

MONTGOMERY PARKS

MANAGED LANES STUDY PROPOSED PARKLAND MITIGATION PLAN



Description

Staff will brief the Planning Board on the proposed Parkland Mitigation Plan for the MDOT SHA Managed Lanes Study





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Recommendation

- Parks staff recommends approval of the Managed Lanes Study parkland mitigation package proposal at the M-NPPC Full Commission Hearing on June 15, 2022.
- Park staff will present parkland impacts resulting from the Managed Lanes Study preferred alternative and staff's parkland mitigation package proposal to Maryland Department of Transportation State Highway Administration.
- As approved, the mitigation package and specifically the land conveyances will be presented to the Full Commission. Once the mitigation package proposal is approved by the Full Commission, a letter agreeing to the proposed mitigation package will be transmitted to MDOT SHA ahead of the projected June 17, 2022 publication of the project's Final Environmental Impact Statement.

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BACKGROUND

The I-495 & I-270 Managed Lanes Study (Study or MLS) was initiated in 2018 by the Maryland Department of Transportation State Highway Administration (MDOT SHA) in partnership with the Federal Highway Administration (FHWA). MDOT SHA has established implementation of the project to occur through the use of a Public-Private-Partnership (P3) model where the P3 Developer funds the construction of the improvements and receives the revenue from the improvements under a lease agreement. The study has been undergoing development and review in accordance with the National Environmental Policy Act (NEPA) and the Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) are scheduled for publication this summer (2022). These documents will contain a mitigation package for areas of parkland required to construct the proposed project as well as the final recommendation by the Federal Highway Administration (FHWA) pertaining to the Preferred Alternative. M-NCPPC has been involved in the NEPA process as a Cooperating Agency and has submitted thousands of comments on the proposed project, attended numerous meetings, and conducted extensive field work during the NEPA process to date.

The original Study area proposed in 2018, as shown in Figure 1, included I-270 from the ICC south to I-495 and I-495 from the American Legion Memorial Bridge to MD 5 in Prince George's County. These proposed improvements would have produced significant impacts to 15 different M-NCPPC Montgomery County parks (Figure 2). M-NCPPC provided comment and review of the project extents, parkland avoidance measures and alternatives, and park impacts through the drafting and publication of the Purpose and Need Statement in May 2018 and the Draft Environmental Impact Statement (DEIS) in July 2020. With the publication of a Supplemental Draft Environmental Impact Statement (SDEIS) in October 2021, a single proposed preferred alternative was presented that focused highway improvements on only a portion of the original Study area and recommended no action on I-495 east of the I-270 spur; this new approach identified the area including I-270 south from the ICC and I-495 west of the I-270 interchange as Phase 1 South (Figure 3). This change in project focus to "no action" or "no improvements" on I-495 east of the I-270 east spur to MD 5 avoided over 13 acres of potential parkland impacts within some of Montgomery County's most well-used and important down county parks including Rock Creek, Sligo Creek, Indian Springs Terrace, and Northwest Branch (acreage estimate is based on Alt8/9). MDOT SHA has stated that "improvements on the remainder of the interstate system may still be needed in the future," but that they "would advance separately, subject to additional environmental studies, analysis and collaboration with the public, stakeholders, and local agencies." A separate NEPA process would be required to evaluate any proposed parkland impacts proposed for highway expansion outside of the Preferred Alternative currently being considered.

The Preferred Alternative as outlined in the SDEIS includes a two-lane, High Occupancy Toll (HOT) managed lanes network on I-495 and I-270 within the limits of Phase 1 South only (Figure 4). On I-495, the Preferred Alternative consists of adding two new HOT managed lanes in each direction from the George Washington Memorial Parkway to west of MD 187. On I-270, the Preferred Alternative consists

of converting the one existing HOV lane in each direction to a HOT managed lane and adding one new HOT managed lane in each direction on I-270 from I-495 to just north of I-370 and on the I-270 east and west spurs.

M-NCPPC PROJECT INVOLVEMENT AND REVIEW

M-NCPPC staff have been actively reviewing the MLS since it was announced in 2018. The Commission was designated a Cooperating Agency due to the regulatory and planning oversight assigned in the region and the significant parkland ownership within the Study limits. M-NCPPC staff have submitted substantive comments on the proposed project, attended numerous meetings, and conducted extensive field work during the NEPA process. Staff from many departments of M-NCPPC Parks and Planning weighed in on all aspects of the NEPA review. In addition, a concurrent Cultural Resources review has been occurring in accordance with Section 106 of the National Historic Preservation Act (NHPA). M-NCPPC has reviewed thousands of pages of documents leading to the FEIS to ensure that any proposed impacts to parkland were first justified, then minimized to the greatest extent practicable. MDOT SHA has provided M-NCPPC opportunity to comment on administrative drafts of the DEIS, SDEIS, and FEIS, published versions of the DEIS and SDEIS, and will soon publish the public FEIS and ROD. MDOT SHA seeks the Planning Board's approved plan for parkland mitigation for publication in the FEIS, which is expected later in the month.

The project has been presented to the Planning Board throughout the NEPA process as new information became available and opportunities for comment and concurrence with project milestones were triggered. Planning board presentations by MDOT SHA related to the MLS occurred on the following dates:

- 7/18/2018 Full Commission Managed Lanes (SHA)
- 11/20/2019 Full Commission Managed Lanes (SHA)

Updates by M-NCPPC staff have been presented to the Planning Board on the following dates:

- 7/15/2020 Full Commission Managed Lanes Update M-NCPPC Staff Briefing
- 10/21/2020 Full Commission Managed Lanes Update –Closed session
- 11/4/2021 Montgomery County Planning Board I-495 & I-270 Managed Lanes Study Planning Board Briefing

The Park, Recreation and Open Space (PROS) Plan presents the most recently adopted Policy for Parks, which outlines a commitment to first avoid and minimize impacts to parkland, then mitigate, and compensate for unavoidable impacts to parkland in cases where the Planning Board deems that

non-park use of parkland is unavoidable and/or serves the greater public interest. Park staff have dedicated significant resources to reviewing documents, conducting field reviews of proposed plans, analyzing park resources, and coordinating with MDOT SHA to ensure that this guidance is followed within the structure of the NEPA process. While Parks' comments on the DEIS, SDEIS, and FEIS highlight that there is still work to be done to refine the design and Limits of Disturbance (LOD) to further reduce impacts as detailed design progresses, MDOT SHA has made commitments to ensure that this work will continue with the future P3 developer. The impacts proposed by the preferred alternative represent the impacts that require mitigation and parkland that must be replaced at equal or greater natural, cultural, and/or recreational value.

OVERALL PROJECT IMPACTS

M-NCPPC and other agencies have worked diligently to reduce resource losses along the Study alignment, but the impacts of a 15-mile highway expansion on adjacent resources (both within the existing highway ROW and beyond) and the resulting increase to impervious surfaces along this severely constrained corridor are considerable. The preferred alternative will impact 455 acres of forest canopy, 31.6 acres of 100-year floodplain, and 3.9 acres of wetlands along its length. This kind of impact to the limited natural resources that still exist within part of the County's most developed areas will have a disproportionate effect on the County's climate goals. Forests, floodplains, and wetlands play a critical role in responding to climate change due to the essential ecosystem services provided by these resources. The project proposes to add 116 acres of impervious pavement to stressed watersheds that lack sufficient stormwater management controls in their existing condition. Increases in impervious surfaces will lead to stormwater runoff further degrading the County's existing aquatic resources and direct construction impacts to over 42,286 linear feet of jurisdictional waterways. Finally, as reviewed in the Section 106 process to date, 4 historic properties and 6 archaeological resources have been identified as affected by the project and will require mitigation and resolution as dictated by the NHPA.

MONTGOMERY COUNTY PARKLAND IMPACTS

MDOT SHA's preliminary design conducted as part of the NEPA process anticipates a need to acquire approximately 7.5 acres of parkland to reasonably construct and maintain the highway improvements outlined in the Preferred Alternative, Alternative 9-Phase 1 South. This acreage is considered unavoidable permanent impact resulting from the implementation of the build alternative. There are five M-NCPPC parks that will be directly impacted: Cabin John Regional Park, Cabin John Stream Valley Unit 6, Old Farm Neighborhood Conservation Area, Tilden Woods Stream Valley Park, and Cabin John Stream Valley Unit 2.

The total area of impact on M-NCPPC Parkland is 8.2 acres, with 7.5 of those acres considered permanent impact and 0.7 acres as temporary impacts. Temporary impacts to parkland are the result of anticipated construction activities that will need to occur within the project's permitted LOD but

are not areas necessary for incorporation into the ultimate project ROW. Specific impacts related to each park are detailed in Table 1 and sections below. Cabin John Regional Park has the highest level of impact with 6.3 total acres impacted. Park areas with both permanent and temporary impacts generally follow areas that are directly adjacent to the existing highway infrastructure and would be subjected to the expansion of the road surface, grading, or retaining walls. The only direct recreational impact on parkland is the relocation of the Highway Loop trail in Cabin John Regional Park. The impacts proposed on parkland would result in a reduction of Forest Interior Dwelling Species (FIDS) habitat of 3.66 acres, a loss of 2.8 acres of designated Biodiversity Area, and a loss of 0.6 acres of designated Best Natural Area.

Table 1: Potential Park Impacts (Acres)

Public Park	Park Size (Acres)	FIDS Impacts (Acres)	Permanent Impacts (Acres)	Temporary Impacts (Acres)	Total (Acres)
Cabin John Regional Park	514.0	3.66	5.7	0.6	6.3
Cabin John Stream Valley Park, Unit 2	105.0	0	0.6	0	0.6
Old Farm Neighborhood Conservation Area	0.8	0	0.1	0	0.1
Tilden Woods Stream Valley Park	64.7	0	0.3	0.1	0.4
Cabin John Stream Valley Park, Unit 6	19.8	0	0.8	0	0.8
Total Potential Impacts to Park Properties (acres)		3.66	7.5	0.7	8.2

Source: I-495 & I-270 Managed Lanes Study Supplemental Draft Environmental Impact Statement and Updated Draft Section 4(f) Evaluation October 2021

CABIN JOHN REGIONAL PARK

Cabin John Regional Park (CJRP) is a 514-acre park and recreation area that is directly adjacent to I-270. CJRP is home to a variety of amenities such as an ice rink, dog park, group picnic area, athletic fields, group campground, and trails. CJRP also contains two designated Biodiversity Areas, the Cabin John Biodiversity Area and the Cabin John Campground Biodiversity Area. The Cabin John Campground Biodiversity Area is a 148 acres area north of Tuckerman Lane and adjacent to I-270 that is noted for the oak-hickory forest with well-drained south-facing slopes and gently rolling uplands.

The total acreage impacted will be 6.3 acres including 2.8 acres of Biodiversity Area, which accounts for the majority of the parkland impacts generated by the Preferred Alternative.

Impacts to CJRP are proposed along the eastern edge of the park unit north of Tuckerman Lane from the proposed widening of SB I-270 including retaining wall construction and SWM facilities construction outside shoulder (Figure 5). M-NCPPC has agreed to allow a stormwater management facility within the park boundary due to the need to protect the existing aquatic resources that M-NCPPC stewards. Additional park impacts will occur due to the needed stabilization of a storm drain outfall for roadway runoff, potential culvert augmentation, and replacement of the highway bridge over Tuckerman Lane.

Trail system impacts will occur from a direct trail reroute of the connector trail between the Highway Loop Trail and Kidney Bean Loop Trail. As part of the re-route, a new trail bridge will be installed over an existing drainage channel. The trail user experience will be degraded by further encroachment of the highway on parkland, resulting in a decreased visual and aesthetic experience and increased highway noise on the trail system and within the campground.

CABIN JOHN STREAM VALLEY UNIT 2

Cabin John Stream Valley Park Unit 2 (CJSVU2) is a 105-acre park that encompasses Cabin John Creek downstream of River Rd and is bisected by I-495. CJSVU2 contains portions of the natural-surface Cabin John Trail, as well as forested areas that provide a protective buffer along Cabin John Creek. A portion of CJSVU2 is designated as a Best Natural Area due to the high-quality natural resources found in the park. The park contains both mesic and floodplain forests with locally uncommon species.

The MLS Preferred Alternative would result in a Section 4(f) use of approximately 0.6 acres of CJSVU2, which is comprised of 0.6 acres of permanent impact and less than 0.1 acres of temporary impact (Figure 6).

These impacts would be required to accommodate the widening of I-495, the replacement of bridges across Seven Locks Road and Cabin John Parkway and associated construction access, realigning the interchange with Cabin John Parkway, a proposed noise barrier along the inner loop of I-495, and a northbound managed lane access to River Road. Along southbound Cabin John Parkway, there would be impacts associated with culvert augmentation, construction of a retaining wall, and resurfacing of Cabin John Parkway for maintenance of traffic. Additionally, two culverts could be augmented to accommodate increases in stormwater runoff anticipated in the southwest quadrant of the I-495 and River Road interchange.

These impacts would result in loss of high-quality forest, stream impacts from bridge construction, and increased impervious surfaces.

CABIN JOHN STREAM VALLEY UNIT 6

Cabin John Stream Valley Park Unit 6 (CJSVU6) is a 19.8-acre park located south of Montrose Road on the east side of I-270. The MLS Preferred Alternative would result in a Section 4(f) use of approximately 0.8 acres of Cabin John Stream Valley Park Unit 6, which is comprised of 0.8 acres of permanent impact and less than 0.1 acre of temporary impact (Figure 5). These impacts would be required to accommodate grading, improvements to an existing culvert, access for construction vehicles and materials, construction of a retaining wall along the realigned ramp from northbound I-270 to eastbound Montrose Road, and construction of a stormwater management facility to treat highway runoff before it reaches mainstem Cabin John Creek. CJSVU6 contains a mature mixed deciduous forest stand and Cabin John Creek including a tributary that runs from Whippoorwill Court. CJSVU6 does not contain any maintained recreational facilities.

The potential Section 4(f) use of Cabin John Stream Valley Park Unit 6 would be located along I-270. The impacts would include forest removal, grading, stream impacts, and increased impervious surface.

TILDEN WOODS STREAM VALLEY PARK

Tilden Woods Stream Valley Park (TWSVP) is a 67.4-acre park located east of I-270 and north of Tuckerman Lane and connects into Tilden Woods Local Park to the north. The MLS Preferred Alternative would result in a Section 4(f) use of 0.4 acre of TWSVP, including 0.3 acre of permanent impact and 0.1 acre of temporary impact (Figure 5).

These impacts would be required to accommodate an area for construction to widen I-270, including replacement of the bridge that carries I-270 over Tuckerman Lane. Bridge replacement would allow daylighting Old Farm Creek, provide floodplain access and wildlife passage, and allow for pedestrian and bicycle accommodations along Tuckerman Lane. Tilden Woods Stream Valley Park extends along the banks of Old Farm Creek from Montrose Road to I-270 and contains mixed floodplain and mesic forest that provides a buffer along Old Farm Creek.

The potential Section 4(f) use of Tilden Woods Stream Valley Park would be located along I-270 and require forest removal, grading, and increased impervious surface.

OLD FARM NEIGHBORHOOD CONSERVATION AREA

Old Farm Neighborhood Conservation Area (NCA) is a small 0.8-acre park located east of I-270 and west of Tilden Lane. Old Farm NCA is composed of undeveloped parkland. The MLS Preferred Alternative would result in a Section 4(f) use of 0.1 acres, all of which would be a permanent impact (Figure 5).

These impacts would be required to construct, operate, and maintain a stormwater management facility on land adjacent to the park. The proposed Section 4(f) use of Tilden Woods Stream Valley Park would be located along I-270.

CULTURAL RESOURCES

As part of the ongoing consultation with SHA/FHWA, M-NCPPC has been participating in the development of a Programmatic Agreement (PA) to address outstanding Section 106 responsibilities related to the project. The PA is currently being finalized with M-NCPPC listed as a concurring party. The document outlines the additional work needed to fulfill the project’s obligations to the National Historic Preservation Act.

Included in the MLS Section 106 PA are three archaeological sites located on Parkland and within the LOD for the MLS project whose evaluation for inclusion on the National Register of Historic Places is incomplete:

- Site 18MO191 (Kavanagh XII) located in Cabin John Regional Park – a late 19th -20th century house site that may represent the Ball Family homestead
- Site 18MO752 (Cabin John Site 1) located in Cabin John Regional Park – an indigenous site preliminarily dated to between 5700-3200 years before present
- Site 18MO457 (Booze Creek) located in Cabin John SVU2 – an indigenous site preliminarily dated to between 11500-3200 years before present

Specifically, the PA outlines the need for and method by which site boundaries, chronologies, and integrity will be established. Once that fieldwork and analysis are completed, each site will be evaluated for its eligibility for inclusion on the National Register, and whether mitigation will be required to address any adverse effects to the historic property.

MITIGATION PLAN

M-NCPPC staff have been engaged since the beginning of this project to fulfill the Parks policy, as defined in PROS, to avoid, minimize, mitigate, and compensate for unavoidable impacts to parkland. Efforts to avoid and minimize impacts have greatly reduced the acreage of parkland affected. Park staff and MDOT SHA have discussed the need for meaningful mitigation since the development of the Purpose and Need for the project. The Purpose and Need states “MDOT SHA will strive to provide meaningful benefit to resources and improve their values, services, attributes, and functions that may be compromised by a build alternative.” In addition, MDOT SHA has committed to “strive to achieve the goal, at a minimum, of no net loss to impacted resources with a goal of net benefit.” The final mitigation plan was developed to offset the impacts of the project to Parkland, including forest loss, stream impacts, recreational impacts, and park experience impacts. The approval of this Parkland Mitigation package proposal to MDOT SHA acknowledges the necessary use of the park areas

described above as unavoidable and serving the greater public interest for use in the Managed Lanes project.

Table 2 provides a tabular summary of the parkland impacts and mitigation commitments negotiated between Parks and MDOT SHA. Staff recommends that the Planning Board endorse these conveyances and park enhancements as appropriate mitigation for impacts related to the construction of Managed Lanes. It is staff's opinion that this proposed package of project commitments, parkland enhancements, and parkland replacement represents equal or greater natural resource, recreation, and economic value than the Section 4(f) land to be acquired by MDOT SHA and adequately mitigates the proposed permanent and temporary impacts to M-NCPPC parkland associated with the construction of the Managed Lanes project.

MDOT SHA has stated that the P3 Developer will be responsible for implementing the parkland enhancements agreed to as part of the Parkland Mitigation package. MDOT SHA and the P3 developer will work jointly with M-NCPPC on the land conveyance items. The details, including process, timelines, triggers for conveyance, and contingencies will be described and agreed upon in a project-specific Memorandum of Understanding (MOU) between MDOT SHA and M-NCPPC. M-NCPPC expects MDOT SHA and the future P3 developer to work in good faith to maintain this commitment of providing meaningful benefits to parkland resources and replacing any values, services, attributes, and functions that may be compromised.

PARKLAND REPLACEMENT

MDOT SHA has proposed five items related to parkland replacement which represent a parkland replacement ratio of 5.65:1 acres of parkland replaced versus parkland permanently impacted. These items are described in Table 3 and shown in Figure 7. If any of the proposed parcels are unable to be conveyed to M-NCPPC then MDOT SHA will be required to provide comparable parcels approved by M-NCPPC that meet similar park values and public service goals.

SERPENTINE BARRENS LAND

MDOT SHA will acquire and convey to M-NCPPC two properties (Acct. no. 00402385 and Acct. no. 02620882) adjacent to the Serpentine Barrens Conservation Park totaling 24.71 acres (Figure 8). These properties are intended to replace the unique forest resources lost in the impacted parkland, particularly the loss of parkland designated as Biodiversity Area and Best Natural Area. Impacts to existing parkland is unique since the areas of forest, especially in CJRP, contain considerable acreage of mature forest within the highly developed down county area. It is not practical to replace these unique forest resources with properties closer to the impacted areas due to the scarcity of this resource in this part of the county.

The Serpentine Barrens Conservation Park is designated as a Best Natural Area and is notable due to the areas of serpentine bedrock geology and unique plant assemblages. The two properties identified are forested parcels contiguous with this existing parkland, contain this same unique geology, and the

conveyance would protect more of this rare habitat in Montgomery County. Additional land would also support existing plans for natural surface trail development.

The P3 Developer will be responsible for acquiring the private property in MDOT SHA's name and would be subject to MDOT SHA's disposition process (which takes up to one year) and approval of the conveyance by the MD Board of Public Works.

MD 97/16TH STREET PARK

MDOT SHA will convey the MDOT SHA owned 2.32-acre right-of-way located at MD 97 and 16th Street (Figure 9) at the conclusion (substantial completion) of the planned MD 97 Montgomery Hills project. The MD 97 Montgomery Hills project will improve vehicular operations and pedestrian and bicycle connectivity and mobility along Georgia Avenue, resulting in the realignment of the MD 97-16th Street intersection. The conveyance of the unused ROW will allow M-NCPPC to build a much-needed park at this location with room for a rectangular field and other park amenities (Figure 10). This conveyance is identified in the Forest Glen/Montgomery Hills Sector Plan. The current project schedule anticipates design completion in the fall of 2025 and the Notice to Proceed in fall of 2027. Construction of the improvements would occur after the Notice to Proceed and take approximately 3 years. If the Montgomery Hills project does not occur in accordance with the current project schedule, M-NCPPC will have the option to require MDOT SHA to provide a similar property both in size, location, and parkland value as approved by M-NCPPC.

NORTHWOOD TRAIL CONNECTOR

MDOT SHA will convey two MDOT SHA owned parcels (Acct. no. 161300980570 and 161300980626) located between Northwood High School and Northwest Stream Valley Park (Figure 11) that comprise a total of 15.35 acres. These forested properties provide a critical natural surface trail connection between the Sligo Creek and Northwest Branch Stream Valley Parks; once the land is conveyed to M-NCPPC, Parks will assume responsibility for maintenance and improvement of the Northwood Chesapeake Bay Trail which is identified in the Countywide Trails Plan as a high priority connector trail. MDOT SHA has confirmed that these parcels have completed their internal clearing house process and are being held for the MLS parkland mitigation. These parcels should be conveyed to M-NCPPC immediately following final approval of the Managed Lanes project.

UNUSED PROJECT LAND

MDOT SHA will convey to M-NCPPC unused ROW and LOD along the project post-construction. This item recognizes that there are areas currently shown as impacted by the project that might not be needed once the detailed design progresses, areas that are indicated as permanent impacts which may ultimately be temporary impacts, and areas where the existing ROW can be simplified to better meet both agencies' goals for managing resources and infrastructure in the area. MDOT SHA has stated that the P3 Developer will be provided additional compensation for any net reduction in

permanent impact areas of disturbance within existing public parklands. The incentive will be paid at \$50,000/acre with increments measured in 0.25 acre of permanent impact reduction.

PARKLAND ENHANCEMENTS

In addition to the Parkland replacement properties, MDOT SHA agreed to a suite of parkland enhancements within the affected parks. The focus of these mitigation elements is to make improvements within the affected parks and watersheds proximate to the impacts of the highway expansion. The details of these items are shown in Table 2 and further clarifications on process, timing, and contingencies will be agreed upon in a MOU between M-NCPPC and MDOT-SHA.

CABIN JOHN REGIONAL PARK

In CJRP a number of improvements to the park user experience will be implemented, along with enhancement and maintenance of the existing forest (Figure 12). MDOT SHA will construct three natural surface trail bridges, two of which will be new additions and one that is a replacement of an existing bridge. A new trail bridge over Cabin John Creek is proposed that will link the Cabin John and Kidney Bean Loop trails. A second new trail bridge is proposed as part of the Highway Loop Trail-Kidney Bean Trail connector reroute over a tributary that MDOT SHA will be stabilizing as part of the project. Finally, a trail bridge near Gainsborough Rd on the Cabin John trail will be replaced in conjunction with stabilization of the stormwater outfall from Gainsborough Road (Figure 13). Park user access to the park will be improved with the rebuilding of the parking area along Tuckerman Lane and the replacement and improvement of the vehicular bridge over Old Farm Creek that provides access to the Cabin John Campground Area of the park. The new vehicular bridge proposed will accommodate safer and easier pedestrian and cycling access while maintaining vehicular access for maintenance and campground users. The proposed parking area improvements will provide more efficient parking spaces, ADA accommodations, and buffer plantings around the edge to stabilize the area between the parking lot and Old Farm Creek.

Natural resource related improvements will consist of the stabilization of 255 linear feet of the stormwater outfall from Gainsborough Road and the implementation of a seven-year maintenance and management plan along the forest edge adjacent to the highway (within 100ft) consisting of tree and shrub plantings and Non-Native Invasive (NNI) plant control with success metrics approved by M-NCPPC.

CABIN JOHN SVU2

In CJSVU2 improvements will focus on the trailhead and parking lot on Seven Locks Rd, stream channel improvements, wildlife passage under the highway bridge, NNI control, and reforestation. The parking and trailhead improvements will include paving the parking lot and incorporating ADA improvements, installation of a bicycle repair station, and drainage improvements. The stream work will focus on 1,000 linear feet of Cabin John Creek under the highway bridge and will include removal

of existing failed concrete bank stabilization, aquatic passage improvements, channel grade control, and wildlife passage accommodation on the west bank (Figure 14). In addition, a degraded stormwater outfall and sewer line exposure will be restored and stabilized. NNI control and reforestation will occur within 50ft of the highway to restore the forest edge and provide visual screening where appropriate; success of the reforestation will be gauged on metrics approved by M-NCPPC.

OTHER PARKLAND ENHANCEMENT

Parkland within CJSVU6, Old Farm NCA, and Tilden Woods Stream Valley that is within 50ft of the LOD will receive 7 years of NNI control and restoration plantings to restore the forest edge with success of the reforestation gauged on metrics approved by M-NCPPC. The new I-270 highway bridge over Old Farm Creek and Tilden Lane will provide a more natural connection between CJRP to the west and Tilden Woods SVP to the east. Finally, SHA will restore a degraded stormwater outfall from Greentree Road (In CJSVU5) that flows into Cabin John Creek. This outfall is currently degraded with steep incised banks and is actively eroding. This outfall restoration will improve water quality in the Cabin John Watershed which will be heavily impacted by significant increases in impervious surfaces from the highway footprint.

Table 2: Maryland-National Capital Park & Planning Commission Mitigation Plan

No.	Maryland-National Capital Park & Planning Commission Mitigation Commitment	Mitigation Benefit
Parkland Replacement Proposed for all Impacts		
Total Park Impacts -Permanent: 7.5 acres -Temporary: 0.7 acre -Total: 8.2 acres		
1	Acquire the 24.14-acre Bardon, Inc. property (Acct. no. 00402385) and convey to M-NCPPC	Properties are adjacent to existing Serpentine Barrens Conservation Park that is a Best Natural Area, the addition of these properties preserves 24.71 acres of existing FIDS habitat.
2	Acquire the 0.57-acre Bardon, Inc. property (Acct. no. 02620882) and convey to M-NCPPC	These properties will expand the possibilities for trail development at the Serpentine Barrens.
3	Unused SHA property post-construction (unknown acreage) Evaluate the ability to re-convey unused property previously owned by M-NCPPC back to that agency post construction.	Reduces total park property converted to transportation use.
4	Convey the MDOT SHA owned 2.32-acre right-of-way located at MD 97 and 16 th Street	Provides recreational value

5	<p>Convey two MDOT SHA owned 15.35-acre parcels (Acct. no. 161300980570 and 161300980626) located between Northwood High School and Northwest Stream Valley Park</p>	Provides recreational value
CABIN JOHN STREAM VALLEY PARK UNIT 2		
<p>Park Impacts: Cabin John Stream Valley Park Unit 2 -Permanent: 0.6 acre -Temporary: <0.1 acre -Total: 0.6 acre</p>		
6	<p>Plan, design, and construct improvements to formalize the Cabin John Trail trailhead parking area along Seven Locks Road including:</p> <ul style="list-style-type: none"> • Reconstruct the existing driveway per MD Standard No. 630.02 or applicable County standard. • Pave the existing gravel lot with full depth asphalt. Paved area measures approximately 60' x 100'. Assume open section lot. • Optimize parking lot design to provide maximum number of spaces, including ADA spaces (with signage) per the ADA Guidelines. Stripe new parking spaces. • Provide drainage and stormwater management facilities as required to treat impervious area per County requirements. • Install signage prohibiting littering/dumping, replace existing trash can, and remove existing illicitly dumped material. • Relocate existing sign kiosk. • Construct bicycle repair stand, with tools and pump at Cabin John Trail trailhead. 	Recreational Improvements and improved access to park
7	<p>Stream stabilization (~1,000 linear feet) along Cabin John Creek including:</p> <ul style="list-style-type: none"> • Remove all concrete structures within stream along both along existing banks and failed pieces in the stream • Rebuild banks with rock and vegetative stabilization techniques that promote environmental functions • Replant riparian buffer with native seed, herbaceous plugs, and native shrubs and trees • Install instream grade control structures (such as rock sill, crossvane, riffles, etc.) to transition stream into, through, and out of the underpass area in a stable and ecologically sound way • Protect sewer manhole and restore I-495 on-ramp outfall to Cabin John Creek with environmentally sensitive channel techniques 	Stream stabilization and naturalization, improved water quality and instream habitat

8	Plan, design, and implement forest and terrestrial vegetation mitigation including: <ul style="list-style-type: none"> • Non-native/Invasive (NNI) control for 7 years within 50' buffer of LOD. • Infill plantings consisting of shrubs, understory/canopy trees and herbaceous seeding within NNI control areas (50 ft buffer from LOD). 	Removal and control of non-invasive species; re-vegetation and reforestation
9	Plan and design wildlife passage area under I-495 overpass of Cabin John Creek and Cabin John Parkway by lengthening new bridge structures. This will allow wildlife passage on the west side bank of Cabin John Creek while minimizing wildlife-vehicular conflicts along Cabin John Parkway by constructing wildlife exclusion fencing along the east side of the creek next to the Parkway, in coordination with M-NCPPC.	Provides wildlife passage and park connectivity
CABIN JOHN REGIONAL PARK		
Park Impacts: Cabin John Regional Park -Permanent: 5.7 acres -Temporary: 0.6 acre -Total: 6.3 acres		
10	Plan, design, and construct a fiberglass pedestrian bridge over the outfall/tributary to Cabin John Creek at STA 3640+00 for the natural surface connector trail including: <ul style="list-style-type: none"> • Performing hydraulic study and determining feasibility of new crossing • Constructing fiberglass bridge per M-NCPPC-provided Fiberglass Bridge specification or per equal to or better alternative approved by M-NCPPC. 	Improved pedestrian and cyclist access to park
11	Plan, design, and construct improvements for pedestrian and cycling access to the Robert C. McDonnell campground access road by: <ul style="list-style-type: none"> • Reconstruction of existing bridge over Old Farm Creek in same location per M-NCPPC-provided specifications for Prefabricated Steel Truss Bridge (Section 401) and Helical Piles (Section 403) (hydraulically in-kind replacement). • Provide temporary crossing for pedestrians and cyclists during bridge reconstruction. • Provide stream stabilization work immediately upstream, underneath, and immediately downstream of the bridge • Limit time of year of bridge reconstruction to window when campground access is closed. • Bridge design shall provide for ADA compliance, pedestrian access, and passage of cyclists 	Improved pedestrian and cyclist access to park; stream stabilization

	without dismounting while incorporating a gate to prevent unauthorized access by vehicles	
12	<p>Plan, design, and construct improvements to the existing parking area on Tuckerman Lane near the Robert C. McDonell Campground access road including:</p> <ul style="list-style-type: none"> • Resurface the existing paved lot. (Paved area measures approximately 2500 SF. (25' x 100')) • Optimize parking lot design to provide maximum number of spaces. Stripe new parking spaces. Incorporating ADA parking, as applicable. • Provide additional landscaping in vicinity of lot. 	Improved access to park and landscaping
13	<p>Plan, design, and construct a fiberglass pedestrian bridge over Cabin John Creek to connect the Cabin John Trail to the Kidney Bean Loop Trail, in the vicinity of Goya Drive including:</p> <ul style="list-style-type: none"> • Constructing fiberglass bridge per provided Fiberglass Bridge specification or per equal to or better alternative approved by M-NCPPC. Design and construct in-stream grade control and bank protection structures to stabilize stream in the vicinity of the new bridge 	Improved trail connectivity; reduce erosion; streambank stabilization
14	<p>Plan, design, and construct improvements for the stabilization of the Gainsborough Road stormwater outfall to Cabin John Creek (approximately 255 linear feet) with environmentally sensitive channel techniques.</p> <ul style="list-style-type: none"> • Include a planting plan to compensate for forest impacts related to this work. • Provide treatment of invasive bamboo surrounding the channel. • Construct pedestrian trail bridge replacement over Gainsborough outfall channel 	Outfall stabilization; improved water quality; non-invasive species removal; reforestation and revegetation; improved pedestrian access to park
15	<p>Plan, design, and implement forest and terrestrial vegetation mitigation including:</p> <ul style="list-style-type: none"> • Conducting forest stand delineation (FSD) within 100 ft buffer of LOD within park property and develop a 7-year non-native invasive control management plan. • Implementing a 7-year non-native invasive control management plan within 100 feet of the LOD in the biodiversity area. Specific target areas and species to be determined by M-NCPPC Montgomery Parks. 	Removal and control of non-invasive species, comprehensive natural resource inventory; park management plan; reforestation and revegetation; natural resource restoration

	<ul style="list-style-type: none"> Infill plantings consisting of shrubs, understory/canopy trees and herbaceous seeding within NNI control areas (100 ft buffer from LOD). 		
TILDEN WOODS STREAM VALLEY PARK, OLD FARM NEIGHBORHOOD CONSERVATION AREA, AND CABIN JOHN STREAM VALLEY PARK UNIT 6			
	Park Impacts: Tilden Woods Stream Valley Park: -Permanent: 0.3 acre -Temporary: 0.1 acre -Total: 0.4 acre	Park Impacts: Old Farm Neighborhood Conservation Area: -Permanent: 0.1 acre -Temporary: 0 acre -Total: 0.1 acre	Park Impacts: Cabin John Stream Valley Park - Unit 6: -Permanent: 0.8 acre -Temporary: 0.1 acre -Total: 0.8 acre
16	Plan, design, and construct improvements for the stabilization of the Greentree Road stormwater outfall from the pipe to a natural surface trail just south of Cabin John Creek (approximately 310 linear feet) with environmentally sensitive channel techniques. Include a planting plan to compensate for forest impacts related to this work.	Outfall stabilization; improved water quality; reforestation or revegetation; reduced erosion	
17	Plan, design, and implement forest and terrestrial vegetation mitigation including: <ul style="list-style-type: none"> • NNI control for 7 years within 50' buffer of LOD. • Infill plantings consisting of shrubs, understory/canopy trees and herbaceous seeding within NNI control areas (50 ft buffer from LOD). 	Reforestation and revegetation	
18	Plan, design, and construct a single bridge structure with a clear span of Tuckerman Lane (including the associated pedestrian and bicycle facilities) and a clear span over Old Farm Creek (including the restored floodplain and a wildlife passage): <ul style="list-style-type: none"> • Provide wildlife passage area on northern bank per M-NCPPC specifications • Provide fish passage under Old Farm Creek overpass by restoring the stream to a natural channel and tie into the existing stream restoration immediately upstream • Stream span must maximize floodplain cross-sectional area 	Wildlife corridor connectivity, stream restoration, space for pedestrian and cycling improvements	

ADDITIONAL ITEMS AND EXPECTATIONS

MANDATORY REFERRAL

MDOT SHA will submit the FEIS (to be published in June 2022) for Mandatory Referral review before the publication of the Record of Decision. The Mandatory Referral review will encompass all aspects of the project, including transportation analysis, the selection of the Preferred Alternative, resource impacts and considerations, environmental justice, and parkland impacts and mitigation.

MOU

MDOT SHA and M-NCPPC will work together on an MOU to codify all elements related to the MLS and M-NCPPC requirements. The MOU will contain the details of all land conveyance, further technical details, park standards, and expectations about the implementation of all parkland enhancements, and formal procedural commitments that assign triggers to specific actions outlined in the mitigation package. In addition, the MOU will contain specific deadlines for land to be conveyed to M-NCPPC and the associated timeline for M-NCPPC land to be converted to ROW.

STORMWATER ENVIRONMENTAL STEWARDSHIP

This project represents a significant opportunity to provide real improvement to the amount of existing impervious surfaces in the watersheds that receive stormwater treatment. As agreed to as part of parkland mitigation key terms for agreement between the two agencies, stormwater environmental stewardship will be included as part of the Project. The MDOT SHA will retain provisions in any final contractual P3 agreement incentivizing the P3 developer to go beyond stormwater management improvements for runoff onto Cabin John and Old Farm Creek that otherwise would be required above the Maryland Department of the Environment regulatory requirements. The Montgomery Parks Department will cooperate with the MDOT SHA and the P3 developer in accommodating said additional stormwater management measures on park property where appropriate and maintenance shall be established between the parties as is customary between the parties.

M-NCPPC will collaborate with MDOT SHA and the Section Developer in providing locations on or within M-NCPPC property where feasible and appropriate for this purpose. Through an MOU and contractual provisions, M-NCPPC and MDOT SHA will establish a target level of additional water quality treatment that must be achieved for the highway within the study area that will be considered part of the Section Developer's commitment to exceed the SWM requirements for this project. In addition, the Developer also has an independent goal of exceeding the stormwater quality protection enhancements for the Project by providing additional stormwater quality mitigation beyond the regulatory requirements in support of their sustainability goals.

PARK CONSTRUCTION PERMIT

The Park Development Division of the M-NCPPC Department of Parks issues permits approving work to be done on properties owned or managed by the M-NCPPC and on properties to be dedicated to the M-NCPPC. Technical Reviews of proposed work are provided to check plans for technical accuracy and minimization of impacts to the park properties prior to the issuance of a Park Construction Permit. A Park Construction Permit must be issued prior to the commencement of any work on property owned, managed, or being conveyed to the M-NCPPC.

M-NCPPC will require MDOT SHA to apply for a Park Construction Permit once the P3 developer has advanced their plans to approximately 35% and taken the project to the Planning Board for Mandatory Referral for a second time. Plans will undergo technical review of the improvements and impacts related to parkland before they are approved. Details of the review process will be included in an MOU between M-NCPPC and MDOT SHA.

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Figure 1. Managed Lanes Study Area



Source: I-495 & I-270 Managed Lanes Study Draft Environmental Impact Statement June 2020

Figure 2. Montgomery County Parkland Originally Encompassed within I-495 & I-270 Managed Lanes Study Area

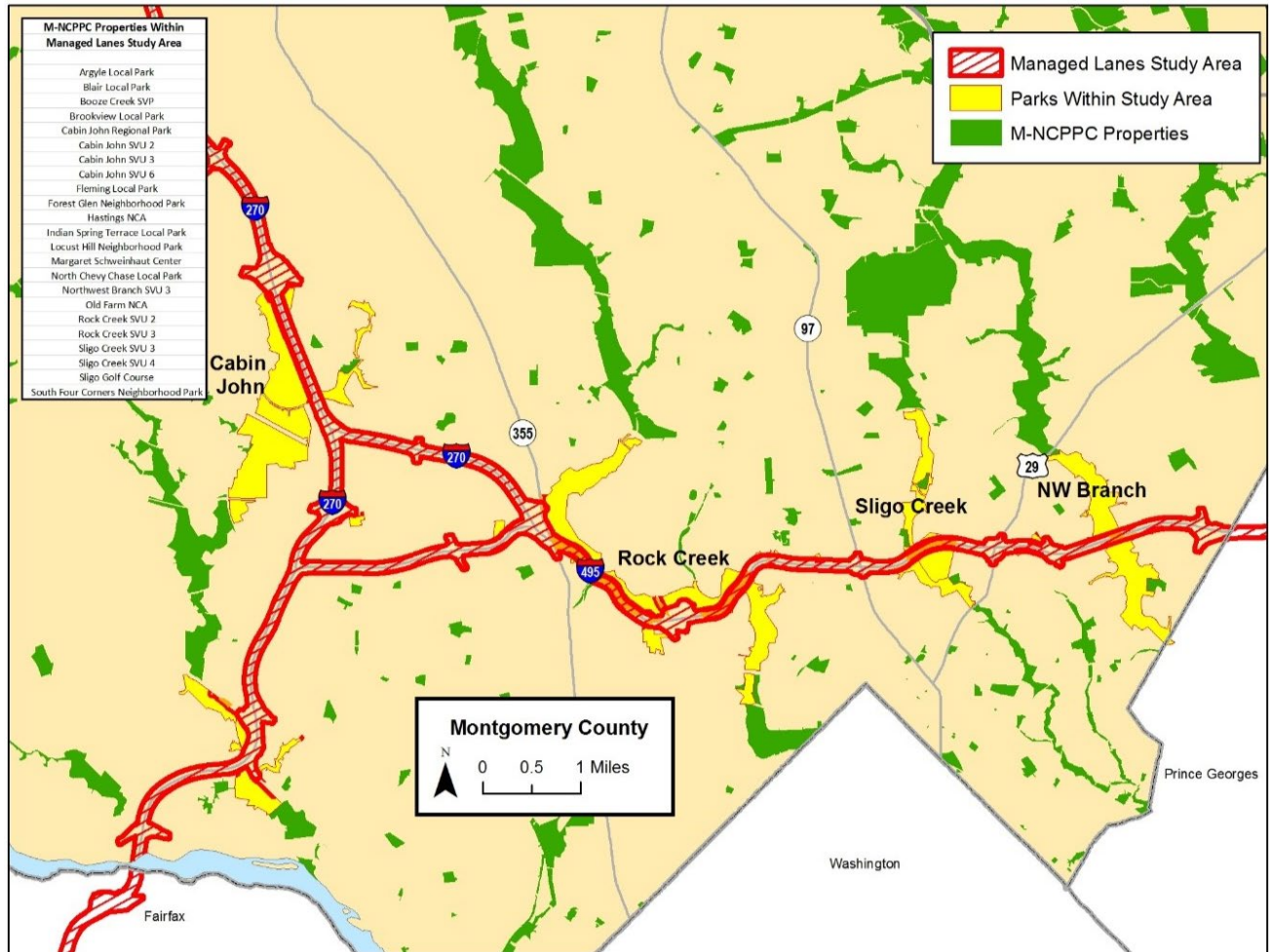


Figure 3. Preferred Alternative Phase 1 South Study Area



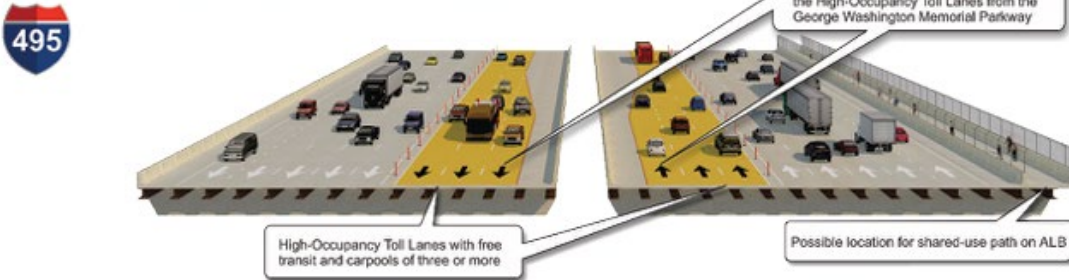
Source: I-495 & I-270 Managed Lanes Study Supplemental Draft Environmental Impact Statement and Updated Draft Section 4(f) Evaluation October 2021

Figure 4. Preferred Alternative-Phase 1 South Typical Sections

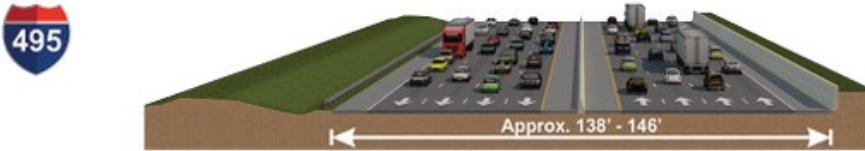
I-495 from the George Washington Memorial Parkway to east of MD 187



I-495: American Legion Bridge (Looking north towards Maryland)



I-495 east of MD 187 to west of MD 5 - NO ACTION AT THIS TIME

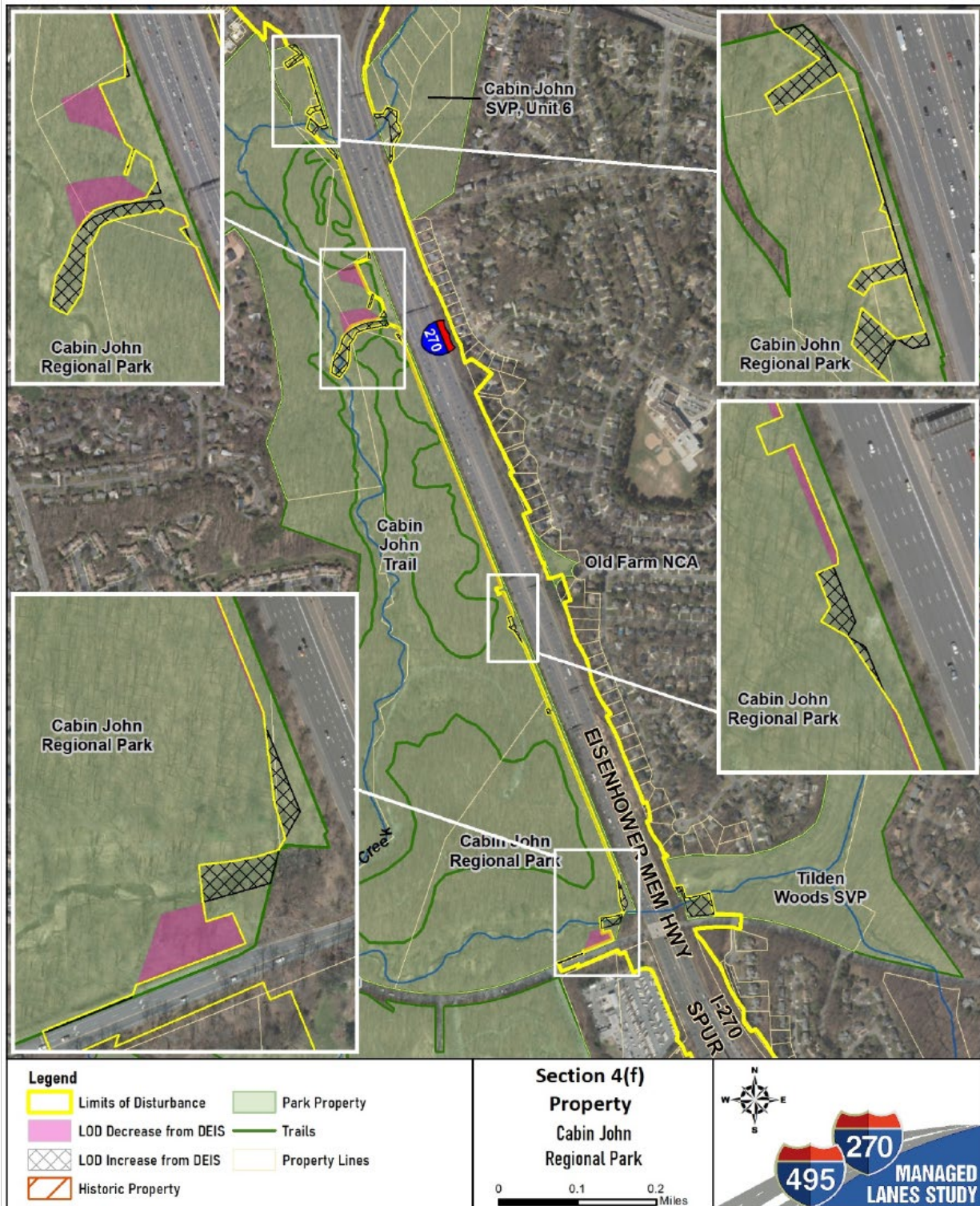


I-270 from I-495 to I-370



Source: I-495 & I-270 Managed Lanes Study Supplemental Draft Environmental Impact Statement and Updated Draft Section 4(f) Evaluation October 2021 (HOT Managed Lanes shown in yellow)

Figure 5. Proposed Impacts to Parkland Adjacent to I-270



Source: I-495 & I-270 Managed Lanes Study Supplemental Draft Environmental Impact Statement and Updated Draft Section 4(f) Evaluation October 2021

Figure 6. Proposed Impacts to Cabin John SVU2



Source: I-495 & I-270 Managed Lanes Study Supplemental Draft Environmental Impact Statement and Updated Draft Section 4(f) Evaluation October 2021

Figure 7. Overview of Land Conveyance Parcels

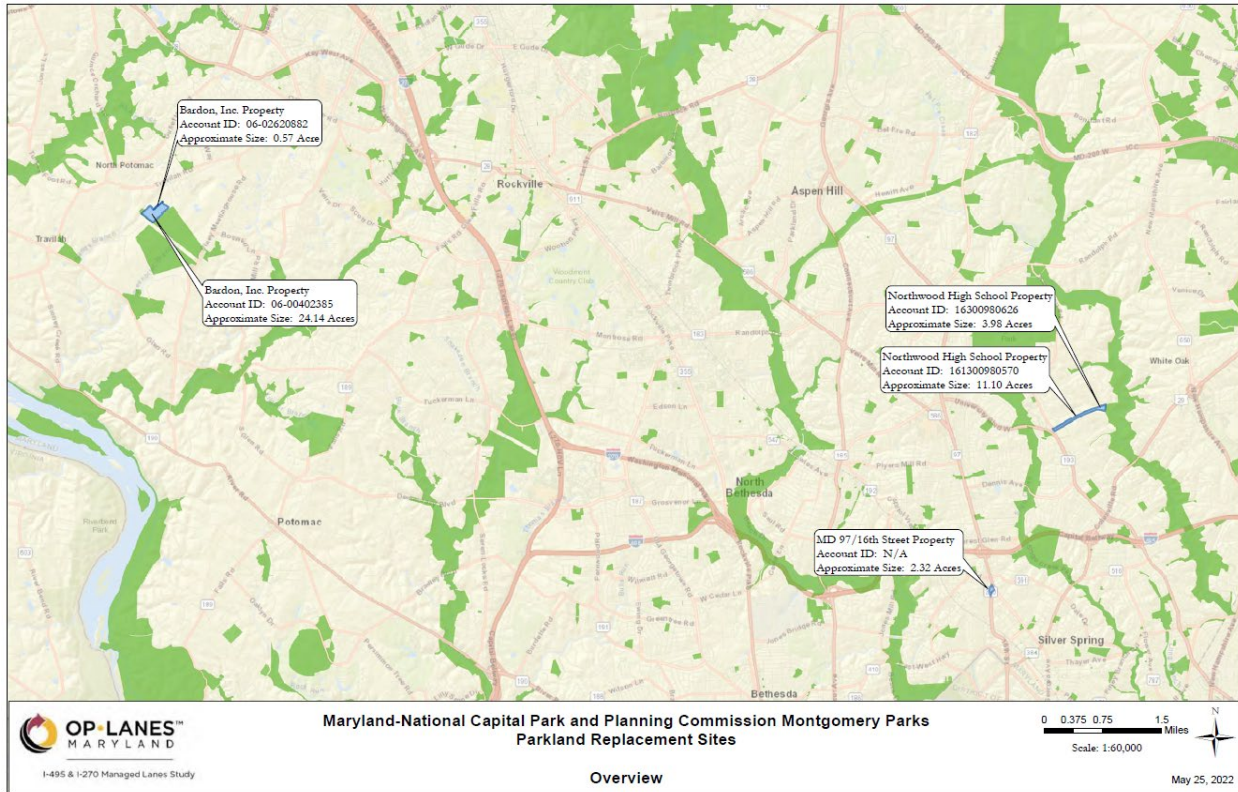


Figure 8. Serpentine Barrens Properties

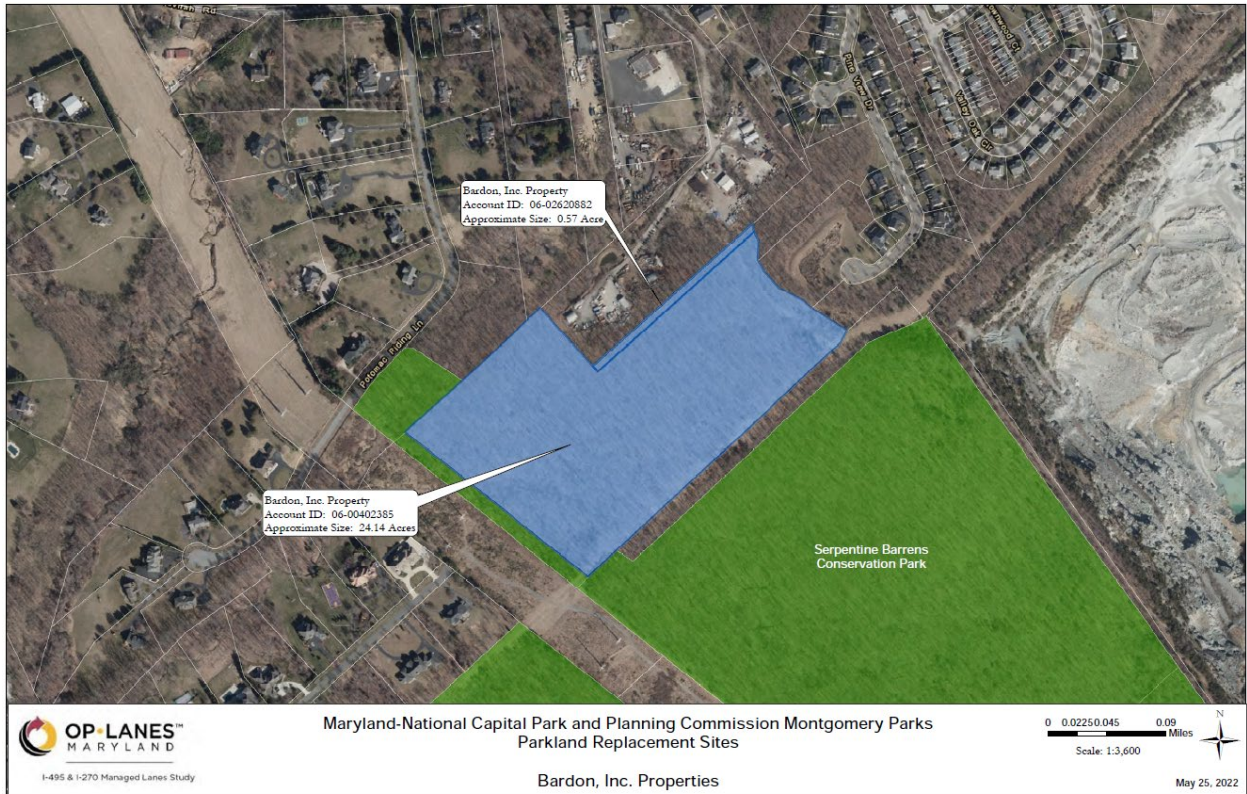


Figure 9. MD 97&16th Street Property



Figure 10. MD 97&16th Street Proposed Project Elements and Parks' Property Conveyance

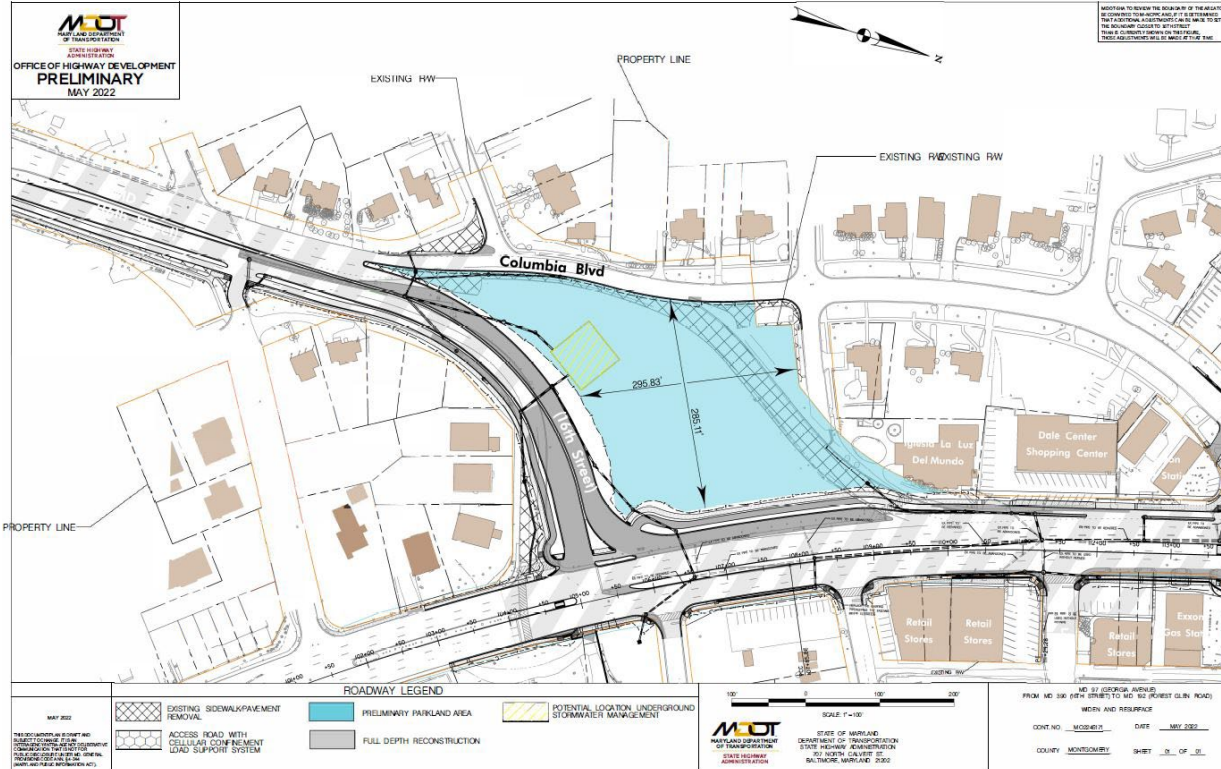


Figure 11. Northwood Properties

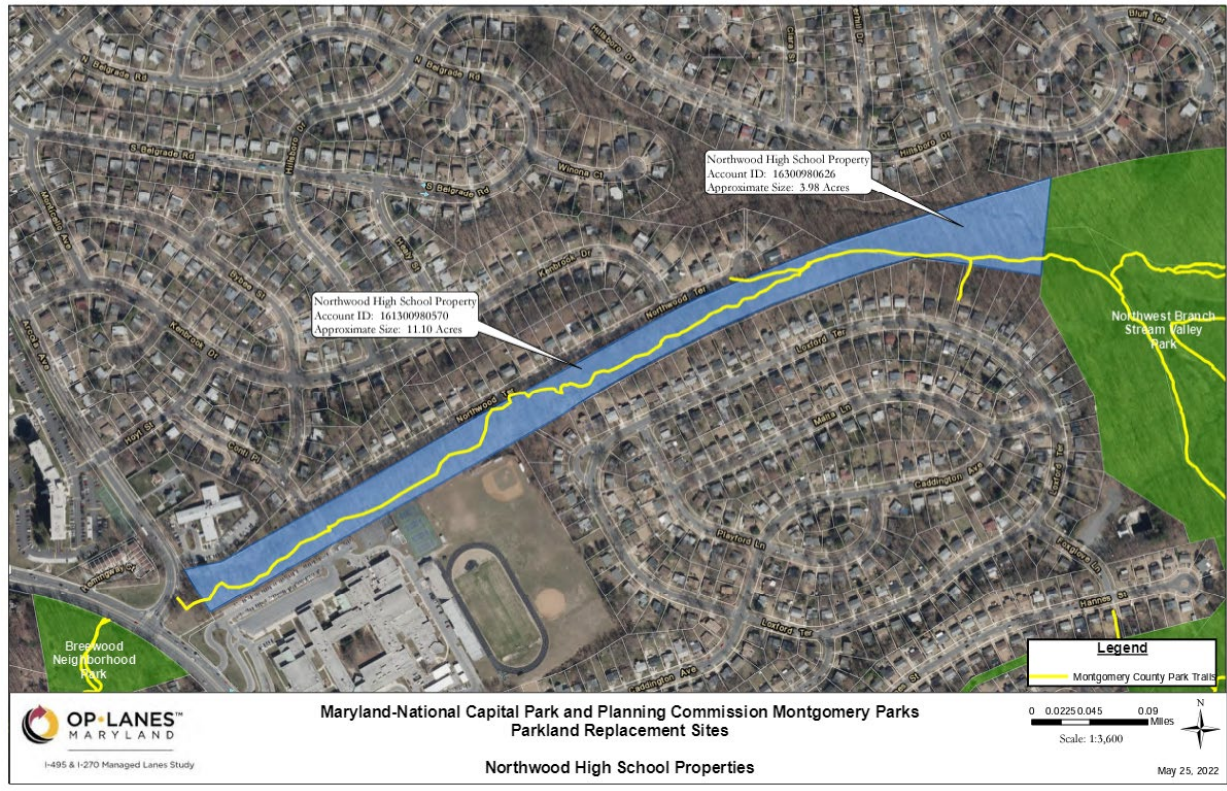


Figure 12. Cabin John Regional Park Improvements

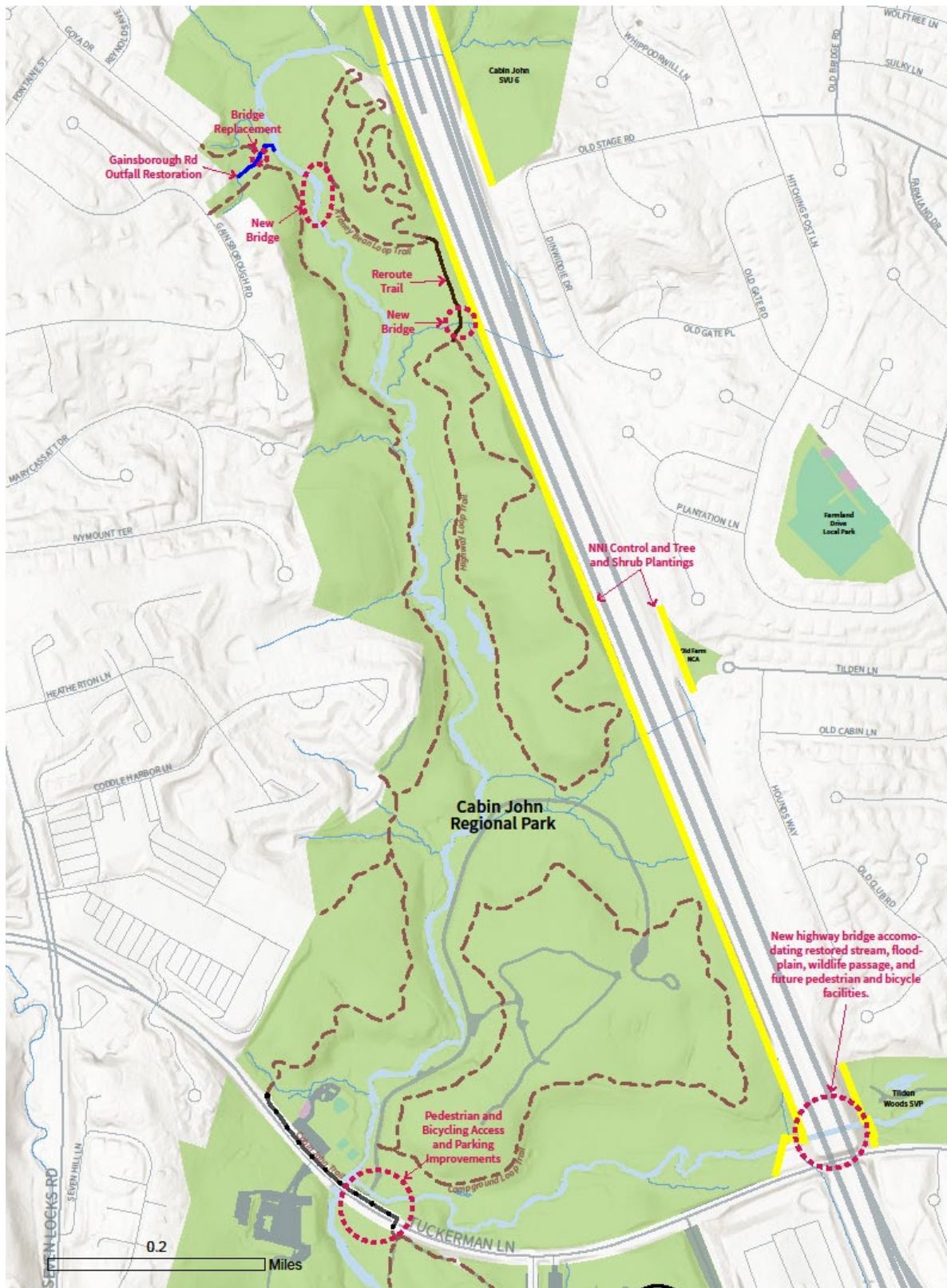


Figure 13. Gainsborough Road Outfall Stabilization

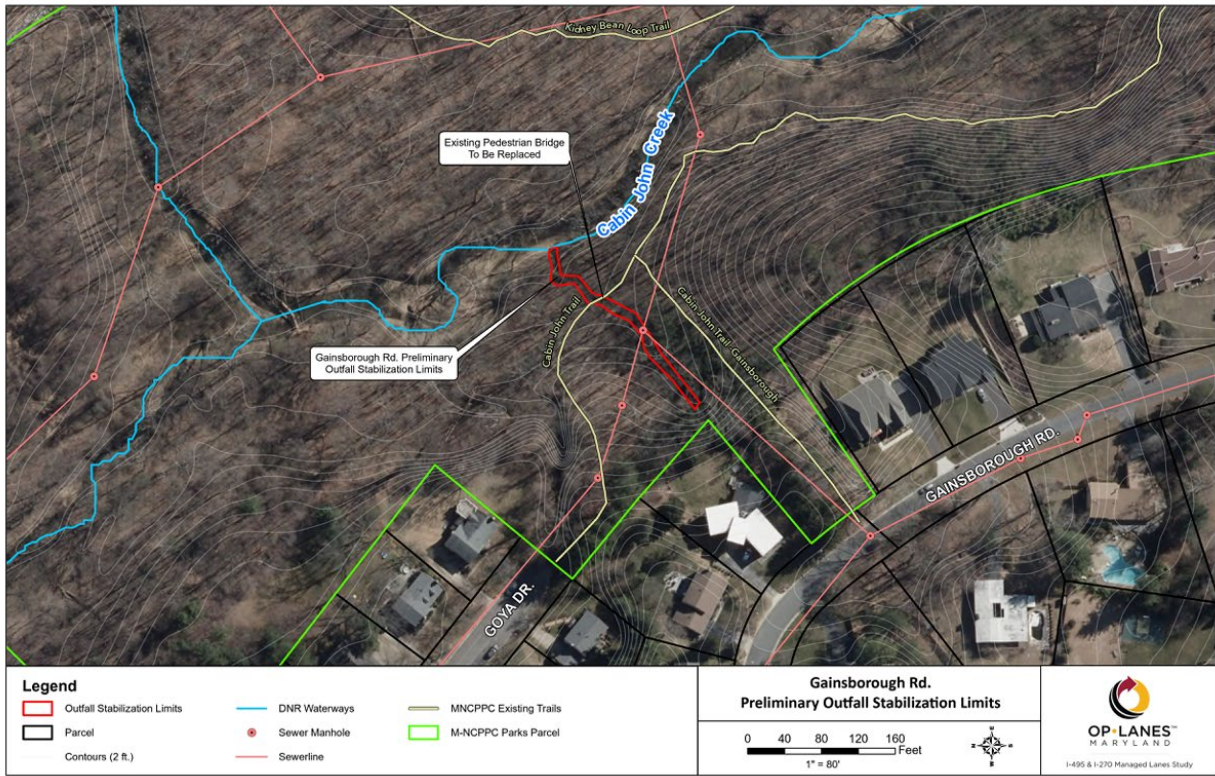


Figure 14. Cabin John Stream Valley Unit 2 Stream Stabilization

