conducted as a component of this study on the evening of January 13, 2021, from 7:00 - 8:00 PM. The workshop was held on that time and date to coincide with the monthly meeting time of the Elk Township Environmental Commission.

Along with the workshop, the project team developed an Online Community Survey to obtain additional public input.

The objective of the workshop was to discuss existing conditions, opportunities, and constraints along the Elephant Swamp Trail; review potential conceptual design options; provide an opportunity for input from members of the community; and publicize/invite community members to participate in the Online Community Survey.

The workshop was advertised on the Elk Township municipal website and social media. It was hosted on the GoToMeeting platform, which enabled community members to participate on computers, tablets, or smartphones, as well as by calling in on a phone. The workshop was attended virtually by 25 online logins and phone calls, was recorded, and was available to view on the Elk Township municipal website after the event.

The Online Community Survey was also made available through the Elk Township municipal website, and received 131 complete responses between its announcement on January 13 and the closing date of February 1, 2021.

Public input that was heard through the workshop and collected through the Online Community Survey was used to inform and refine the conceptual design solutions that are included in the prior section of this report. It is anticipated that any future planning, design, and construction efforts will include additional public input.

ONLINE COMMUNITY OUTREACH WORKSHOP

ELEPHANT SWAMP TRAIL
Elk Township, New Jersey

DATE: 1/13/2021 • 7:00 PM – 8:00 PM

 **Please join the meeting from your computer, tablet or smartphone.**
<https://bit.ly/elephantswamp>

 **You can also dial in using your phone.**
United States: +1 (646) 749-3122
Access Code: 714-735-349

You are invited to participate in an Online Community Outreach Workshop, as part of the Elk Township Environmental Committee Meeting, on Wednesday, January 13, 2021 from 7-8pm. Please join us to discuss the existing conditions and potential design enhancements being considered for the Elephant Swamp Trail.

Elk Township is the recipient of technical planning assistance services through the NJDOT Office of Bicycle & Pedestrian Programs. The purpose of this planning study is to enhance the safety and accessibility of the Elephant Swamp Trail and evaluate potential pedestrian and bicyclist safety and accessibility topics, including trail access, roadway crossing, and considerations for the trail surface.

If you have questions regarding the project, please contact:
Michael Dannemiller, PE
Principal Engineer
973-946-5626
michael.dannemiller@nv5.com

 **PLEASE PARTICIPATE IN THE VISUAL PREFERENCE SURVEY!**
HELP US UNDERSTAND HOW YOU USE THE TRAIL AND YOUR THOUGHTS ON POTENTIAL TRAIL ENHANCEMENTS. THANKS FOR YOUR INPUT!
<https://survey.zohopublic.com/zs/Omz7Mf>



Flyer that was used to advertise the Online Community Outreach Workshop through the Elk Township municipal website and social media.

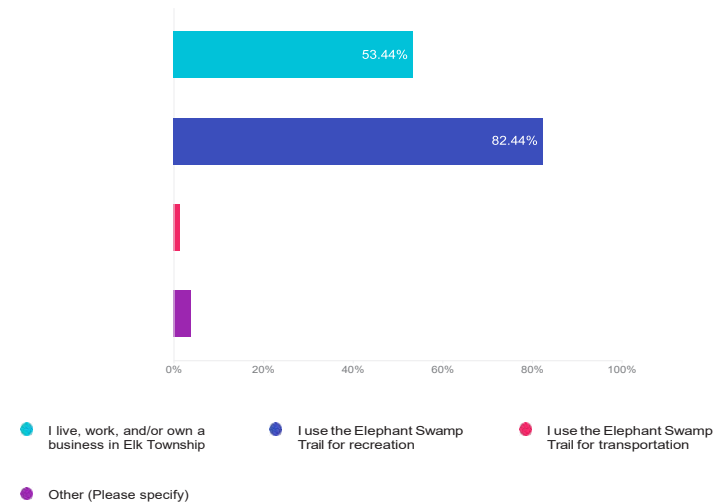
Online Community Survey Results

This section contains the results of the Online Community Survey along with a statement of interpretation to help inform development/refinement of the conceptual designs included in this study.

Question 1

How are you connected to the Elephant Swamp Trail? Check all that apply:

Answered: 131 Skipped: 0



Choices	Response percent	Response count
I live, work, and/or own a business in Elk Township	53.44%	70
I use the Elephant Swamp Trail for recreation	82.44%	108
I use the Elephant Swamp Trail for transportation	1.53%	2
Other (Please specify)	3.82%	5

OTHER:

1. Live in the township
2. Run and walk my dog
3. Run Bike Walk
4. I live across the street from it
5. I work for a regional organization that conducts planning work on South Jersey

Interpretation:

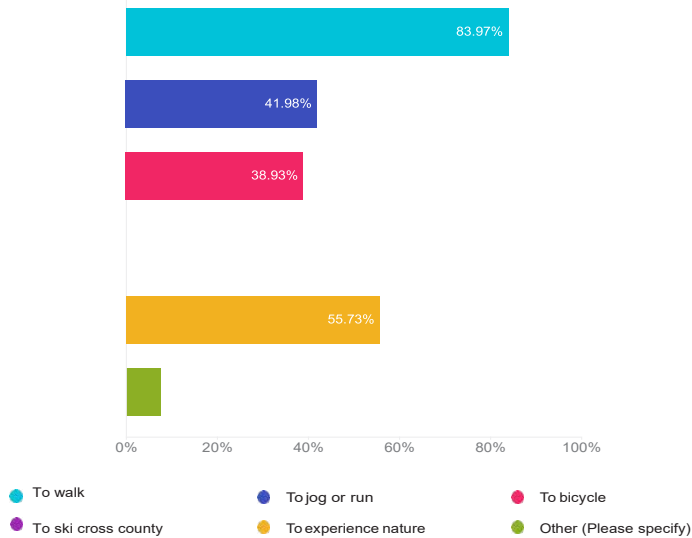
Roughly half (53%) of respondents identify as Elk Township residents. Over 80% of respondents use the trail for recreation, in contrast to less than 2% who use the trail for transportation.

This seems to indicate that, while Elephant Swamp Trail is valued by local Township residents, it is also known and used by others in the region as a recreational resource.

Question 2

How or why do you use the Elephant Swamp Trail? Check all that apply:

Answered: 131 Skipped: 0



Choices	Response percent	Response count
To walk	83.97%	110
To jog or run	41.98%	55
To bicycle	38.93%	51
To ski cross county	0.00%	0
To experience nature	55.73%	73
Other (Please specify)	7.63%	10

OTHER:

1. Community service
2. I don't use it.
3. N/A
4. Blank
5. Walk my dog
6. Dog walking
7. Walking with stroller
8. Walk my dog
9. Dog walk
10. Take my dog out

Interpretation:

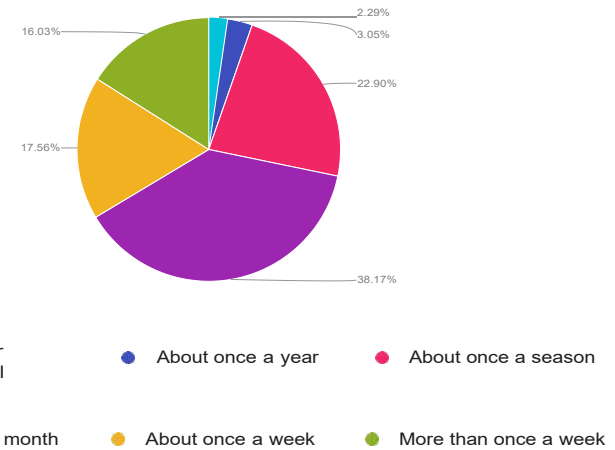
Drilling further into trail uses, to walk (84%) and to experience nature (56%) were the top responses, followed by to jog or run (42%) and to bicycle (39%).

Taken in consideration with Question #1, these responses seem to support that the existing, natural charm of the trail makes it a great place to get out and recreate, and to enjoy nature. The stewardship activities by the Elk Township Environmental Commission over the years have helped the trail to flourish.

Question 3

How often do you visit the Elephant Swamp Trail?

Answered: 131 Skipped: 0



Choices	Response percent	Response count
I have never visited the trail	2.29%	3
About once a year	3.05%	4
About once a season	22.90%	30
About once a month	38.17%	50
About once a week	17.56%	23
More than once a week	16.03%	21

Interpretation:

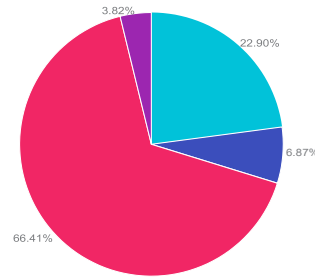
Over 75% of respondents visit the trail more than once per month.

This indicates the value of the trail as a place. People continue to return because it is a positive experience. Moreover, the trail is used throughout the year.

Question 4

How do you typically access the Elephant Swamp Trail?

Answered: 131 Skipped: 0



● By walking or running ● By bicycle ● By car ● Other (Please specify)

Choices	Response percent	Response count
By walking or running	22.90%	30
By bicycle	6.87%	9
By car	66.41%	87
Other (Please specify)	3.82%	5

OTHER:

1. Blank
2. I walk across the street
3. N/A
4. power chair
5. Walk from Old Cedar Campground

Interpretation:

66% of respondents typically access the trail by car, and nearly 23% access the trail by foot.

This supports what has been expressed anecdotally – that parking for trail access can get crowded. Directing trail users to park at Elk Township Recreational Park (through wayfinding at the community level and within the park itself) has the potential to ease the parking demand near Elk Road.

Question 5

Trail Surface Options

Please rank the following trail surface options based on your preferences as a trail user.

Answered: 131 Skipped: 0

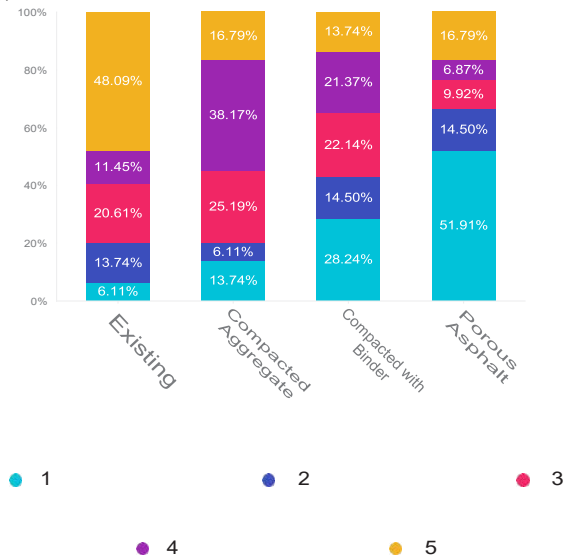


Image choice	1	2	3	4	5	Average rating	Response count
Compacted earth/aggregate (existing)	6.11% (8)	13.74% (18)	20.61% (27)	11.45% (15)	48.09% (63)	3.82	131
Compacted Aggregate	13.74% (18)	6.11% (8)	25.19% (33)	38.17% (50)	16.79% (22)	3.38	131
Compacted Aggregate with Binder	28.24% (37)	14.50% (19)	22.14% (29)	21.37% (28)	13.74% (18)	2.78	131
Porous Asphalt	51.91% (68)	14.50% (19)	9.92% (13)	6.87% (9)	16.79% (22)	2.22	131

Average rating: 3.05

Interpretation:

Aggregate surface seems to be favored over asphalt paved surface.

This is consistent with the earlier expressed values for using the trail to experience nature and for recreation. Although the compacted earth/aggregate surface has the highest preference among the responses, it is difficult to maintain the surface as ADA accessible, as well as being subject to erosion and drainage issues, as evidenced in the large puddles observed at points along the trail.

For the purposes of this study – that is to envision and estimate for long-term trail enhancements so that the Township may seek outside funding – NV5 to proceed with cost estimating for compacted aggregate surface with a binder/stabilizer. This would come in at a higher cost than aggregate surface without a binder, but this may be outweighed by the benefits of ADA accessibility, the ability to crown or pitch the trail where necessary for positive drainage, dust suppression, and weed suppression. Moreover, this type of aggregate mix can use locally quarried gravels, so it would not appear out of place given the natural context of the trail.

Question 6

Access Control Device Options

Please rank the following access control options based on your preferences as a trail user.

Answered: 131 Skipped: 0

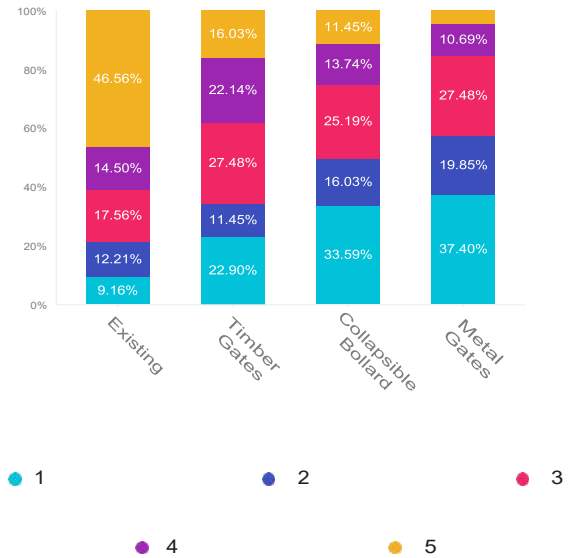






Image choice	1	2	3	4	5	Average rating	Response count
 Existing	9.16% (12)	12.21% (16)	17.56% (23)	14.50% (19)	46.56% (61)	3.77	131
 Timber Gates	22.90% (30)	11.45% (15)	27.48% (36)	22.14% (29)	16.03% (21)	2.97	131
 Collapsible Bollard with Fixed Barrier (Fence, Boulder, etc.)	33.59% (44)	16.03% (21)	25.19% (33)	13.74% (18)	11.45% (15)	2.53	131
 Metal Gates	37.40% (49)	19.85% (26)	27.48% (36)	10.69% (14)	4.58% (6)	2.25	131

Average rating: 2.88

Interpretation:

Existing steel tube utility gate seems to be preferred over alternatives in timber, with fence/bollard elements, or metal with a painted appearance.

Later responses to Question # 9 indicate a preference for wood/timber guardrails and fence materials over metal alternatives. Steel tube utility gates may have an association with agriculture in the area; and steel tube is a widely available, durable material that can be customized for any gate configuration that would work for the trail.

Question 7

Trash Options

As a trail user, how important are each of the following options for dealing with trash? Please rank each option on a scale of 1 (least important) to 5 (most):

Answered: 130 Skipped: 1

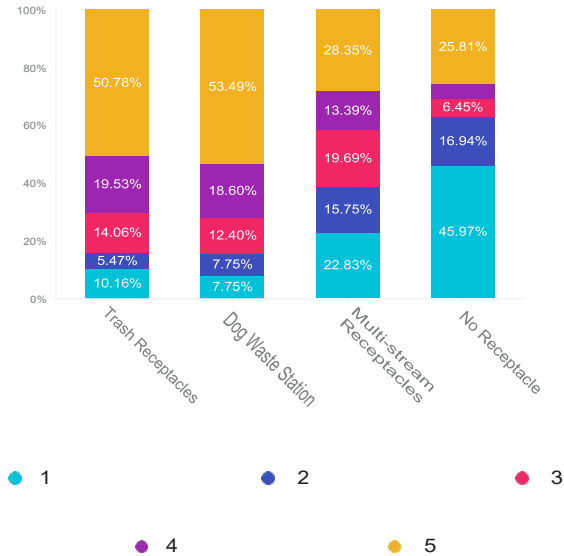






Image choice	1	2	3	4	5	Average rating	Response count
 Trash Receptacles	10.16% (13)	5.47% (7)	14.06% (18)	19.53% (25)	50.78% (65)	3.95	128
 Dog Waste Stations	7.75% (10)	7.75% (10)	12.40% (16)	18.60% (24)	53.49% (69)	4.02	129
 Multi-stream Receptacles	22.83% (29)	15.75% (20)	19.69% (25)	13.39% (17)	28.35% (36)	3.09	127
 No Receptacles (pack it in, pack it out; leave no trace)	45.97% (57)	16.94% (21)	6.45% (8)	4.84% (6)	25.81% (32)	2.48	124

Average rating: 3.39

Interpretation:

Between having trash receptacles and not, it seems that having them available to the trail is preferred.

NV5 will include receptacles in cost estimate both for people and for pets, assuming maintenance is not an issue for the Township/Environmental Commission.

Question 8

Bench Options

Please rank the following bench style options based on your preferences as a trail user:

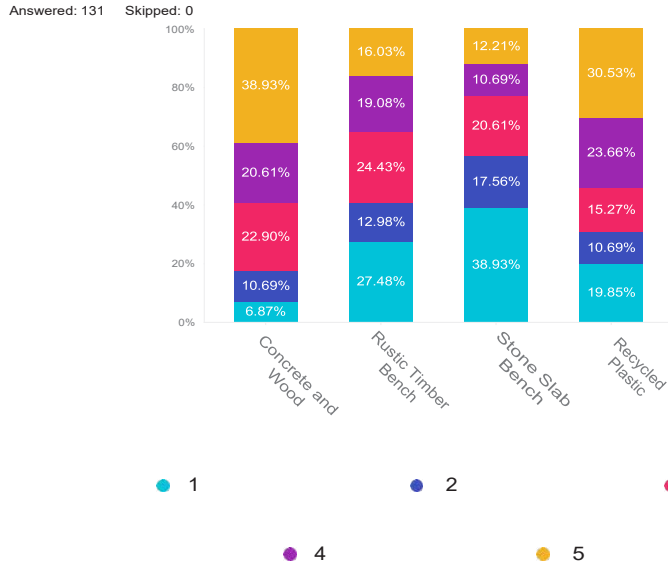


Image choice	1	2	3	4	5	Average rating	Response count
Concrete and Wood Bench (existing)	6.87% (9)	10.69% (14)	22.90% (30)	20.61% (27)	38.93% (51)	3.74	131
Rustic Timber Bench	27.48% (36)	12.98% (17)	24.43% (32)	19.08% (25)	16.03% (21)	2.83	131
Stone Slab Bench	38.93% (51)	17.56% (23)	20.61% (27)	10.69% (14)	12.21% (16)	2.4	131
Recycled Plastic Bench	19.85% (26)	10.69% (14)	15.27% (20)	23.66% (31)	30.53% (40)	3.34	131

Average rating: 3.08

Interpretation:

Concrete and wood benches or recycled plastic benches seem to be preferred over rustic timber benches and stone slab bench alternatives.

Both the preferred forms of bench are widely available; recycled plastic slat benches were observed elsewhere in Elk Township Recreational Park, so they may be a Township standard.

Question 9

Guardrail / Fence Options

Guardrail is typically installed in areas with a sharp change in elevation greater than 30 inches. Fence is typically installed where access control is necessary. Along Elephant Swamp Trail, it is anticipated that use of guardrail or fence will be limited. Please rank each option on a scale of 1 (least preferable) to 5 (most):

Answered: 131 Skipped: 0

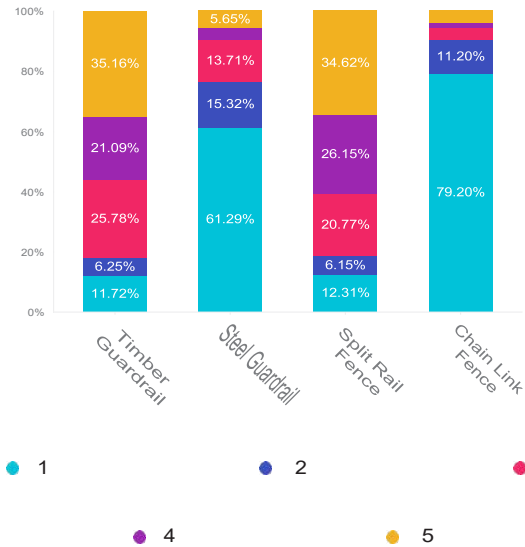


Image choice	1	2	3	4	5	Average rating	Response count
Timber Guardrail	11.72% (15)	6.25% (8)	25.78% (33)	21.09% (27)	35.16% (45)	3.62	128
Steel Guardrail	61.29% (76)	15.32% (19)	13.71% (17)	4.03% (5)	5.65% (7)	1.77	124
Split Rail Fence	12.31% (16)	6.15% (8)	20.77% (27)	26.15% (34)	34.62% (45)	3.65	130
Chain Link Fence	79.20% (99)	11.20% (14)	4.00% (5)	1.60% (2)	4.00% (5)	1.4	125

Average rating: 2.61

Interpretation:

Wood/timber for any fence and guardrail needs seems to be preferred over metal alternatives (steel guardrail, chain link fence).

NV5 can account for these materials in the cost estimate.

Question 10

Mile Marker Options

Mile markers are being considered along the Elephant Swamp Trail. Please rank the following potential options based on your preferences as a trail user:

Answered: 131 Skipped: 0

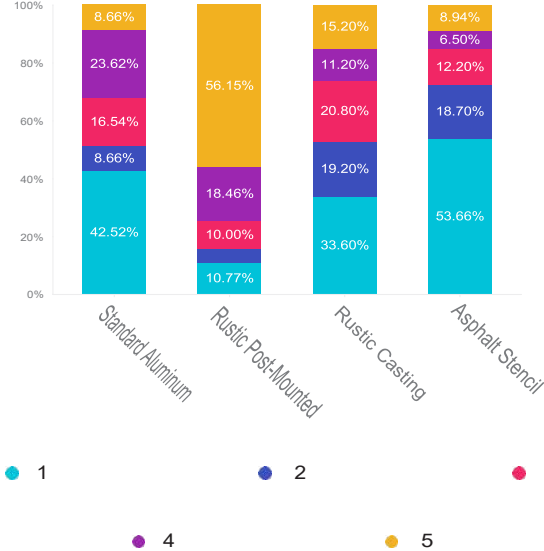






Image choice	1	2	3	4	5	Average rating	Response count
 Standard Aluminum Placard	42.52% (54)	8.66% (11)	16.54% (21)	23.62% (30)	8.66% (11)	2.47	127
 Rustic Post-Mounted	10.77% (14)	4.62% (6)	10.00% (13)	18.46% (24)	56.15% (73)	4.05	130
 Rustic Casting with Plaque	33.60% (42)	19.20% (24)	20.80% (26)	11.20% (14)	15.20% (19)	2.55	125
 Asphalt Stencil or Inlay	53.66% (66)	18.70% (23)	12.20% (15)	6.50% (8)	8.94% (11)	1.98	123

Average rating: 2.76

Interpretation:

Mile markers mounted on timber posts seem to be preferred over aluminum placards, castings, or stencils.

NV5 can account for these in the cost estimate. Mile markers have a safety benefit, in the event that someone is injured on trail, the markers can help them communicate their location to responders.

Open Ended Responses

Question 11

If you have any other recommendations for improving the Elephant Swamp Trail, please indicate below.

Answered: 38 Skipped: 93

1. Don't need more benches or mile markers just a waste of money needs to have more police presence to stop the illegal parking and the four wheelers and the littering along the trail.
2. Don't change it or spend any additional money there.
3. Educational/informational signs and postings for describing geographical features, soils, geology, water features, current and past land use, flora, fauna, tree and plant identifiers. Keep trail surface natural, perhaps aggregate with improved grading, drainage. No motor vehicle use! Recommend bicycle use be restricted from pedestrian use. Dedicate center of trail for bike use or divide trail for bike/ pedestrian use in some way. Upgraded, enlarged parking, lighted parking. Improved safety/security at parking area, police patrol of parking area.

4. Elephant Swamp is just fine the way it is. No changes necessary.
5. Emergency call buttons.
6. Encourage parking in the Elk Twp park on the north end of the park. We live in Elk Rd very close to the parking lot and it's scary sometimes between the traffic, people circling for spots, pedestrians crossing the road, etc.
7. Handicap accessible
8. I love the trail and have run hundreds of miles on it. Please leave it as natural as possible, that's the appeal of the trail. Paving it in any way or putting fencing and metal signs would be a travesty.
9. I think it is functional and nice the way it is. I also would not like my taxes to increase based on improvements.
10. I would recommend leaving it alone. There are so many paved and developed trails in the area but very few left more natural.
11. I would run there all the time if the surface didn't cause me foot pain!!!
12. It might be worthwhile to consider corporate sponsorship for some trail enhancements.
13. Leave as is. People should be parking at Whig Lane where there is plenty of parking. We shouldn't be changing for non-locals what locals have been enjoying for years.
14. leave it as natural as possible
15. Let's keep it a rural gem. Clean up the trees - widen it a bit. Put signs up sending overflow to muni parking.
16. Natural is best
17. Need more parking on 538
18. No extra parking structure. Leave the trail as natural as possible without interrupting the layout and land.
19. No major overhauls. Signs and trash receptacles. More parking.
20. People will always leave trash, regardless of whether it's take it in, take it out. With the receptacles available, it will hopefully help alleviate the litter, and if there is litter, people will be more inclined to pick it up and put in receptacle, vs picking up someone else's trash and having to take it home. I can't wait to see what comes of the trail, we've enjoyed it thoroughly over the years.
21. Please don't raise taxes for this!
22. Please keep the extra parking, port o pot and bike repair spot back at the Elk Twp. soccer fields
23. Please leave the trail as alone as we are taking away from our wildlife and it's supposed to be a nature trail

24. Police presence has to be there during the day when there are people on the trail and the trash cans have to be emptied once a week and a sign telling the overflow of traffic to park at the rev park not on Elk Road or Railroad Ave.
25. Put Elephant Swamp Signs out on Whig Lane across from Aura School. Mile markers are misleading and most of the people using it now have devices to track miles.
26. Really hoping it gets paved. I would definitely run there more often.
27. Require horse riders to clean up after their animals the same as with dog owners. Enforce the law regarding not allowing motorized vehicles on the trail. Enforce the law requiring bike riders to have a horn or bell on their bike.
28. Restroom options Lightning options - even if just for couple miles at beginning of trails, sensor options on /off, etc. Safety options - couple of safety security mirrors in the area to be able to watch for danger. Keep the trail looking as original as possible. **Bike Racks - Hold bicycles when people stop Couple Group meeting up area tables with roof covering areas and concrete underneath. / Restroom Perhaps Showing Map of area on it.
29. Solar lighting for early morning & dusk
30. Sweep the gum tree balls off the trail; better surface on trail north of Monroeville at county line
31. Sweet gum balls from the trees are a problem. A very nice trail.
32. Talk with Elmer to see if there is anything they can do on their end to improve access.
33. Thanks for all your efforts to maintain and improve the trail. I've been very happy with my experience with the trail, other than some sections needing to be graded to prevent puddling of water.
34. The owners of the horses should pick up their poop. An area where children can play like obstacles along the route.
35. The trail has been used by residents for years. We enjoy the quiet, rustic and urban approach to this historic path. Outsides and visitors should enjoy respect and cherish the site as is.
36. To stop people riding their dirt bikes and 4 wheelers (quads) on the trails. Signs are posted but not followed. Can police monitor it more often? Also, on the trail along Railroad Ave.
37. We don't want asphalt. The bike trail that runs through Glassboro and Williamstown is already in the area. The dirt trail is a nice break for the legs. Especially for the knees and ankles. Thank you.
38. We love the trail.



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