V. SECTION 4(f) EVALUATION

MD 210 MULTI-MODAL STUDY

V. SECTION 4(f) EVALUATION

A. Introduction

Section 4(f) of the Department of Transportation Act, 49 U.S.C. 303 (c), permits the use of land from a significant publicly owned public park, recreation area, wildlife or waterfowl refuge, or historic site (as determined by the officials having jurisdiction over the resource) as part of a federally funded or approved transportation project only if there is no feasible and prudent alternate to the use, and that the proposed action includes all possible planning to minimize harm to the property. This documentation has been prepared in accordance with 23CFR771.135 and is consistent with the criteria for a Section 4(f) Evaluation discussed therein.

This evaluation of impacts to one publicly owned public park, namely Henson Creek Stream Valley Park, is required as a result of proposed improvements to MD 210 that are being studied to relieve congestion and improve safety in the project area.

B. Description of Proposed Action/Purpose and Need

MD 210, also known as Indian Head Highway, connects Washington, D.C. at its northern terminus with the town of Indian Head, in Charles County, approximately 20 miles south of the Prince George's County/Washington, D.C. line. The project area lies within Prince George's County and extends approximately ten miles along MD 210, from I-95/I-495 (the Capital Beltway) to MD 228 (Figure S-1). The following eleven signalized intersections with MD 210 are located in the project area: Oxon Hill Road, Wilson Bridge Drive, Kerby Hill/Livingston Road, Livingston/Palmer Road, Old Fort Road North, Fort Washington Road, Swan Creek/Livingston Road, Old Fort Road South, Farmington Road, MD 373, and MD 228. However, the intersections at Oxon Hill Road and MD 228 are being addressed by other projects and are not included in this study.

The purpose of this study is to improve traffic operations and safety conditions along the segment of MD 210 from the Capital Beltway to MD 228. The need for this project is demonstrated by the peak hour delays and congestion that have become particularly prevalent at the eleven signalized intersections along this segment of MD 210 for through traffic and traffic accessing or crossing MD 210 from the side roads. Nearly half of all traffic accidents on MD 210 between Fort Washington Road and the I-95/I-495 Interchange areas occurred at intersections with the average accident rate being higher (in some instances significantly) than the statewide accident rate average. A more detailed discussion of the purpose and need for the project is provided in Section I of this document.

The SHA has chosen Alternative 5A Modified as the selected alternative to improve traffic operations and safety conditions along MD 210 between the Capital Beltway and MD 228. Alternative 5A Modified would provide six interchanges from Kerby Hill Road to Old Fort Road South, while maintaining the existing three through lanes in each direction (plus auxiliary lanes at the interchanges). Although no HOV lanes would be constructed, the median would be widened to provide the Alternative 5C (concurrent HOV) footprint in the vicinity of the interchanges so as to not preclude additional improvements in the future. Bridge abutments for the side road overpasses would be set consistent with the Alternative 5C footprint, but the mainline lanes would generally coincide with the existing roadway pavement, as feasible, between the interchanges. Where needed, the right-of-way would be preserved through the development review process for the potential additional lane or other improvements in each direction throughout the project area.

Designated bike lanes within the roadway, as well as sidewalks behind the curb, are included with all the proposed overpasses with SHA-Selected Alternative 5A Modified. Bike travel along MD 210 would be accommodated under the SHA-Selected Alternative in the same manner as with current conditions, through various county projects and public information campaigns, north-south bike travel will also be encouraged on parallel county facilities, such as Oxon Hill Road and Livingston Road.

C. Description of 4(f) Resources

All park acreage owned by Maryland National Capital Parks and Planning Commission (M-NCPPC) serves a current or future function of "significance" for passive recreational use, open space, floodplain and stream valley protection, and historic preservation. M-NCPPC has indicated that all of the active recreational components in their developed parks are well used and the land associated with the stream valley parks is extensively used by hikers, on and off trails, and bikers, on trails.

Henson Creek Stream Valley Park (Figure V-1)

Henson Creek Stream Valley Park is located in the northern portion of the study area and is traversed by MD 210 just north of the Palmer Road/Livingston Road intersection. Henson Creek Stream Valley Park is a publicly-owned public park under the jurisdiction of M-NCPPC and is comprised of multiple parcels of land totaling 888 acres according to the Subregion VII Master Plan. The section of park in the vicinity of MD 210 is undeveloped except for Henson Creek Trail. Henson Creek Trail, which is a paved trail, provides a scenic recreational route through Henson Creek Stream Valley Park for hiking, biking, jogging, horseback riding, and in-line skating. M-NCPPC does not record data for the frequency of park

usage. POS funds were utilized in the purchase of several of the parcels and construction of Henson Creek Trail. Any conversion of land acquired or developed under a State grant from Program Open Space requires approval of the Secretary of the Department of Natural Resources, the Secretary of the Department of Budget and Fiscal Planning and the Director of the Department of Planning, and requires replacement with land of at least equivalent area and of equal recreation or open space value.

D. Impacts to 4(f) Property

The SHA-Selected Alternative would not require the acquisition of property from Leyte Drive Neighborhood Park as discussed in the draft section 4(f) evaluation. In addition, there would be no 4(f) use of any of the historic sites identified in the study area as a result of the SHA-Selected Alternative.

Henson Creek Stream Valley Park

Construction of Alternative 5A Modified would require the acquisition of 0.20 acre of undeveloped wooded land from within the park boundary of Henson Creek Stream Valley Park, east of MD 210. Right of way would be required from the park to accommodate the proposed northeast quadrant interchange ramp grading and supporting slopes. Impacts to the trail would not be within the Henson Creek Stream Valley Park. A 450 LF portion of existing Henson Creek Trail, which travels under MD 210, would be reconstructed to accommodate roadside grading and supporting slopes currently used by hikers, bikers, skaters and horseback riders. A new Henson Creek Trail connection would be constructed in the northeast and northwest interchange quadrant for users of the trail to access MD 210 and Palmer/Livingston Road. No temporary use of the park would be required.

E. Avoidance Measures

Henson Creek Stream Valley Park

No-Build Alternative

This alternative consists of routine maintenance and minor construction projects that are not expected to affect roadway capacity or safety and would not address the purpose and need for the project; nonetheless it would not impact 4(f) resources in the study area.

Alternative 5A Modified

Avoidance of the Henson Creek Stream Valley Park could be accomplished by proposing a loop ramp (Interchange Option C, D Figure V-3) in the southeast quadrant in lieu of the northeast quadrant diamond ramp proposed under Option E. The avoidance loop ramp option (C or D) is not prudent because it would displace a daycare business (Day Star Nursery) and have an additional right of way cost of $620,000.

F. Measures to Minimize Harm

1. Minimization of Impacts

Henson Creek Stream Valley Park

No-Build Alternative

This alternative consists of routine maintenance and minor construction projects that are not expected to affect roadway capacity or safety and would not address the purpose and need for the project; nonetheless it would not impact 4(f) resources in the study area.

Alternative 5A Modified

The 0.2 acre grading and woodland impact to Henson Creek Stream Valley Park associated with Alternative 5A Modified could be reduced to 0.04 acre by constructing two retaining walls north and south of the proposed bridge, in combination with a 1.5:1 ratio grading slope along the northeast quadrant diamond ramp. One retaining wall would have a length of 100 linear feet and an average height of 16.5 feet. The second wall would have a length of 250 linear feet with an average height of 8 feet. The costs of the two retaining walls combined would be $596,000. The steepening slopes may require the use of geotextiles to mechanically stabilize the slope. A geotechnical analysis in the final design stage would need to be undertaken to determine if mechanically stabilized embankments are feasible. The minimization is not considered prudent because of cost.

2. Mitigation

The measures proposed by the SHA to mitigate the permanent use of Henson Creek Stream Valley Park include the following:

- SHA will strive for a minimum of 10 feet vertical clearance between the Palmer/Livingston Road to MD 210 North interchange ramp and the trail.

- The reconstructed trail will be designed in consideration of the following:

  - Considerable amounts of silt have been deposited on the trail under the MD 210 Bridge. SHA will clear the silt during construction. In addition, during detailed design, SHA will investigate the sediment transport ability of the channel and crossing through the channel reach where the bridge is located. The ultimate design will use this analysis to maximize the sediment transport of the crossing.

  - M-NCPPC has requested that the trail be reconstructed above the elevation of the 2-year storm and that the vertical clearance between the MD 210 Bridge and the trail be increased if possible. SHA will investigate increasing the vertical clearance from the existing 8 feet while minimizing the siltation and ensuring proper drainage. (SHA recognizes that M-NCPPC prefers 12 to 14 feet of clearance with a preferred minimum of 10 feet.)

  - The existing Henson Creek trail is 8 feet wide. Reconstructed areas of the trail will be 10 feet wide wherever possible.

  - SHA will coordinate with M-NCPPC further regarding the design of the trail during the detailed design stage.

- SHA recognizes that the Henson Creek trail is known to be heavily used. Should trail closures be required during construction, SHA will coordinate with M-NCPPC regarding the possibility of reopening the trail on weekends. In addition, SHA will coordinate with M-NCPPC regarding any necessary trail closures so that M-NCPPC can provide adequate signing or other notification of trail closure schedules.

- Any scuppers currently draining directly onto the trail will be diverted away from the trail.

- Sediment and erosion controls will be implemented prior to construction to minimize sediment runoff into park property and any streams within the vicinity of the park.

G. Coordination

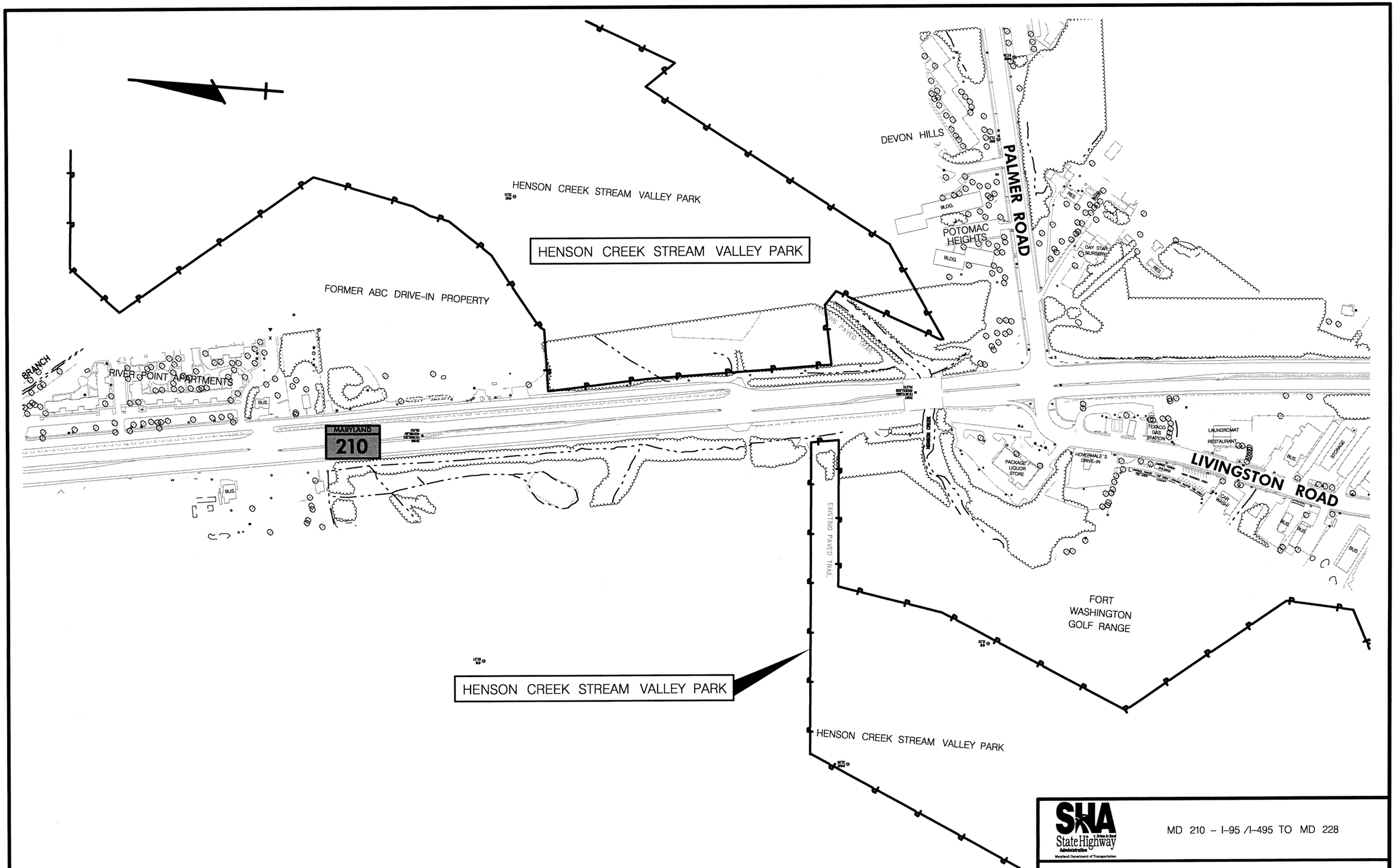
On November 25, 1997, the M-NCPPC provided SHA a description of the Henson Creek Stream Valley Park (VI-340). In May 2004, the M-NCPPC concurred with the minimization and mitigation measures proposed to offset impacts to the Henson Creek Stream Valley Park (VI-346). Coordination will continue with SHA and M-NCPPC as the project progresses through final design and construction.

Coordination will continue with M-NCPPC throughout the design process. All reasonable avoidance and minimization measures have been evaluated in consultation with park representatives.

Section 5-906, Subsection (e) (7) of the Natural Resources Article of the Annotated Code of Maryland states "Land acquired or developed under a State grant from Program Open Space may not be converted, without written approval of the Secretary of the Department of Natural Resources and the Secretary of the Department of State Planning, from outdoor public recreation or open space use to any other use. Any conversion in land use may be approved only after the local governing body replaces the land with land of at least equivalent area and of equal recreation or open space value." In 1988, with the coordination of the Maryland Department of Resources (DNR) and the Maryland Department of Planning (MDP), the SHA established a 13.65 acre land bank with the M-NCPPC against which future Program Open Space acquisitions by the SHA can be credited. The land is currently used by M-NCPPC for the Glenn Dale Community Center. SHA will coordinate with M-NCPPC in final design to ascertain the amount of acreage to subtract from the bank that will be equal to or greater than the appraised monetary value of the land impacted at Henson Creek Stream Valley Park.

H. Conclusion

Based on this evaluation, it has been determined that the SHA-Selected Alternative, Alternative 5A Modified, is the only prudent and feasible alternative that minimizes impacts to Section 4 (f) property and that the proposed action includes all possible planning to minimize harm.



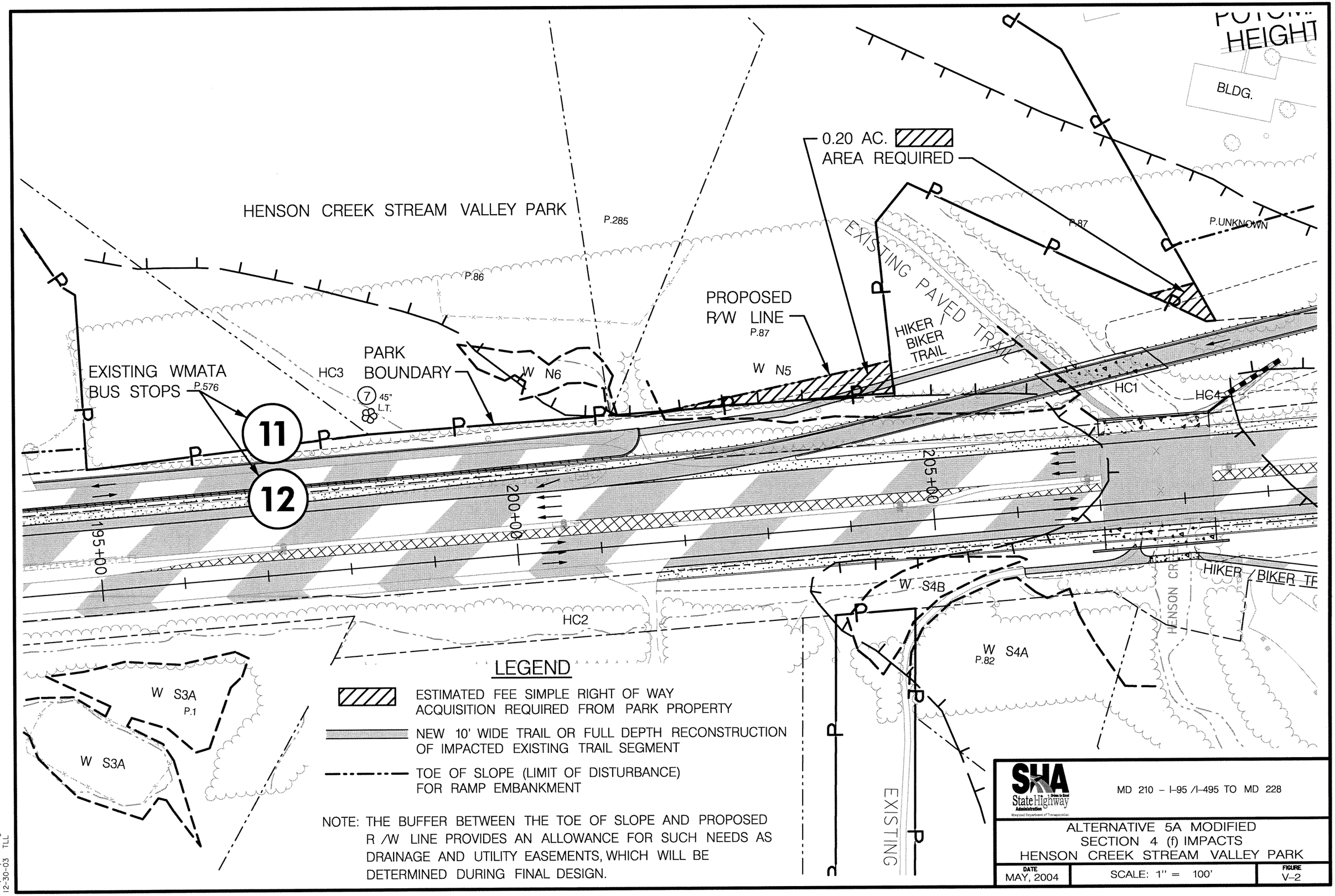
SHA State Highway Administration

MD 210 – I-95 /I-495 TO MD 228

4(f) RESOURCES

DATE	SCALE	FIGURE
MAY, 2004	1" = 300'	V-1

ps02-4f.dgn
04-28-04 TLL

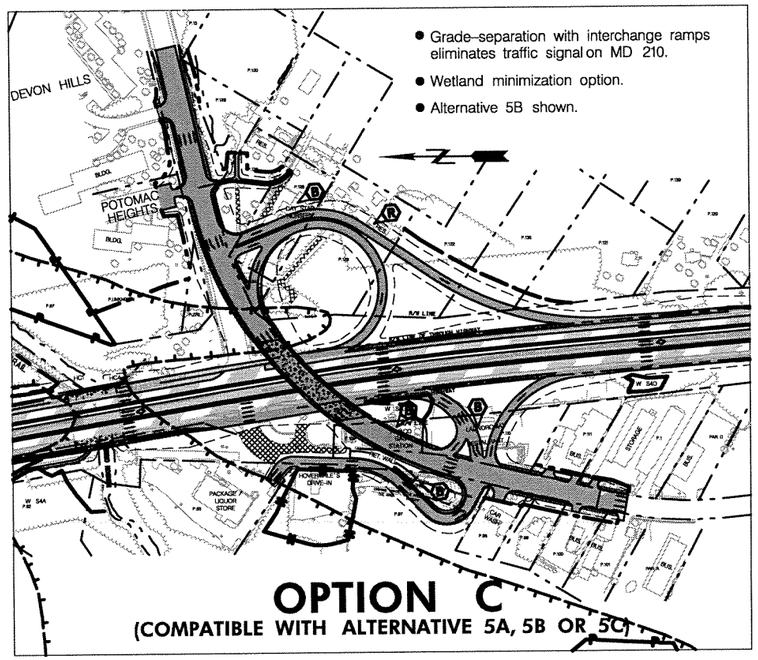


hcp-Impact.dgn
12-30-03 TLL

LEGEND

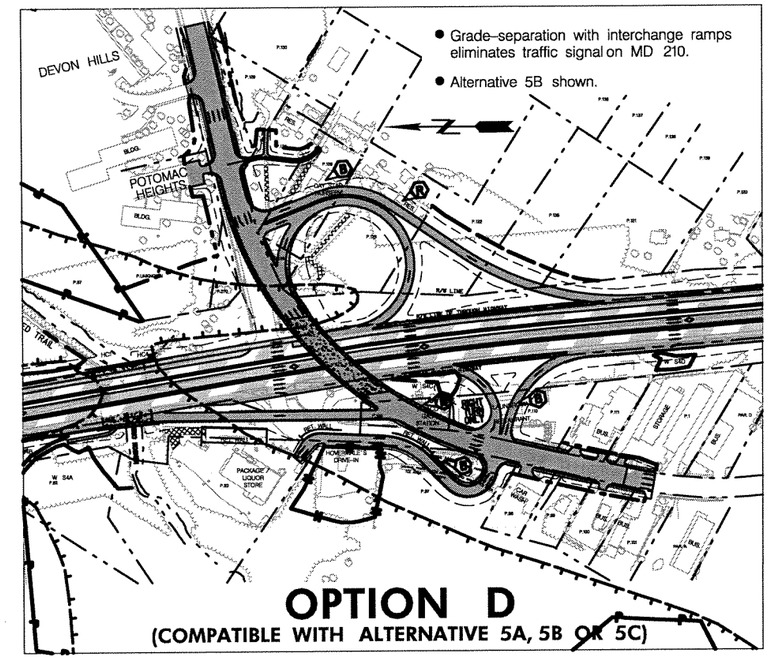
- PROPOSED NEW PAVEMENT AREAS
- PROPOSED RESURFACING
- BRIDGE OVER MD 210
- STREAMS /WATER IMPOUNDMENTS / DRAINAGE CHANNELS
- B OR R — BUSINESS OR RESIDENTIAL DISPLACEMENT
- P — PARKLAND BOUNDARY
- H — HISTORIC BOUNDARY
- PROPOSED GRADING LIMITS
- RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE

LOCATION C – PALMER ROAD / LIVINGSTON ROAD



- Grade-separation with interchange ramps eliminates traffic signal on MD 210.
- Wetland minimization option.
- Alternative 5B shown.

OPTION C
(COMPATIBLE WITH ALTERNATIVE 5A, 5B OR 5C)



- Grade-separation with interchange ramps eliminates traffic signal on MD 210.
- Alternative 5B shown.

OPTION D
(COMPATIBLE WITH ALTERNATIVE 5A, 5B OR 5C)

SHA State Highway Administration — Maryland Department of Transportation

MD 210 – I-95 /I-495 TO MD 228

5A MODIFIED AVOIDANCE OPTIONS

DATE	SCALE	FIGURE
MAY, 2004	SCALE: 1" = NOT TO SCALE	V-3

figurev3avoid.dgn
12-17-03 kld