

City of Manassas Park Active Transportation Plan



National Capital Region
Transportation Planning Board

Transportation & Land Use Connections, 2023

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Introduction

The City of Manassas Park is an attractive and growing place to live and work. It balances its attractive suburban neighborhoods with easy access to nearby commercial areas and the wider region via I-66 and VRE service. The City finds itself at a point in time when sustainable, equitable active transportation modes such as walking and biking are increasingly recognized as vital to the City's quality of life. Creating and enhancing pedestrian/bicycle connections between isolated neighborhoods and local destinations such as shopping, schools and transit is a straightforward way to maintain the attractiveness of Manassas Park as a place to live and work.

The Active Transportation Plan effort assessed the existing pedestrian and bicycle networks within Manassas Park and identified gaps to fill that will produce the greatest improvements in overall connectivity. The plan also ensures that the City's future active transportation networks and mesh with neighboring networks planned for the City of Manassas, Prince William County and Fairfax County, in order to create the highest overall level of connectivity region-wide.

36 recommended improvements are detailed in this report, each representing an opportunity to enhance the active transportation network for the City and create a more walkable, bikeable community for its residents to live and work.

Methodology

Stakeholder Involvement Process Methodology

The planning process for the Active Transportation Plan included an intensive stakeholder interview process, including outreach to City departments, neighboring jurisdictions pedestrian and bicycle advocates as well as regional and state planning bodies. These partners were interviewed by the study team in groupings of like entities, as shown in Table 1. The concerns and recommendations from advocates and planning partners were not only recorded, but in large part incorporated into the gaps analysis that formed the basis for the recommendations of the plan.

TABLE 1: ALL PARTNER ENTITIES INVITED TO PARTICIPATE IN THE STAKEHOLDER INPUT PROCESS

Grouping	Agency
MP: Exec	MP City Manager
MP: Planning	MP Public Works
	MP Parks & Rec
	MP City Engineer
	MP Planning
	MP Econ. Dev.
Police & Safety	MP Police Dept.
	MP Public Health
	Institute for Public Health Innovation
	MP Public Schools
Neighboring Jurisdictions	City of Manassas
	Prince William County
	Fairfax County
	VDOT
Active Transportation Advocates	Active Prince William
	Greater Prince William Trails Coalition
	Prince William Trails & Streams Coalition
	Fairfax Trails, Sidewalks, Bikeways Comm.
	Prince William Trails and Blueways Council
	Washington Area Bicyclist Assoc
	Mid-Atlantic Off Road Enthusiast (MORE)
	Institute for Public Health Innovation
Regional, State, Federal Advocates	NVRC
	DCR
	NPS
	NOVA Parks
	Fairfax County Parks Authority
	Washington Area Bicyclist Assoc
	Mid-Atlantic Off Road Enthusiast (MORE)
	MWCOG
	NVTA
	Institute for Public Health Innovation

Gaps Analysis

Needed connections were identified through the stakeholder outreach process, as well as from prior plans and field reviews of conditions throughout Manassas Park. Those connections are encapsulated in Figure 1. The recommendations in this plan reflect a comparison of those desired connections to the existing infrastructure, and the identification of gaps where the network does not address the desire lines.

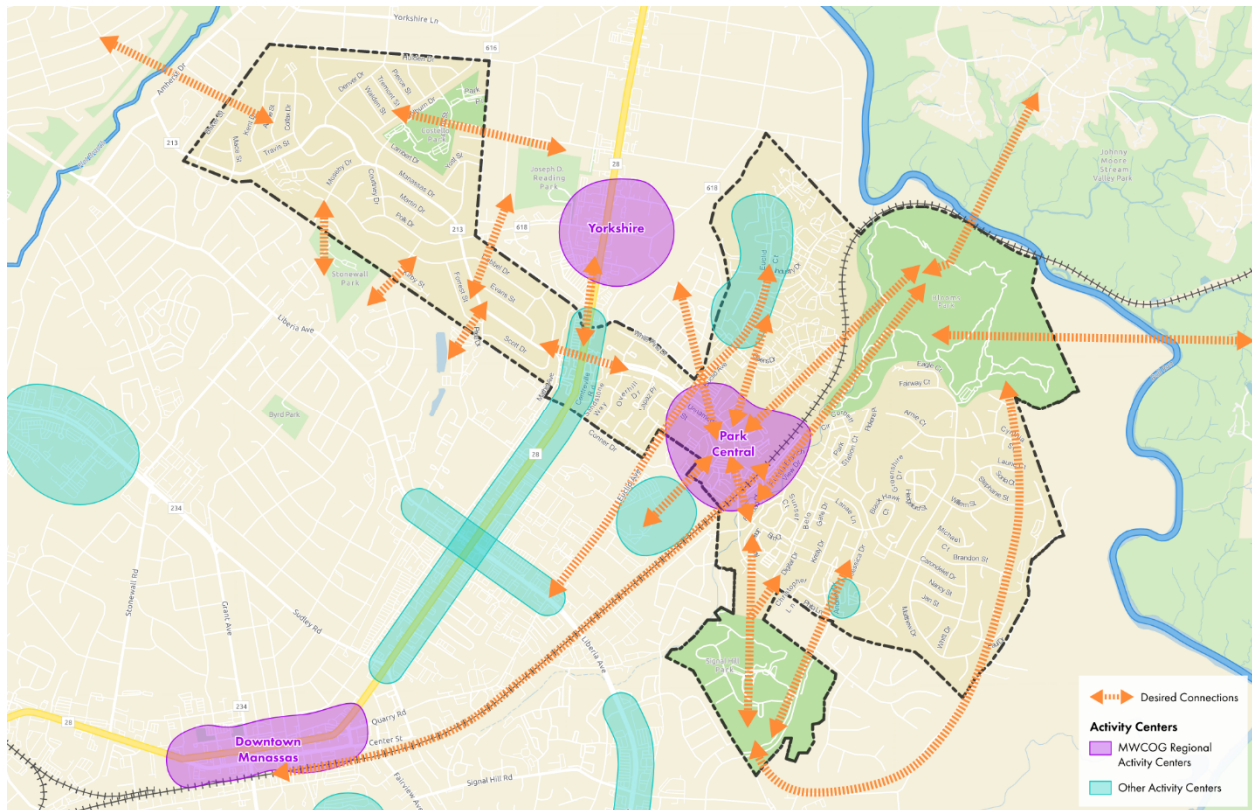


FIGURE 1: DESIRED ACTIVE TRANSPORTATION CONNECTIONS IN MANASSAS PARK AND SURROUNDING AREAS

Prioritization Scoring Methodology

The study team prepared a set of criteria to provide guidance and help prioritize recommendations to improve bicycling and pedestrian access in the City. Three main categories were identified as significant in the consideration of improvements and recommendations for the bicycle and pedestrian network: Access and Connectivity, Safety and Comfort, and Equity. The criteria for ranking pedestrian and bicycle improvements are detailed in Table 3 and

Table 4, respectively. The recommendations in the Bicycle Category and Further Study Recommendation 3 were scored using the bicycle criteria. All other recommendations were scored using the pedestrian criteria.

ACCESS AND CONNECTIVITY (7 PTS)

Identification of top priorities for improving pedestrian and bicycle access to meet the City's goals is imperative to the success of the Plan. Site-specific access concerns and/or destinations where walking and biking should be considered as a viable means of transportation may include access to schools, parks, transit, or food resources (grocery stores/farmer's market). Outside of improved access to those specific destinations, improvements will receive points if they create connections that result in a more complete pedestrian and/or bicycle network for the City.

SAFETY AND COMFORT (1.5 PTS)

Improvements at locations where known safety hazards can be mitigated should receive points. Additionally, bicycle and pedestrian improvements that are along wide, high speed, high traffic volume streets receive additional points over residential and local collector streets with lower speeds and volume.

EQUITY (1.5 PTS)

In order to ensure that improvements to the network fairly meet the needs of all community members, particularly traditionally underserved populations, the following may be considered in prioritizing improvements.

- Street is in a Lower Auto Ownership Census Tract
- Street is in a Lower Income Census Tract
- Street is in a census tract with a high proportion of residents over 65 years of age.

The City of Manassas Park contains three census tracts, as shown in Table 2. Based on the criteria above, recommendations in census tract 9202.01 received one point based on its lower median household income, and those in tract 9201 received 1.5 points based on its relatively lower median household income and its higher population over 65. Recommendations in census tract 9202.02, based on that area's significantly higher median household income, received no points.

TABLE 2: COMPARISON OF MANASSAS PARK CENSUS TRACTS

Census Tract	Auto Ownership	Median HH Income	Population over 65
9201	98.1%	\$77,987	12%
9202.01	100%	\$68,073	3%

9202.02	97.2%	\$115,714	7%
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TABLE 3: PEDESTRIAN IMPROVEMENT CRITERIA POINTS ALLOCATION DETAILS

Criteria	Values
Access and Connectivity	(7.0 Max)
Access to Schools	(1.5 max)
Improvement is within the ½-mile walkshed (the area within a ½-mile walking distance) of one or more schools (Manassas Park High School, Manassas Park Middle School, Manassas Park Elementary School, Cougar Elementary School, Manassas Christian Academy, or Merit School or Manassas Park).	0.5
Improvement brings additional residential areas within the ½-mile walkshed of one or more schools (Manassas Park High School, Manassas Park Middle School, Manassas Park Elementary School, Cougar Elementary School, Manassas Christian Academy, or Merit School or Manassas Park).	1
Access to Parks	(1.0 Max)
Improvement creates a new pedestrian connection (within ½ mile) between a residential area and one or more parks.	1
Improvement upgrades an existing pedestrian connection (within ½ mile) between a residential area and one or more parks.	0.5
Access to Transit	(1.5 Max)
Improvement is within the 1-mile walkshed of the Manassas Park VRE Station.	0.5
Improvement would expand the 1-mile walkshed of the Manassas Park VRE Station.	0.5
Improvement is on a street with bus service Or within the service zone of the Omni-Ride microtransit service.	0.5
Access to Food	(1.0 Max)
Improvement would improve connections (within ½ mile) between residential areas and existing grocery stores.	1
Connectivity	(2.0 Max)
Improvement is located on an arterial or collector street, or paralleling an arterial or collector street to create an alternative pathway.	1
Improvement is located on a street section where there is currently no sidewalk on either side of the street.	1
Safety and Comfort	(1.5 Max)
Improvement mitigates a known safety hazard (e.g. narrow or crumbling sidewalk, poorly marked crosswalk, overly-long crossing distance, or lack of sufficient curb cuts).	1
Improvement is located on a roadway with a speed limit of 35 mph or higher.	0.5
Equity	(1.5 Max)
Improvement is in Census Tract 9202.01	1
Improvement is in Census Tract 9201	1.5
Total	10

TABLE 4: BICYCLE IMPROVEMENT CRITERIA POINTS ALLOCATION DETAILS

Criteria	Values
Access and Connectivity	(7.0 Max)
Access to Schools	(1.5 max)
Improvement creates a new bicycle connection between a residential area and one or more schools (within 1 mile) that previously did not exist (Manassas Park High School, Manassas Park Middle School, Manassas Park Elementary School & Cougar Elementary School)..	1.5
Access to Parks	(1.0 Max)
Improvement creates a new bicycle connection between a residential area and one or more parks (within 1 mile).	1
Access to Transit	(1.5 Max)
Improvement creates a new bicycle connection between a residential or high-employment area and the Manassas Park VRE station (within 2 miles) .	1
Improvement upgrades an existing bicycle connection between a residential or high-employment area and the Manassas Park VRE station (within 2 miles) by replacing the existing bicycle infrastructure with higher-order infrastructure (see above).	0.5
Improvement is on a street with bus service or within the service zone of the Omni-Ride microtransit service.	0.5
Access to Employment	(1.0 Max)
Improvement creates a new bicycle connection between a residential area and a high-employment character area (Park Central or Euclid Ave industrial corridor).	1
Improvement upgrades an existing bicycle connection between a residential area and a high-employment character area (Park Central or Euclid Ave industrial corridor).	0.5
Access to Food	(1.0 Max)
Improvement would improve connections (within 1 mile) between residential areas and existing grocery store.	1
Connectivity	(1.0 Max)
Improvement would bridge an existing gap in the City's bicycle network.	1
Improvement would connect to an existing bicycle facility in a neighboring jurisdiction.	0.5
Safety and Comfort	(1.5 Max)
Improvement is parallel to an arterial or collector street to create an alternative pathway.	1.5
Improvement is located within the curb-to-curb section of an arterial or collector street	1
Equity	(1.5 Max)
Improvement is in Census Tract 9202.01	1
Improvement is in Census Tract 9201	1.5
Total	10

Recommendations

Categories of Recommendations

The 36 recommendations in the Active Transportation Plan are sorted into five categories:

1. **Pedestrian** recommendations are those which are focused on ADA-compliant sidewalk and path recommendations located within street rights-of-way. The category does not include shared-use paths.
2. **Bicycle** recommendations include bicycle lanes, signed bicycle routes, and shared-use paths (Minimum 10'-wide paved paths that can safely accommodate pedestrian and bicycle traffic simultaneously).
3. **Trails** recommendations can be paved or un-paved, but are largely those that are not adjacent to roadways. The category does not include shared-use paths or sidewalks.
4. **Safety** recommendations are not specifically pedestrian or bicycle facilities, but significantly improve pedestrian and bicycle safety by reducing traffic speeds and improving intersection functionality.
5. **Further Study** recommendations are a recognition that some connections require more detailed analysis than is possible within the timeframe and level of effort of this planning process, and therefore individual planning efforts for those acute problems should be undertaken before arriving at a preferred solution.

In some cases, the same corridor has been assigned recommendations in more than one category. This represents the reality that the City may need options in certain important locations to better respond to future developments and be able to move forward with one of two or more options as the *recommended* solution. Examples include the UOSA right-of-way and the VRE/Dominion Power right-of-way, each of which have both bicycle and trail recommendations.

Pedestrian Category Recommendations

Recommendation P-1: Pedestrian Recommendations from 2022 HSIP Application

The City submitted an application for funding under the Highway Safety Improvement Program (HSIP), with improvements to intersections at intersections from Baker Street to Zachary Court. The individual improvements included in that application are included within this recommendation.

TABLE 5: RECOMMENDATION P-1 DETAILS

Location	Manassas Drive from Baker Street to Zachary Court			
Description	51 new pedestrian crossings, 5 restripes to existing pedestrian crossings, 9 upgrades to high visibility crossings, 89 updated curb ramps, 1 LPI install, 2 cobra light installs, 9 unsignalized intersection improvements			
References (prior studies/plans)	HSIP Application 1 - Pedestrian and Unsignalized Intersection Improvements (October 2022)			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	3	1.5	1.5	6
Cost Estimate:	\$787,316 (from HSIP Application)			

Recommendation P-2: Close Sidewalk Gap on South side of Manassas Drive from Euclid Avenue to Bank Street

Project would result in an uninterrupted sidewalk on the South side of Manassas Drive from City Center to the western edge of Manassas Park. Sidewalk connectivity is critical in the vicinity of City Center, given that areas importance in the economic development of the City.

TABLE 6: RECOMMENDATION P-2 DETAILS

Location	South side of Manassas Drive from Euclid Avenue to Bank Street			
Description	Close sidewalk gap			
References (prior studies/plans)	Park Central Complete Streets Findings and Recommendations (September 20th, 2022)			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	3	1.5	1.5	6
Cost Estimate:	\$200,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation P-3: Close Sidewalk Gap on East side of Manassas Drive from Railroad Drive to City Center

Currently the sidewalk on the east side of Manassas Drive ends at the Norfolk Southern RR tracks. There is no sidewalk crossing of the tracks, and the stairs to the VRE Station parking lot are connected to nothing. This recommendation would result in an uninterrupted sidewalk on the east side of Manassas Drive throughout its entire length in Manassas Park.

TABLE 7: RECOMMENDATION P-3 DETAILS

Location	East side of Manassas Drive from Railroad Drive to City Center			
Description	Close sidewalk gap, including safe crossing of RR tracks			
References (prior studies/plans)	Active Prince William's Recommendations for Manassas Park Trails Connectivity (April 2022)			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	4	1.5	0	5.5
Cost Estimate:	\$330,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation P-4: "Park to Park" Wayfinding Network

This recommendation envisions signage marking the safest pedestrian/bicycle connections between Costello Park, Signal Hill Park, Blooms Park, and all City of Manassas Park public and private schools. The network map would also need to be available on the City's website and downloadable to mobile devices.

TABLE 8: RECOMMENDATION P-4 DETAILS

Location	Costello Park, Blooms Park, Signal Hill Park, and routes between			
Description	"Park to Park" wayfinding network to lay out safest bicycle and pedestrian routes between Manassas Park parks.			
References (prior studies/plans)	N/A			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	3	0.5	1.5	5
Cost Estimate:	\$75,000 (Planning, Signage, Mapping and Mobile Download)			

Recommendation P-5: Pedestrian Connection from Osbourn Park High School to Conner Drive

While Osbourn Park High School lies outside of the City, many students from that school walk to the Park Central area, a pattern that will increase as Park Central adds more retail uses. A direct pedestrian path from the school to Park Central across Conner Drive will keep these students from walking along the railroad ROW or Manassas Drive.

TABLE 9: RECOMMENDATION P-5 DETAILS

Location	Osborn Park High School			
Description	Provide direct pedestrian connection from Osborn Park High School to Conner Drive			
References (prior studies/plans)	N/A			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	4	0	1	5
Cost Estimate:	\$170,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation P-6: Close Sidewalk Gap on West side of Signal View Drive from Signal Hill Park to Manassas Drive

Signal Hill Park is a primary recreational facility for the City. The high speeds on Signal View Drive make crossings at the park entrance less safe. A sidewalk on the west side of Signal View Drive would improve access to the park, with fewer street crossings required.

TABLE 10: RECOMMENDATION P-6 DETAILS

Location	West side of Signal View Dr from Signal Hill Park to Manassas Drive			
Description	Close sidewalk gap			
References (prior studies/plans)	Park Central Complete Streets Findings and Recommendations (September 20th, 2022)			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	3.5	1.5	0	5
Cost Estimate:	\$690,000 (Construction, CEI, Contingency, PE & ROW)			

Manassas Park Pedestrian Facilities Recommendations

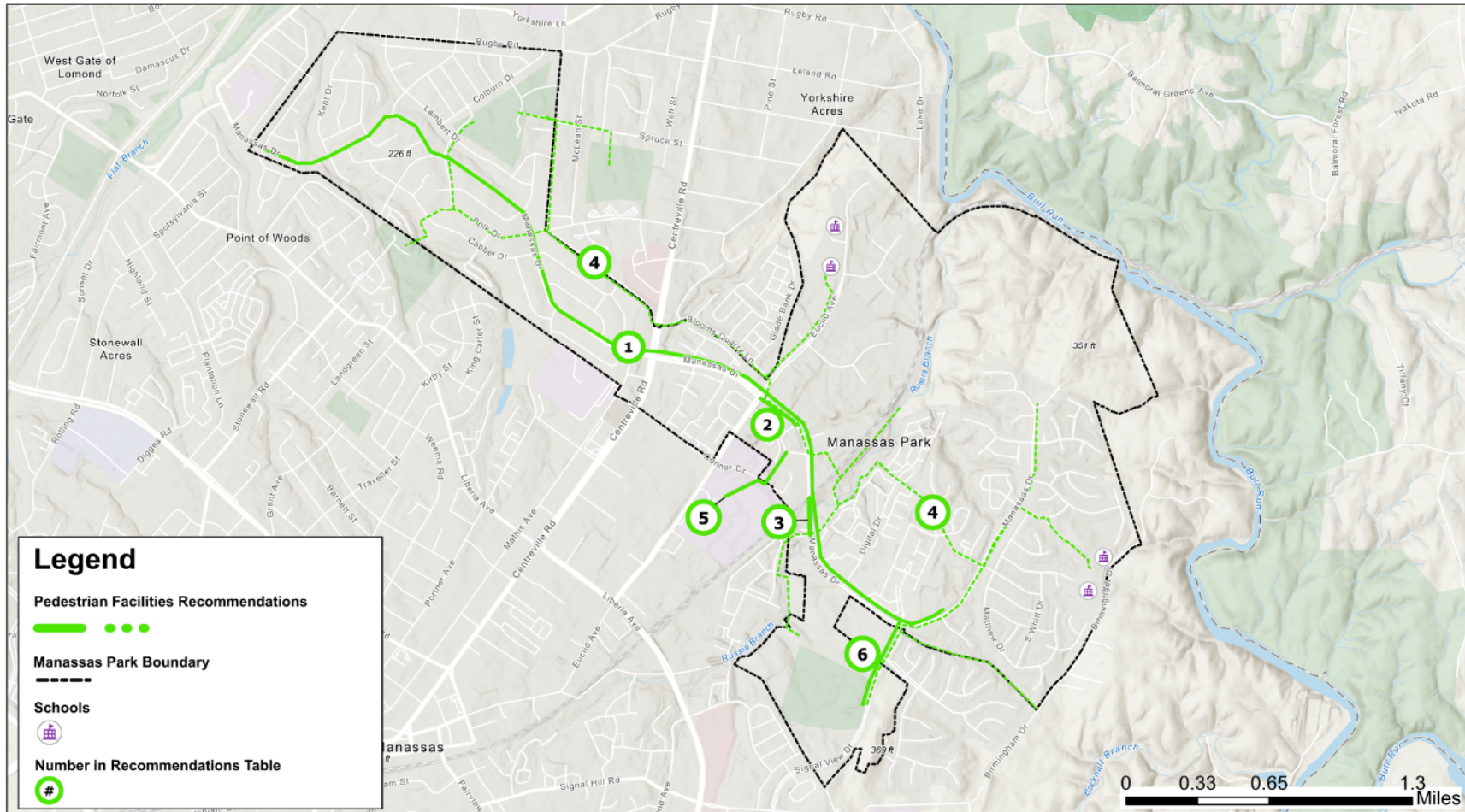


FIGURE 2: PEDESTRIAN RECOMMENDATIONS FROM THE ACTIVE TRANSPORTATION PLAN

Bicycle Category Recommendations

Recommendation B-1: Shared-Use Path on Euclid Avenue from Manassas Drive to Manassas Park High School

Euclid Avenue is a key bicycle corridor within Manassas Park. The portion of the corridor adjacent to the high school sports fields has an off-street path. This recommendation extends that path south to Manassas Drive, providing better access to both schools.

TABLE 11: RECOMMENDATION B-1 DETAILS

Location	Euclid Avenue from Manassas Drive to Manassas Park High School			
Description	Widen sidewalk on north side to 10' shared-use path			
References (prior studies/plans)	N/A			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	4	1.5	1	6.5
Cost Estimate:	\$480,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation B-2: Bicycle Lanes on Mathis Avenue

This recommendation would tie into planned bicycle lanes on City of Manassas portion of Mathis Avenue, creating a bicycle connection between the two cities. The bicycle lanes can be continued to Old Centreville Road if/when Mathis Avenue is extended.

TABLE 12: RECOMMENDATION B-2 DETAILS

Location	Mathis Ave from City line to Manassas Drive			
Description	Bicycle lanes			
References (prior studies/plans)	<ul style="list-style-type: none"> Active Prince William's Recommendations for Manassas Park Trails Connectivity (April 2022) Manassas 2040 - Chapter 6, Mobility & City of Manassas TMP Report (February 24, 2020; September 2020) 			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	4	1	1.5	6.5
Cost Estimate:	\$270,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation B-3: Shared-Use Path on Manassas Drive between Railroad Drive and City Center

Addition of a shared-use path in this critical corridor would provide better access to the Park Central area and the VRE station, and improve connections between Park Central and Signal Hill Park.

TABLE 13: RECOMMENDATION B-3 DETAILS

Location	South side of Manassas Drive between Railroad Drive and Park Central			
Description	Install shared use path			
References (prior studies/plans)	Active Prince William's Recommendations for Manassas Park Trails Connectivity (April 2022)			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	6	1.5	0	7.5
Cost Estimate:	\$510,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation B-4: Shared-Use Path on Manassas Drive between Railroad Drive and Signal View Drive

Addition of a shared-use path in this critical corridor would provide better access to the Park Central area and the VRE station, and improve connections between Park Central and the neighborhoods in the eastern part of the City.

TABLE 14: RECOMMENDATION B-4 DETAILS

Location	South side of Manassas Drive between Railroad Drive and Signal View			
Description	Install shared use path			
References (prior studies/plans)	Active Prince William's Recommendations for Manassas Park Trails Connectivity (April 2022)			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	6.5	1.5	0	8
Cost Estimate:	\$1,130,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation B-5: Shared-Use Path between Stonewall Park and Moseby Court

Creation of a short shared-use path between Moseby Court and Stonewall Park would provide safer access to an adjacent park facility for residents of the neighborhoods west of Manassas

Drive. Portions of this project extend beyond the City limits and would require coordination with the City of Manassas.

TABLE 15: RECOMMENDATION B-5 DETAILS

Location	Between Stonewall Park and Moseby Court			
Description	Install shared use path			
References (prior studies/plans)	Active Prince William's Recommendations for Manassas Park Trails Connectivity (April 2022)			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	1.5	0	1.5	3
Cost Estimate:	\$50,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation B-6: Kirby Street Shared-Use Path

Creation of a short shared-use path between the portions of Kirby Street in Manassas Park and Manassas would provide safer access to an adjacent park facility for residents of the neighborhoods west of Manassas Drive. Portions of this project extend beyond the City limits and would require coordination with the City of Manassas.

TABLE 16: RECOMMENDATION B-6 DETAILS

Location	Between Manassas Park and Manassas sections of Kirby Street			
Description	Install shared use path			
References (prior studies/plans)	Active Prince William's Recommendations for Manassas Park Trails Connectivity (April 2022)			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	1.5	0	1.5	3
Cost Estimate:	\$100,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation B-7: Shared-Use Path between VRE parking lot and Blooms Park

This project entails a paved shared-use path paralleling the Norfolk-Southern/VRE tracks east from the Manassas Park Station lot to connect to Blooms Park and a potential crossing of Bull Run Creek at the Orange and Alexandria Bridge Piers. The path would likely be built in the Dominion Power ROW that parallels the railroad tracks.

TABLE 17: RECOMMENDATION B-7 DETAILS

Location	Between VRE parking lot and Blooms Park Trail			
Description	Install shared use path			
References (prior studies/plans)	Active Prince William's Recommendations for Manassas Park Trails Connectivity (April 2022)			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	3	0	0	3
Cost Estimate:	\$2,460,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation B-8: Install Shared-Use Path in UOSA Easement Between Price Drive and Manassas Park Public Works

The right-of-way of the Upper Occoquan Service Authority (UOSA) in the western part of the City parallels Cabbell Drive and Forest Street for over three quarters of a mile. It currently appears as a mowed grass strip through wooded terrain. In spite of the no trespassing signs posted, anecdotal evidence indicates that it is frequently used as a pedestrian route. This project entails entering an agreement with UOSA to create a paved shared-use path along the length of the ROW from Moseby Drive to Price Drive and open the corridor to approved pedestrian use. Spur connections to Kirby St, and Stonewall Park/Stonewall Road would be included. Some fencing and signage may be required as part of final design to secure UOSA assets along the corridor.

TABLE 18: RECOMMENDATION B-8 DETAILS

Location	UOSA easement between Moseby Drive and Price Drive			
Description	Install shared use path			
References (prior studies/plans)	Active Prince William's Recommendations for Manassas Park Trails Connectivity (April 2022)			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	5	1.5	1.5	8
Cost Estimate:	\$1,830,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation B-9: Rails-With-Trails Project, Manassas Park to Manassas

This recommendation envisions a Rails-with-Trails project paralleling the Norfolk Southern/VRE tracks between the Manassas Park and Manassas VRE stations, providing the best possible bicycle and pedestrian connection between the two downtown areas. The facility would be a

paved shared-use path. Portions of this project extend beyond the City limits and would require coordination with Prince William County and the City of Manassas.

TABLE 19: RECOMMENDATION B-9 DETAILS

Location	North side of NS railroad between Manassas Park VRE and Manassas VRE			
Description	Install shared use path			
References (prior studies/plans)	Active Prince William's Recommendations for Manassas Park Trails Connectivity (April 2022)			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	4	1.5	1	6.5
Cost Estimate:	\$3,110,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation B-10: Road Diet with Bicycle Lanes on Manassas Drive

The travel lanes of Manassas Drive in the eastern portion of the City are wide and encourage speeding. This recommendation envisions narrowing the lanes throughout the portion of Manassas Drive east of Railroad Drive, enabling the addition of bicycle lanes in both directions. Additional traffic calming features could be included in the design. This recommendation is included in MWCOC's National Capital Trail Network document.

TABLE 20: RECOMMENDATION B-10 DETAILS

Location	Manassas Drive between Railroad Drive and Blooms Park			
Description	Add protected bicycle lanes. Implement road diet.			
References (prior studies/plans)	<ul style="list-style-type: none"> MWCOG National Capital Trail Network Active Prince William's Recommendations for Manassas Park Trails Connectivity (April 2022) 			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	6.5	1	0	7.5
Cost Estimate:	\$2,730,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation B-11: Shared-Use Path on Old Centreville Road/Blooms Quarry Road

An east-west bicycle connection is necessary to formulate a real bicycle network for Manassas Park, and vehicular volume on Manassas Drive is probably too high for it to serve in this capacity. A shared-use path along Blooms Quarry Road and Old Centreville Road is the best option to provide such a connection. The intersection of Blooms Quarry Road and VA 28 would need to

be reconfigured to accommodate bicycle and pedestrian crossings. A shared-use path for Old Centreville Road is called for in Prince William County's Mobility Plan, raising the prospects of a jointly-coordinated project.

TABLE 21: RECOMMENDATION B-11 DETAILS

Location	Old Centreville Rd/Blooms Quarry Rd from Rugby Rd to Euclid Ave			
Description	Install shared use path			
References (prior studies/plans)	Prince William County Mobility Plan (December 2022)			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	6.5	1.5	1.5	9.5
Cost Estimate:	\$3,140,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation B-12: Network of Signed Bicycle Routes with Shared Lane Markings

The envisioned network of shared-use paths and bicycle lanes do not connect all areas, and a supplementary network of signed bicycle routes with shared lane markings is necessary.

TABLE 22: RECOMMENDATION B-12 DETAILS

Location	Multiple Streets			
Description	Establish a network of signed bicycle routes w/ shared lane markings.			
References (prior studies/plans)	N/A			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	6	1	1.5	8.5
Cost Estimate:	\$115,000 (Signage & Pavement Markings)			



Manassas Park Bicycle Facilities Recommendations

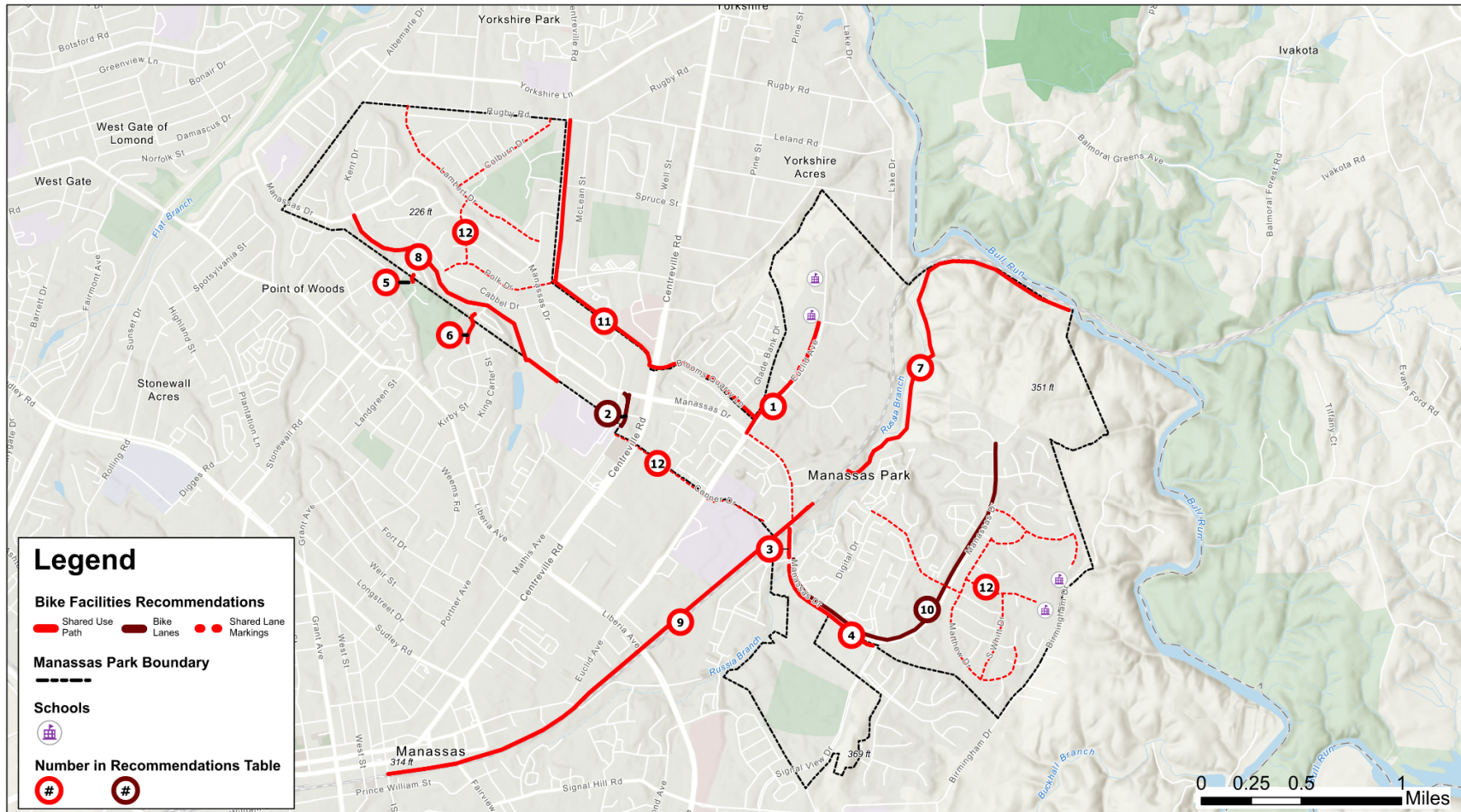


FIGURE 3: BICYCLE RECOMMENDATIONS FROM THE ACTIVE TRANSPORTATION PLAN

Trails Category Recommendations

Recommendation T-1: Extend Russia Branch Trail to Manassas Drive

The Russia Branch Trail is a paved path with a width of six-feet, connecting Signal Hill Park to Dahlgren Ridge Road. The intention of this project is to extend the paved path to the intersection of Manassas Drive and Railroad Drive, making use of an existing gravel road through the wooded area south of that intersection.

TABLE 23: RECOMMENDATION T-1 DETAILS

Location	Russia Branch Trail			
Description	Extend trail to Manassas Drive			
References (prior studies/plans)	Active Prince William's Recommendations for Manassas Park Trails Connectivity (April 2022)			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	2.5	0	0	2.5
Cost Estimate:	\$150,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation T-2: Trail Crossing of Bull Run

This project calls for an un-paved path extending from the eastern-most portion of Blooms Park in a southeasterly direction, with a pedestrian bridge over Bull Run in the vicinity of the existing power lines. This location is also where the access Trail from the Yates Ford trailhead intersects with the Bull Run-Occoquan Trail, a roughly 18-mile trail managed by Nova Parks that is a primary regional recreational facility. The Fairfax County Master Bicycle Plan calls for a stream crossing at that location, with the access trail becoming a shared use path. A spur of this path would extend to the southeast to connect to Birmingham Drive. Portions of this project extend beyond the City limits and would require coordination with Prince William County and Fairfax County.

TABLE 24: RECOMMENDATION T-2 DETAILS

Location	Blooms Park			
Description	Install trail crossing of Bull Run stream to Hemlock Overlook Regional Park/Bull Run Occoquan Trail/Yates Ford Road			
References (prior studies/plans)	<ul style="list-style-type: none"> • MWCOG National Capital Trail Network • Fairfax County Bicycle/Trailway Connections Analysis • Capital Trails Coalition Capital Trails Network 			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	1	0	0	1
Cost Estimate:	\$530,000 (per HSIP application)			

Recommendation T-3: Pave Social Trails at Costello Park/Manassas Park Community Center

The grounds of Costello Park and the Manassas Park Community Center have a number of “social trails,” which are dirt paths worn into the ground by repeated use. These trails show the needed and desired routes through the properties, and this project entails converting those trails to paved pathways of a similar width to the existing paved paths within Costello Park.

TABLE 25: RECOMMENDATION T-3 DETAILS

Location	Costello Park and Manassas Park Community Center			
Description	Convert social trails to paved paths			
References (prior studies/plans)	N/A			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	0.5	0	1.5	2
Cost Estimate:	\$280,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation T-4: Trail in UOSA ROW from Moseby Drive to Price Drive

The right-of-way of the Upper Occoquan Service Authority (UOSA) in the western part of the City parallels Cabbell Drive and Forest Street for over three quarters of a mile. It currently appears as a mowed grass strip through wooded terrain. In spite of the no trespassing signs posted, anecdotal evidence indicates that it is frequently used as a pedestrian route. This project entails entering an agreement with UOSA to create a gravel path along the length of the ROW from Moseby Drive to Price Drive and open the corridor to approved pedestrian use. Spur connections to Kirby St, and Stonewall Park/Stonewall Road would be included. Some fencing and signage may be required as part of final design to secure UOSA assets along the corridor.

TABLE 26: RECOMMENDATION T-4 DETAILS

Location	UOSA ROW from Moseby Drive to Price Drive			
Description	Off-road trail			
References (prior studies/plans)	N/A			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	3.5	0	1.5	5
Cost Estimate:	\$240,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation T-5: Add Trail to Birmingham Drive

Birmingham Drive is a gravel road that forms the eastern boundary of Manassas Park. It is open to vehicular traffic as far as Manassas Park Elementary School, with the section north of that point blocked by a gate. Approximately 700 feet beyond the gate, the road bends to the left, while a power line cut continues to and across Bull Run Creek. This project envisions an un-paved trail constructed on the west side of the portion of the road that is open to vehicles, with connections to adjacent neighborhoods as practical. The northern portion of the road would be converted to a hiking trail as far as Bull Run Creek, making use of the power line cut. Portions of this project extend beyond the City limits and would require coordination with Prince William County.

TABLE 27: RECOMMENDATION T-5 DETAILS

Location	Birmingham Drive			
Description	Off-road trail connection			
References (prior studies/plans)	N/A			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	3.5	1	0	4.5
Cost Estimate:	\$390,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation T-6: Resurface Cart Paths at Blooms Park

The former cart paths of Blooms Park are crumbling, and in places hazardous. This project entails resurfacing all of them to a safe condition.

TABLE 28: RECOMMENDATION T-6 DETAILS

Location	Blooms Park			
Description	Resurface cart paths			
References (prior studies/plans)	N/A			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	1	1	0	2
Cost Estimate:	\$1,650,000 (Per estimate provided to City by contractor)			

Recommendation T-7: Trail from Birmingham Drive to Signal View Drive

A power line cut extends to the southeast from the intersection of Manassas Drive and Signal View Drive as far as Birmingham Drive, forming a portion of the city line. This project entails creating an un-paved trail in the power line cut connecting Signal View Drive and Birmingham Drive with connections to adjacent neighborhoods as is practical. Portions of this project extend beyond the City limits and would require coordination with Prince William County.

TABLE 29: RECOMMENDATION T-6 DETAILS

Location	Birmingham Dr to Signal View Drive			
Description	Off-road trail connection			
References (prior studies/plans)	N/A			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	2	0	0	2
Cost Estimate:	\$340,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation T-8: Trail from VRE Station to Yates Ford Road

This project entails an un-paved path paralleling the Norfolk-Southern/VRE tracks east from the Manassas Park Station lot to connect to two potential crossings of Bull Run Creek (Orange and Alexandria Bridge Piers and the Yates Ford Road access trail). The path would likely be built in the Dominion Power ROW that parallels the railroad tracks.

TABLE 30: RECOMMENDATION T-8 DETAILS

Location	VRE parking lot to Yates Ford Road			
Description	Off-road trail connection parallel to RR tracks/Bull Run Creek on south side			
References (prior studies/plans)	N/A			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	2	0	0	2
Cost Estimate:	\$450,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation T-9: Trail Connections from Elementary Schools to Michael Court and Bradley Court

The Cougar Elementary School recess field sits within yards of both Michael Court and a pipestem of Bradley Court. Creating paved path connections between the existing path that surrounds the field and these streets would shorten the walking distance and increase safety for students who live on Michael Court, Heather Court, Matthew Drive, Bradley Court, William Street, Greenshire Drive and Hedgeford Street. These paths would each be no more than 300 feet long through existing wooded terrain.

TABLE 31: RECOMMENDATION T-9 DETAILS

Location	Michael Court and Bradley Court			
Description	Trail connections from the ends of Michael Court and Bradley Court to the elementary school recess field			
References (prior studies/plans)	N/A			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	1.5	0	0	1.5
Cost Estimate:	\$90,000 (Construction, CEI, Contingency, PE & ROW)			

Manassas Park Trails Recommendations

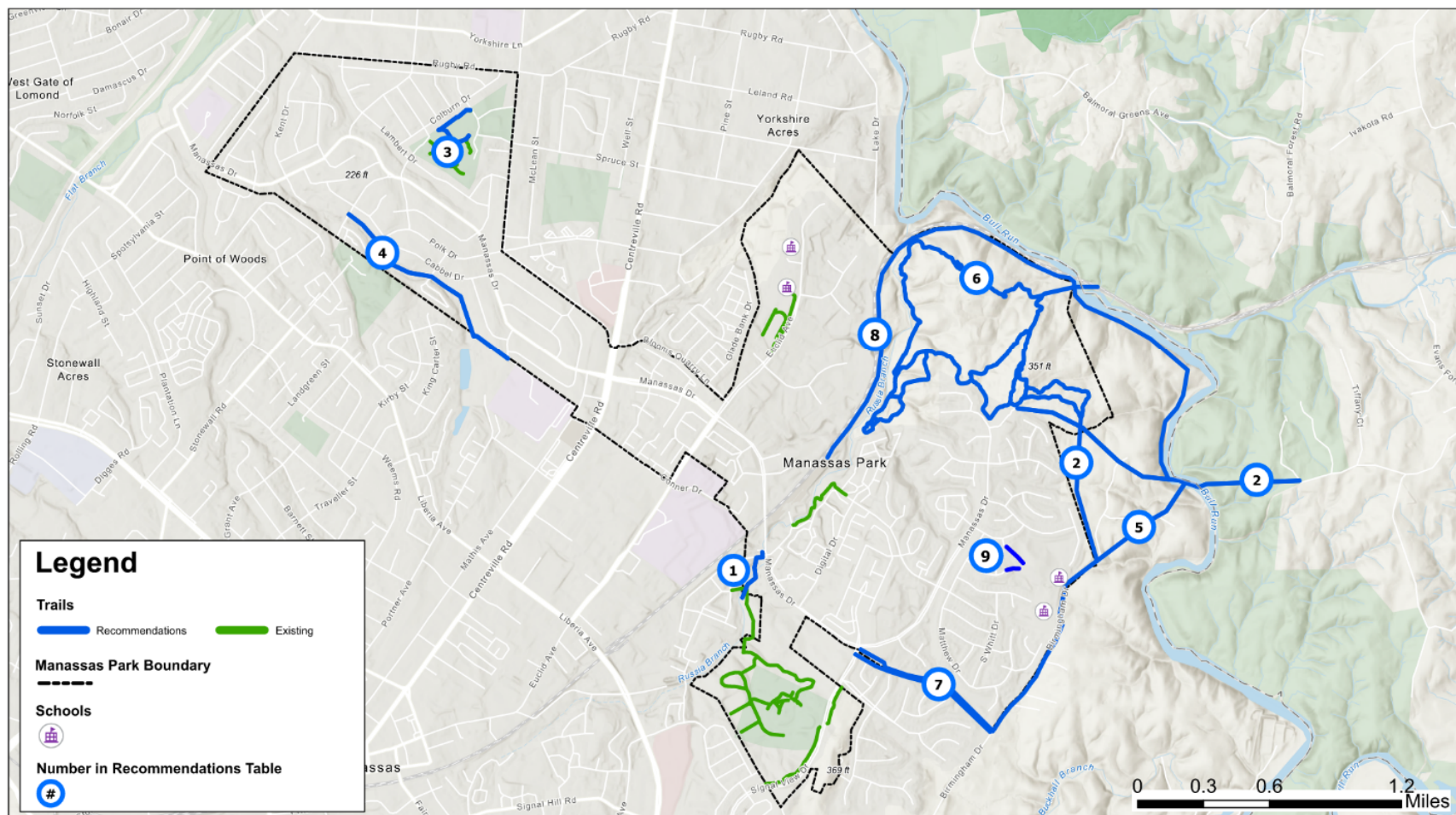


FIGURE 4: TRAILS RECOMMENDATIONS FROM THE ACTIVE TRANSPORTATION PLAN

Safety Category Recommendations

Recommendation S-1: Speed Reduction Measures on Manassas Drive in Park Central

The Park Central Complete Streets plan recommends measures to slow traffic approaching the Park Central area from east or west on Manassas Drive, specifically speed indicator signs and textured pavement markings.

TABLE 32: RECOMMENDATION S-1 DETAILS

Location	Southbound Manassas Drive between Euclid Ave and Bank Street and northbound Manassas Drive between Digital Street and Railroad.			
Description	Install speed indicator signs and speed reduction pavement markings			
References (prior studies/plans)	Park Central Complete Streets Findings and Recommendations (September 20th, 2022)			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	2.5	0.5	1	4
Cost Estimate:	\$110,000 (Construction, CEI, Contingency, PE & ROW)			

Recommendation S-2: Signal Recommendations from 2022 HSIP Application

The City submitted an application for funding under the Highway Safety Improvement Program (HSIP), with improvements to intersections at intersections from Polk Drive to Andrew Drive. The individual improvements included in that application are included within this recommendation.

TABLE 33: RECOMMENDATION S-2 DETAILS

Location	Manassas Drive between Polk Drive and Andrew Drive			
Description	11 Flashing Yellow Arrow installations, 63 high-visibility signal backplates, 3 RRFB installations			
References (prior studies/plans)	HSIP Application 2 - Manassas Drive Signal Related Improvements (October 2022)			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	3.5	1.5	1.5	6.5
Cost Estimate:	\$270,000 (Construction, CEI, Contingency, PE & ROW)			

Manassas Park Safety Recommendations

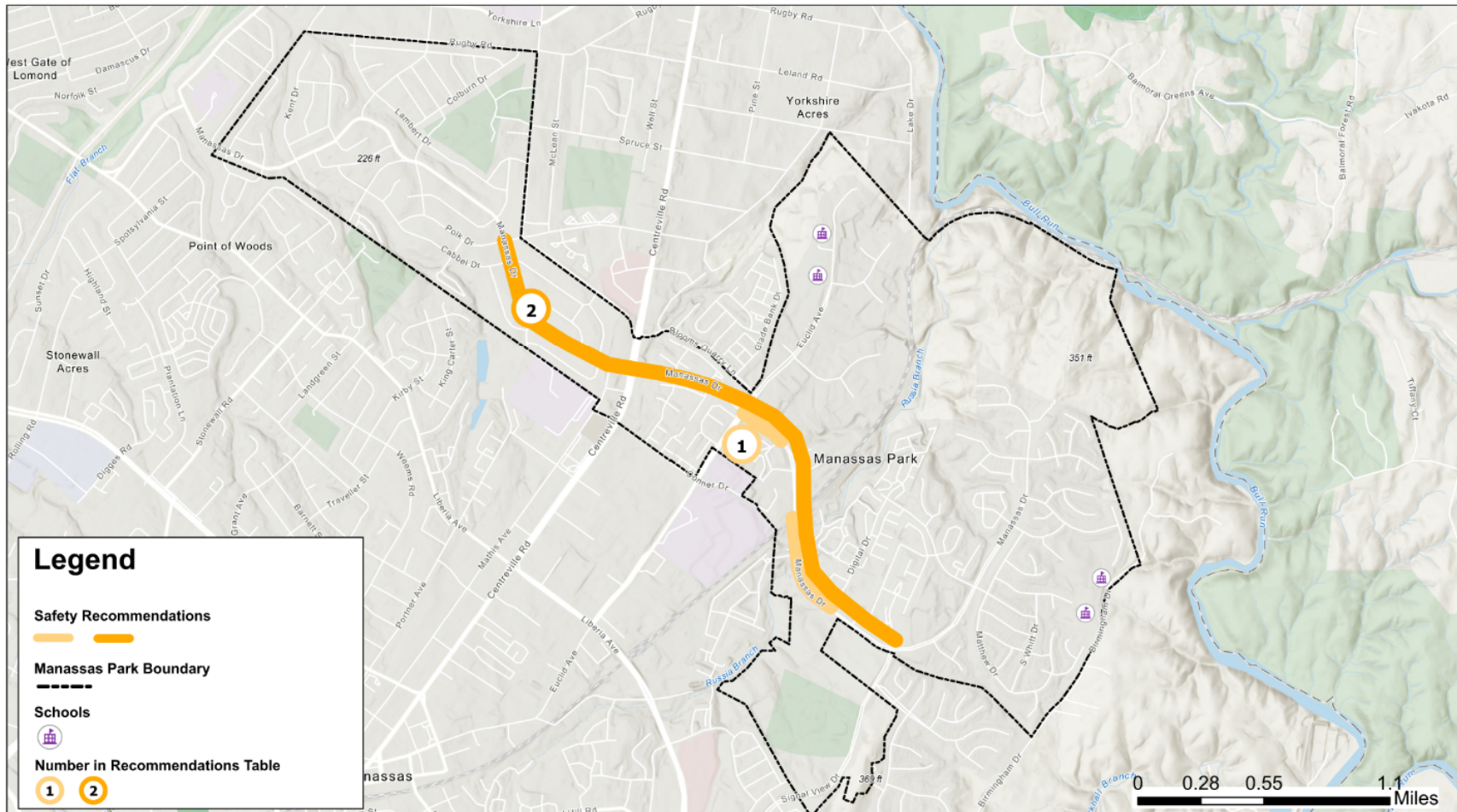


FIGURE 5: SAFETY RECOMMENDATIONS FROM THE ACTIVE TRANSPORTATION PLAN

Further Study Category Recommendations

Recommendation FS-1: Bull Run Trail Crossing Location Study

While other recommendations in this plan identify two potential locations for active transportation facilities to cross Bull Run Creek at the Orange and Alexandria Bridge Piers or at the Yates Ford Road access trail, there may be other viable possibilities to connect the City's active network to the Bull Run-Occoquan Trail and Fairfax County. This study would evaluate potential trail connection alignments to Fairfax County from eastern Manassas Park. Study limits would extend from VA 28 to Signal Hill Road. Potential connections include VRE/Dominion ROW, Eavesdrop Brewery, Birmingham Dr, Yates Ford Rd, Balmoral Greens Ave, Orange and Alexandria Railroad Bridge Piers, and Hemlock Overlook Regional Park.

TABLE 34: RECOMMENDATION FS-1 DETAILS

Location	Bull Run stream valley from VA 28 to Signal Hill Road			
Description	Study to evaluate potential alignments for a trail connection and pedestrian bridge			
References (prior studies/plans)	<ul style="list-style-type: none"> • MWCOG National Capital Trail Network • Fairfax County Bicycle/Trajectory Connections Analysis • Capital Trails Coalition Capital Trails Network • City of Manassas Park Comprehensive Plan (June 2020) 			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	1.5	0	0	1.5
Cost Estimate:	\$100,000 (Planning)			

Recommendation FS-2: Safe Crossing Study – Norfolk Southern RR

Pedestrian facilities currently end a few yards to the north and south of the Norfolk Southern/VRE tracks on the east side of Manassas Drive. No pedestrian facilities exist in this area on the west side of the street. This study would evaluate potential improvements of the existing crossing to enhance safety for vehicles and pedestrians was recently completed, as well as evaluate potential grade-separated alternatives in the vicinity of the VRE platform.

TABLE 35: RECOMMENDATION FS-2 DETAILS

Location	Manassas Drive/Norfolk Southern Railroad crossing			
Description	Study to evaluate pedestrian crossing options at the Manassas Drive/NS Railroad crossing			
References (prior studies/plans)	City of Manassas Park Comprehensive Plan (June 2020)			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	4.5	1	1.5	7
Cost Estimate:	\$80,000 (Planning)			

Recommendation FS-3: Study to Evaluate Bicycle Facility Options for Euclid Avenue

Euclid Avenue is a key bicycle corridor connecting Manassas Park, Manassas, and the portion of the County in between. The City of Manassas has installed unprotected bicycle lanes in its portion of the corridor. In Manassas Park, the portion of the corridor adjacent to the high school sports fields has an off-street path. Other portions have no bicycle facilities. The intent of this recommendation is a joint study between all three jurisdictions to arrive at a shared vision for bicycle facilities in the corridor, in order to ensure a comfortable, safe ride for cyclists throughout.

TABLE 36: RECOMMENDATION FS-3 DETAILS

Location	Euclid Avenue from Liberia Avenue to Manassas Park High School			
Description	Evaluate bicycle facility options (bicycle lanes, cycle track, shared use path, etc.) and select alternative.			
References (prior studies/plans)	N/A			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	5.5	1.5	1	8
Cost Estimate:	\$80,000 (Planning)			

Recommendation FS-4: Safe Crossing Study – VA 28

The lack of safe locations for pedestrians and cyclists to cross VA-28 anywhere within Manassas Park was highlighted by various stakeholders during the Active Transportation Plan study, sentiments that have been echoed by members of the City's Planning Board and Governing Body. The issue was identified as a subject that should be the subject of a standalone alternatives analysis. The selected alternative could include signal modifications, improved

crosswalks, refuge medians, pedestrian activated signals, and grade-separated crossing options. The study area should extend from Mathis Ave to Sandstone Way.

TABLE 37: RECOMMENDATION FS-4 DETAILS

Location	VA 28 from Conner Dr to Blooms Quarry Ln			
Description	Safe pedestrian crossings study (alternatives analysis and conceptual design) to evaluate pedestrian crossing options for VA 28.			
References (prior studies/plans)	Active Prince William's Recommendations for Manassas Park Trails Connectivity (April 2022) calls for a pedestrian bridge as their preferred solution. Alternatives analysis would consider this option as well as other solutions.			
Prioritization Score	Access & Connectivity (7 pts max)	Safety & Comfort (1.5 pts max)	Equity (1.5 pts max)	Total (10 pts max)
	3.5	1.5	1.5	6.5
Cost Estimate:	\$80,000 (Planning)			

Recommendation FS-5: Blooms Park Long-Term Enhancement Plan

Blooms Park's existing "passive park" concept is popular, but in the long term residents may demand a greater variety of uses and activities, and pressure may grow to generate revenue from the park. A long-range plan identifying enhancements to the park would balance the existing passive park concept with upkeep needs, emergency access, and balance of more active uses.

TABLE 38: RECOMMENDATION FS-5 DETAILS

Location	Blooms Park			
Description	Long-term enhancement plan			
References (prior studies/plans)	N/A			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	0.5	1	0	1.5
Cost Estimate:	\$80,000 (Planning)			

Recommendation FS-6: VA 28 Corridor Innovative Intersections Study

This recommendation encompasses the planning portion of the 2022 Route 28-Centreville Road Corridor Improvements grant application, which seeks to develop VA28 in Manassas Park and

Prince William County into a safer, more multimodal, more pedestrian-focused mixed business corridor by providing safer intersections and converting several existing intersections to safer configurations.

TABLE 39: RECOMMENDATION FS-6 DETAILS

Location	Centreville Rd (VA 28) from Manassas Drive to Bull Run Creek			
Description	VA 28 corridor Innovative Intersections Study			
References (prior studies/plans)	Route 28-Centreville Road Corridor Improvements grant application (Aug, 2022)			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	4.5	1.5	1.5	7.5
Cost Estimate:	\$18,703,146 (per Innovative Intersections submittal)			

Recommendation FS-7: Safe Crossing Study – Manassas Drive

The lack of safe locations for pedestrians and cyclists to cross Manassas Drive between VA 28 and Euclid Street stands out as a barrier to connectivity, specifically affecting the ability of students living west of Manassas Drive to walk to Manassas Park Middle and High Schools. The issue was identified as a subject that should be the subject of a standalone alternatives analysis. The selected alternative could include signal modifications, improved crosswalks, refuge medians, pedestrian activated signals, and grade-separated crossing options.

TABLE 40: RECOMMENDATION FS-7 DETAILS

Location	Manassas Drive from Centreville Road (VA 28) to Euclid Road			
Description	Safe pedestrian crossings study to evaluate pedestrian crossing options for Manassas Drive			
References (prior studies/plans)	N/A			
Prioritization Score	Access & Connectivity	Safety & Comfort	Equity	Total
	3	1	1	5
Cost Estimate:	\$80,000 (Planning)			

Manassas Park Further Study Recommendations

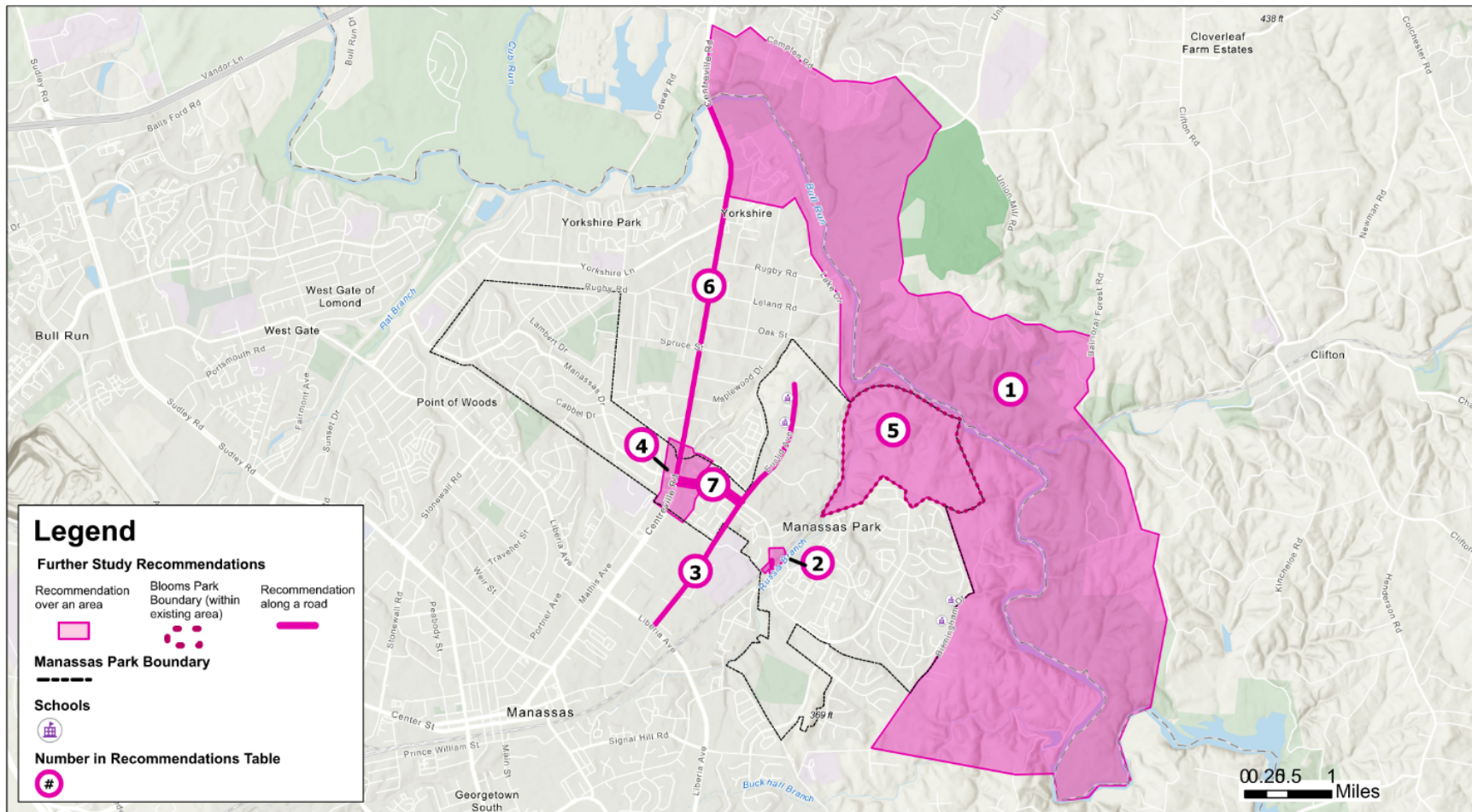


FIGURE 6: FURTHER STUDY RECOMMENDATIONS FROM THE ACTIVE TRANSPORTATION PLAN