



Record of Decision

I-270 to US 1



**US Department of Transportation
Federal Highway Administration
Maryland Division**

U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration
Maryland Division

RECORD OF DECISION
Intercounty Connector Project
Montgomery and Prince George's Counties, Maryland

FHWA Maryland Division

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GLOSSARY OF ACRONYMS

ARDS	Alternatives Retained for Detailed Study	PEPCO	Potomac Electric Power Company
CLRP	Constrained Long Range Plan	PFA	Priority Funding Area
CO	Carbon Monoxide	PM 2.5	Fine Particulate Matter
Cpv	Channel Protection Volume	ROD	Record of Decision
DOI	US Department of the Interior	ROW	Right-of-way
DNR	Maryland Department of Natural Resources	SAFETEA-LU	Safe, Accountable, Flexible, and Efficient Transportation Equity Act - A Legacy for Users
DTA	Designated Transportation Area	SHA	Maryland State Highway Administration
EIS	Environmental Impact Statement	SHPO	State Historic Preservation Officer
ELUP	Expert Land Use Panel	SVOC	Semi-volatile compounds
EPA	US Environmental Protection Agency	TIP	Transportation Improvement Program
FEMA	Federal Emergency Management Agency	USACE	US Army Corps of Engineers
FHWA	Federal Highway Administration	VMT	Vehicle Miles Traveled
FIDS	Forest Interior Dwelling Species	WSSC	Washington Suburban Sanitary Commission
FTA	Federal Transit Administration		
HOT	High Occupancy Toll		
HOV	High Occupancy Vehicle		
IAWG	Interagency Working Group		
ICC	Intercounty Connector		
MARC	Maryland Rail Commuter		
MCDEP	Montgomery County Department of Environmental Protection		
MDE	Maryland Department of the Environment		
MdTA	Maryland Transportation Authority		
M-NCPPC	Maryland-National Capital Park and Planning Commission		
MOU	Memorandum of Understanding		
MSAT	Mobile Source Air Toxics		
MVMT	Million Vehicle Miles of Travel		
MWCOG	Metropolitan Washington Council of Governments		
NAAQS	National Ambient Air Quality Standards		
NEPA	National Environmental Policy Act of 1969		
O₃	Ozone		

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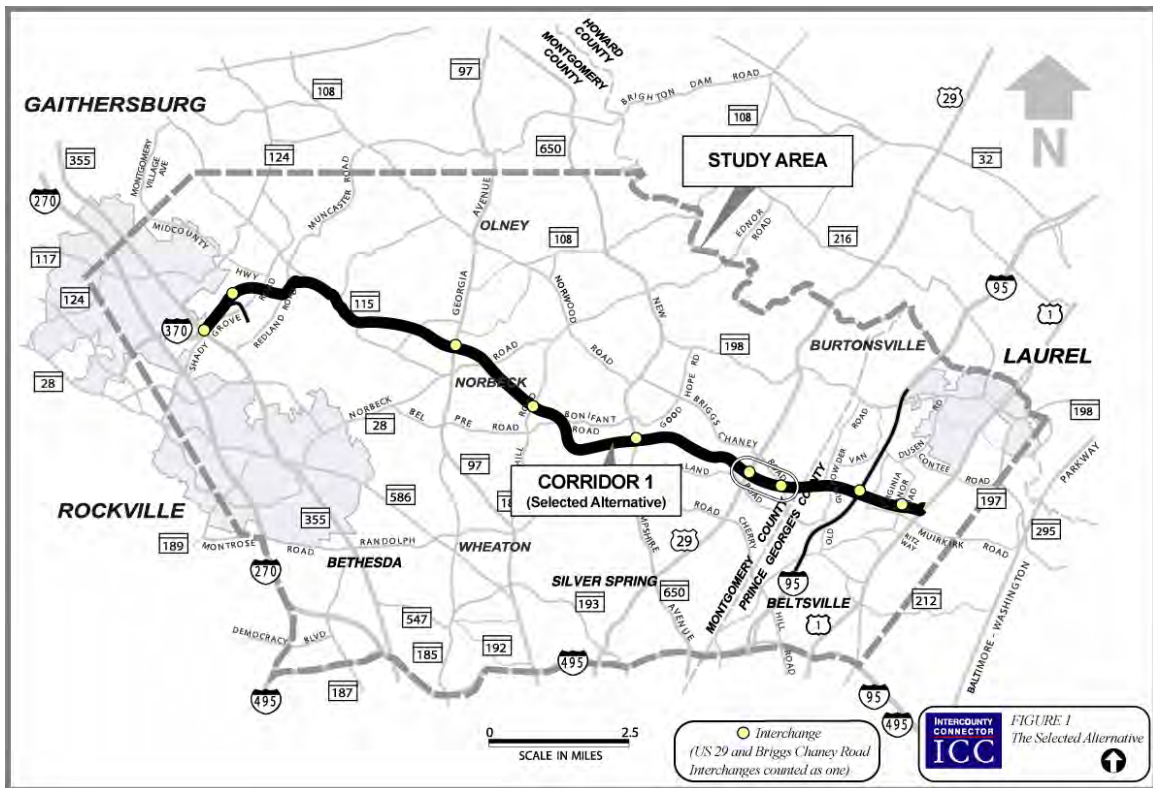
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I. INTRODUCTION AND SUMMARY

This document is the Federal Highway Administration’s (FHWA’s) Record of Decision (ROD) for the proposed Intercounty Connector (ICC) project located in Montgomery and Prince George’s Counties, Maryland. This ROD approves the selection of the preferred alternative (Corridor 1) for the ICC as depicted in *Figure 1* of this ROD and described in *Section VII.D.3* (Pages VII-94 to VII-95) of the Final Environmental Impact Statement/Final Section 4(f) Evaluation (“Final EIS”) issued on January 3, 2006. As set forth in this ROD, the Selected Alternative best serves the purpose and need for this project and is the only feasible and prudent alternative. FHWA will require, Maryland State Highway Administration (SHA), as part of this approval to implement the extensive mitigation features planned for this project and described more fully in this ROD. Indeed, Federal funding for the project is conditioned on the implementation of these features.



The basis for this decision is the information presented in the Final EIS and supporting technical documents; the associated administrative record; and input received from the public and interested local, State and Federal agencies. In making this decision, the FHWA considered the potential impacts of the project and alternative courses of action under the National Environmental Policy Act (NEPA), Section 4(f), and dozens of other laws, balancing the need for safe and efficient transportation with national, State, and local environmental protection goals. FHWA also has a statutory responsibility under 23 U.S.C. 109(h) to reach a project decision that is in the best overall public interest taking into account the need for safe, fast, and efficient transportation, public services, while eliminating or minimizing adverse natural environmental and community effects.

This highway has a long history. Any decision made would be controversial to some members of the community and public officials, due to the difficulty in balancing transportation, environmental, and socio-economic needs. The FHWA's decision to approve the preferred alternative is largely the result of an extraordinary effort by SHA and the Maryland Transportation Authority to avoid, minimize, and mitigate the impacts of the highway. The selected route minimizes potential harm to the natural and human environment wherever possible through engineering modifications made to the proposed highway. Context sensitive-design principles will further minimize harm as the engineers prepare the final design plans and specifications for the highway. A comprehensive mitigation package for the Selected Alternative compensates for unavoidable impacts to the parks and natural resources in the Study Area. A broad program of environmental stewardship activities, above and beyond the required compensatory mitigation, will improve parts of the existing environment negatively impacted by past development. With these wide-ranging mitigation commitments, construction of the

Selected Alternative is in the best overall public interest because the alternative will best satisfy the purpose and need identified for the project, and the environmental impacts are minimized. This ROD explains the rationale and key values that were central to FHWA's decision.

The ROD begins with a summary of the history leading to this decision; followed by a detailed discussion of the actual approval action, including the expected impacts and mitigation measures, plans for monitoring the mitigation commitments, and an overview of the next steps in the project development process. Next, the ROD summarizes the other alternatives that were considered and the reasons as to why they were rejected, including a discussion of comments submitted in response to the EIS. The ROD concludes with a determination that FHWA has complied with Section 4(f) of the Department of Transportation Act.

II. HISTORY OF PROJECT PLANNING AND ENVIRONMENTAL ANALYSIS

An east-west highway across the middle of Montgomery County and into western Prince George's County was first proposed as part of a larger Outer Beltway around Washington, D.C. in the 1950s. Although the concept of an Outer Beltway was dropped, the portion now under study as the ICC has been maintained ever since in local planning documents. See *Sections I.C and I.E.3* (Pages I-3 and I-25 to I-27) of the Final EIS. These planning documents, designed to balance land use, environmental and transportation needs, were continually reviewed and updated by the Maryland National Capital Park and Planning Commission (M-NCPPC) and Montgomery and Prince George's County governments pursuant to extensive public participation processes.

The extent of public debate over the ICC is perhaps best reflected by the fact that the project has been the subject of three separate Federal NEPA studies, only the current of which resulted in the completion of the process to a Final EIS and this ROD. Prior to the current study

process, the FHWA and the SHA published Draft EISs and conducted public hearings in 1983 and again in 1997. Each draft NEPA study attracted a robust public response evidenced by an enormous volume of comments both for and against the proposal, but both times the studies were abandoned due to concerns expressed by the reviewing agencies over potential environmental impacts.

Throughout this long history, virtually every interested party and every agency has agreed on one key point: there is a real need for increased mobility and transportation safety. Just in the decade between 1990 and 2000, the population within the Study Area grew by 27.9 percent. The population is expected to increase by an additional 13.4 percent by 2030. See *Table II-1* (Page II-2) of the Final EIS. The only east-west limited access highway connecting Montgomery and Prince George's Counties is located on the south edge of the Study Area (I-495, also called the "Capital Beltway") and it operates in a congested stop-and-go state much of the day, including on some weekends. Within the Study Area, drivers use narrow local roads not designed for longer east-west trips and therefore experience severe delays along these roads at many key intersections. The existing congestion in the Study Area is expected to worsen by 2030. These current and future transportation needs are discussed in detail in *Section I.E.1* (Pages I-5 to I-22) of the Final EIS.

In September 2002, President George W. Bush issued Executive Order 13274, *Environmental Stewardship and Transportation Infrastructure Project Reviews*, which included the formation of a task force to monitor the progress of selected priority projects and to examine policy issues that promote efficient interagency coordination and improved environmental decision making. Based largely upon a bipartisan recognition of the need for this project, the

ICC was selected by the Secretary of the U.S. Department of Transportation as one of the first nationwide proposals to be monitored by the task force.

The current NEPA study was initiated in June 2003 with public scoping and inter-agency coordination meetings. Pursuant to the Executive Order, the current study focused on early and continuous coordination with 21 pertinent Federal, State and local transportation, environmental, and planning agencies. To that end, the Lead Agencies¹ consulted with the U.S. Environmental Institute for Conflict Resolution for guidance and hired a mediator from the Institute's roster. The mediator acted as a neutral facilitator to assure that each agency's issues and concerns were recognized by the Lead Agencies as well as the other participating agencies. Two interagency sub-groups were established – one at the staff and another at the management level - in an effort to resolve policy issues central to meeting project milestones and key decision making points. The staff-level "Inter-Agency Working Group" convened a total of 37 times, many in all day sessions, in order to work through the issues with the help of the neutral facilitator. This process was successful, and ultimately resulted in this ROD.

In further recognition of the ICC's controversial history, a comprehensive public involvement plan was implemented that offered all interested citizens and organizations an active role in the NEPA process. Following initial public scoping meetings attended by 800 people, all possible steps were taken to work with the affected public and government agencies. The Lead and Cooperating Agencies drafted the project's purpose and need Statement and presented it to the public for comment at a series of workshops attended by 1,200 people. Public input was also solicited on the identification of alternatives, review of the Draft EIS, and review of the Final EIS. Public participation included multiple strategies designed at maximizing public

¹ The Lead Agencies for the current study are the FHWA, the SHA, and the Maryland Transportation Authority. The Cooperating Agencies are the U.S. Environmental Protection Agency (EPA), the U.S. Army Corps of Engineers (USACE), and the Maryland Department of the Environment (MDE).

involvement, including: an interactive project Web site (www.iccstudy.org); open houses and workshops; over 60 informal meetings with community groups and business associations; a project toll-free number; newsletters and publications; bilingual outreach; and four public hearings attended by a total of 1,881 people. See *Section VIII.B* (Pages VIII-9 to VIII-30) of the Final EIS.

There are critical differences in the current ICC study from the earlier studies. A more focused purpose and need was drafted that incorporated Maryland's new Smart Growth Act² and reflected knowledge gained through past and interim transportation and land use studies. These studies demonstrated that a myriad of transportation initiatives are necessary to address the region's complex transportation issues -- no one project can solve these issues. The ICC is not intended by itself to address all region-wide transportation issues. Accordingly, the ICC purpose and need presents more focused concerns within the Study Area. It also introduced homeland security and the concept of environmental stewardship to the purpose and need.

The current EIS included new studies, such as a comprehensive secondary and cumulative effects analysis on possible land use changes; analysis of the proposed project in the context of Maryland's Smart Growth laws; and an economic effects study from the University of Maryland. The Lead Agencies engaged the Federal, State and regional resource agencies in an on-going collaborative review process of issue-spotting and conflict resolution.

Perhaps most importantly, the sustained efforts of the Inter-Agency Working Group led to a substantial mitigation package that all affected agencies agree will compensate for the natural resource and community impacts of the Selected Alternative. Because the previous studies had ended at the Draft EIS stage, the Cooperating and consulting agencies had not previously been presented with, and therefore had never considered, a complete, comprehensive

² Annotated Code of Maryland, State Finance and Procurement Article, Title 5.

package of project mitigation prior to the 2006 Final EIS. The extensive mitigation incorporated into the preferred alternative was the pivotal factor in the Cooperating and consulting agencies' acceptance of the preferred alternative.

III. DECISION

A. Elements of Selected Alternative

1. Selected Alignment and Interchanges

The Selected Alternative (Corridor 1, as identified on Pages VII-94 to VII-95 of the Final EIS and depicted in *Figure 1* in this ROD) extends approximately 18 miles from I-370/I-270 near the Shady Grove Metrorail Station to US 1 between Beltsville and Laurel. Approximately 16 of the 18 miles are located in Montgomery County and approximately two miles are in Prince George's County. The Selected Alternative is a controlled access highway with eight interchanges, located at MD 355, Shady Grove Metrorail Access/Shady Grove Road, MD 97 (Georgia Avenue), MD 182 (Layhill Road), MD 650 (New Hampshire Avenue), US 29/Briggs Chaney Road, I-95 and Virginia Manor Road, as well as an at-grade intersection with US 1. A number of sub-alignment options were evaluated in the Final EIS. Of these options, the Selected Alternative includes Rock Creek Option C - Olde Mill Run Grade Separation, and Northwest Branch Option A.

The Selected Alternative includes associated improvements along intersecting highways in order to accommodate traffic operations. The most extensive of such improvements are the collector-distributor roads along I-95 between the MD 198 and MD 212 interchanges, and access improvements to the Shady Grove Metrorail Station. See *Chapter VII* of the Final EIS for more information.

The Selected Alternative will be a managed highway facility utilizing electronic toll collection at highway speeds. There will be three traffic lanes in each direction between I-370 in Montgomery County and I-95 in Prince George's County, and two traffic lanes in each direction between I-95 and US-1 in Prince George's County. The median width will vary from 26 to 50 feet, with the majority of the corridor having a 36 foot median width. A 50 foot median width was utilized in the Upper Rock Creek and Upper Paint Branch Special Protection Areas to allow for construction of linear stormwater management treatment areas as a measure to minimize harm to the sensitive environmental resources in the Special Protection Areas. The 26 foot median width was used through the Winters Run community in order to minimize impacts to residences on both sides of the narrow transportation corridor running through this neighborhood.

The conceptual plans for the highway and interchanges are depicted on the engineering plates in *Appendix A* of the Final EIS. The conceptual plans will be refined during final design engineering, consistent with this ROD and the commitments herein. No significant increase in environmental impacts is expected during final design engineering, and the impacts may be reduced through ongoing efforts to minimize harm; any change in impacts will be re-evaluated in accordance with 23 CFR Part 771.130.

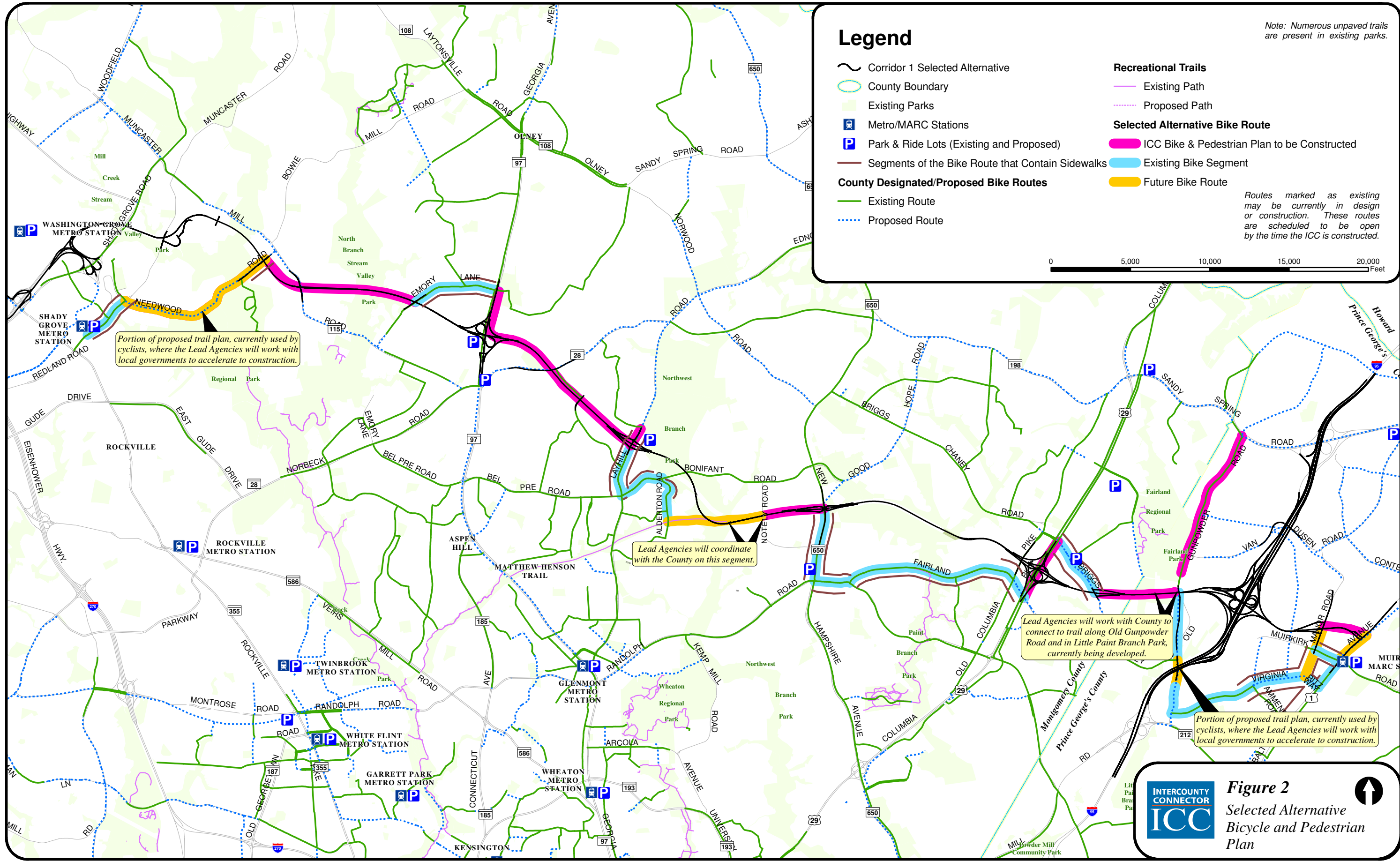
2. Transit Component

There is currently no east-west express bus service across the Study Area. The Final EIS determined that express bus will become feasible if the ICC is constructed because the buses would be able to avoid the congested local roads in the Study Area by traveling on the ICC, which will be managed with tolls to provide high-speed, free-flow traffic conditions. Six representative express bus routes were studied, with service pick-up/drop-offs at major transit

centers such as the existing Shady Grove Metrorail Station. The Final EIS estimated that 11,500 people per day will ride the ICC express buses. See *Section IV.J.4.d* (Pages IV-359 to IV-361) of the Final EIS.

As a result of this modeling, and the multimodal and intermodal opportunities already present in the Study Area, provision of express bus service has been committed to as part of the Selected Alternative. SHA commits to fund capital and/or operational improvements based on the conclusions of a transit service planning study that will be initiated soon after this ROD as part of the Selected Alternative. The Selected Alternative also includes the planned development of new Park-n-Ride lots at the southwest quadrant of ICC/MD 97 and the northeast quadrant of ICC/MD 182. See *Figure 2* in this ROD.

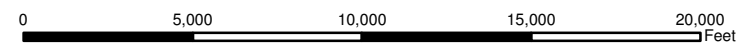
The Selected Alternative includes a budget of \$20 million to fund this transit service planning study and the capital and operational improvements resulting from the transit study. The improvements could include the purchase of additional buses and other equipment, existing park and ride lot improvements (in addition to the new lots being constructed as part of the ICC), and subsidies to Locally Operated Transit Service providers for enhancements to the feeder bus networks. The transit study will be completed before the ICC opens to traffic and will include: a more detailed investigation of the six express bus routes previously identified; additional express and feeder bus routes; appropriate locations for bus stops; the exact size and location of the park-n-ride facilities; and related issues such as analysis of any environmental impacts of the transit component that were not already studied.



Legend

- Corridor 1 Selected Alternative
- County Boundary
- Existing Parks
- Metro/MARC Stations
- Park & Ride Lots (Existing and Proposed)
- Segments of the Bike Route that Contain Sidewalks
- Existing Bike Segment
- Future Bike Route
- Existing Route
- Proposed Route
- Recreational Trails**
 - Existing Path
 - Proposed Path
- Selected Alternative Bike Route**
 - ICC Bike & Pedestrian Plan to be Constructed
 - Existing Bike Segment
 - Future Bike Route

Note: Numerous unpaved trails are present in existing parks.



Portion of proposed trail plan, currently used by cyclists, where the Lead Agencies will work with local governments to accelerate to construction.

Lead Agencies will coordinate with the County on this segment.

Lead Agencies will work with County to connect to trail along Old Gunpowder Road and in Little Paint Branch Park, currently being developed.

Portion of proposed trail plan, currently used by cyclists, where the Lead Agencies will work with local governments to accelerate to construction.



Figure 2
Selected Alternative
Bicycle and Pedestrian
Plan



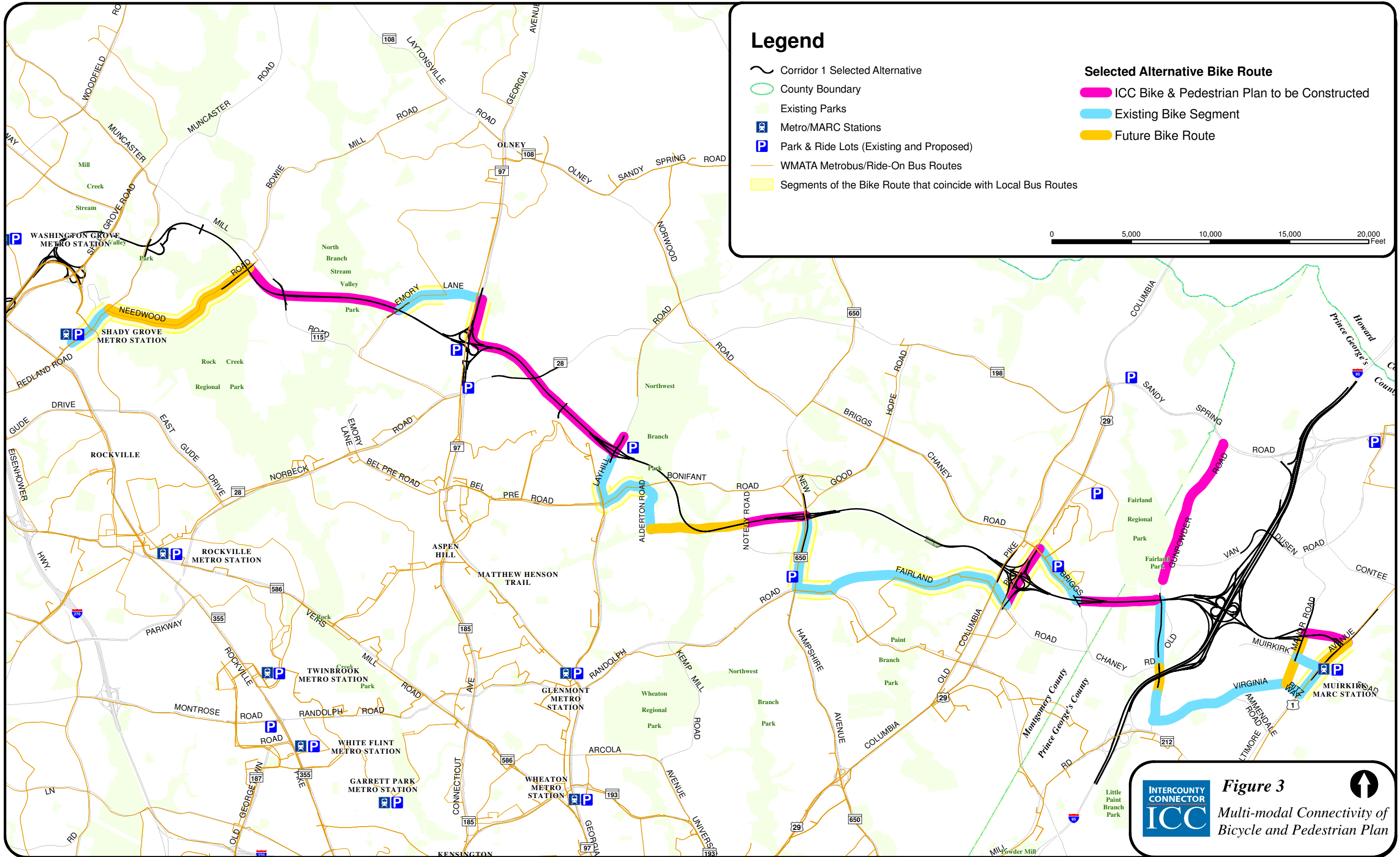
3. Bicycle/Pedestrian Plan

Although the Study Area has a number of existing and planned bicycle facilities, there is no convenient, continuous east-west route across the Area. The Selected Alternative includes the construction of a total of approximately 11.4 miles of new bicycle/pedestrian trails and another 3.0 miles of reconstructed bicycle and pedestrian trails across the Study Area. These new and reconstructed ICC trails will link several existing and planned trails and bike lanes to provide a new, continuous bicycle route across the Study Area. See *Figure 2* in this ROD. Construction of the new trails will be coordinated with County design standards and include lighting at the option of the County governments. Once completed, the ICC bicycle/pedestrian route will accommodate a cyclist's travel from the Shady Grove Metrorail station to the Muirkirk Commuter Rail Station, the entire breadth of the Study Area. There are some segments of the Bicycle/Pedestrian Plan which are still being developed by the counties. The Lead Agencies will continue to coordinate with local governments to advance these segments. However, a continuous east west trip could be made as follows:

Segment	Status of Segment	Selected Alternative Commitment
Begin - Shady Grove Metrorail Station north on Redland Road to Needwood Road	Existing trail	No change proposed
Northeast on Needwood Road to ICC alignment	Existing bicycle usage along Needwood Road. Future bicycle upgrades for Needwood Roads are included in the Upper Rock Creek Area Master Plan (July 2003) and in Montgomery County's Bicycle Master Plan (October 2003)	Lead Agencies are working closely with Montgomery County to accelerate the upgrades to these County planned bicycle routes
East along ICC alignment to Emory Lane	New Trail	New trail to be constructed as part of the Selected Alternative
East along Emory Lane to MD 97 (Georgia Avenue)	Existing trail	No change proposed
South along MD 97 and east along ICC to Layhill Road (MD 182)	New Trail	New trail to be constructed as part of the Selected Alternative
South on Layhill Road to Bel Pre/Bonifant Road	Existing Trail	No change proposed

East on Bonifant Road to New Hampshire Avenue (MD 650)	Existing Trail	Lead Agencies will coordinate with County to tie into the planned Mathew Henson Trail, which is a more direct route than the existing trail
South on MD 650 to Randolph/Fairland Road	Existing Trail	No change proposed
East on Randolph/Fairland Road to US 29	Existing Trail	No change proposed
North on US 29 to Briggs Chaney Road	New Trail	New trail to be constructed as part of the Selected Alternative
East on Briggs Chaney Road to ICC alignment	Existing Trail	No change proposed
East along ICC alignment to Old Gunpowder Road	New Trail	New trail to be constructed as part of the Selected Alternative
South along Old Gunpowder Road to Virginia Manor Road	Existing Trail from ICC alignment to Denim Road. Planned trail in Prince George's County Plans (1990 Subregion I) to Virginia Manor Road	Lead Agencies are working closely with County to accelerate the upgrades to these County planned bicycle routes
East and north along Virginia Manor Road to Muirkirk Road	Existing bicycle usage along Virginia Manor Road. Future planned trail improvements (1990 Subregion 1)	Lead Agencies will coordinate on connections to planned trails
East along Muirkirk Road across US 1 and rail to Muirkirk MARC Station - End	Existing bicycle usage along Virginia Manor Road. Future planned trail improvements (1990 Subregion 1)	Lead Agencies will coordinate on connections to planned trails

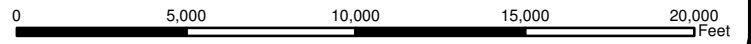
Other important features of the ICC bicycle/pedestrian plan are connections for bicyclists and pedestrians to three transit stations; connections to other non-motorized trail systems; and improved access to bus transit in the Study Area. See *Figure 3* in this ROD. The Shady Grove Metrorail Station on the west end of the project and the Glenmont Metrorail Station in the middle are equipped with bike racks and bike lockers. The bicycle/pedestrian component of the Selected Alternative will provide many people with a new travel mode option for accessing these subway stations by connecting to existing and planned trails leading to the Metro Stations. Similarly, the Selected Alternative will provide improved non-motorized access to the Muirkirk Commuter Rail Station for many people living in the eastern end of the Study Area. The Selected Alternative will also link the ICC bicycle/pedestrian route to twelve existing trails and



Legend

- Corridor 1 Selected Alternative
- County Boundary
- Existing Parks
- Metro/MARC Stations
- Park & Ride Lots (Existing and Proposed)
- WMATA Metrobus/Ride-On Bus Routes
- Segments of the Bike Route that coincide with Local Bus Routes

- #### Selected Alternative Bike Route
- ICC Bike & Pedestrian Plan to be Constructed
 - Existing Bike Segment
 - Future Bike Route



INTERCOUNTY CONNECTOR
ICC
Figure 3
 Multi-modal Connectivity of
 Bicycle and Pedestrian Plan



seven planned trails within the Study Area. For example, the ICC bicycle/pedestrian plan will connect the ICC route to the Rock Creek Trail System that extends 25 miles south to the National Mall in Washington, D.C.

The final element of the ICC's bicycle/pedestrian plan is to improve access to bus transit for bicyclists within the Study Area. The Selected Alternative bicycle plan coincides with more than ten miles of bus routes. The county and regional bus services operating on those routes provide free bike carriers on all the buses in the Study Area. The bus systems also serve six park-n-ride facilities convenient to the ICC bike plan. The Selected Alternative includes provision of new bicycle racks at both the existing park-n-ride facilities and those to be constructed as part of the ICC project.

4. Environmental Stewardship

The Lead Agencies' commitment to environmental stewardship can be observed at various levels throughout the project. At the broadest level, environmental stewardship refers to an overall goal of environmental enhancement, protection, and improvement of natural, community and cultural resources. This environmental stewardship approach has guided the project at numerous decision points and will continue to guide the final design engineering of the Selected Alternative.

On a more focused level, environmental stewardship is an innovative component of the ICC that will actually improve aspects of the existing environment in the Study Area. The Selected Alternative includes 63 environmental stewardship activities that will address environmental stresses caused by past development in the area. This is above and beyond the measures that are required to mitigate the impacts of the Selected Alternative. Environmental

stewardship is an element of the ICC's purpose and need Statement. See *Section I.B.4* (Page I-2) of the Final EIS.

The environmental stewardship activities proposed as part of the Selected Alternative are listed in *Attachment A* of this ROD. The proposed activities address concerns in two general areas: watershed resources and community facilities. The proposed environmental stewardship activities were selected from a list of 970 possible projects to reflect priorities identified through coordination with the Federal, State and local agencies and the public. The selection process is described in *Section VI.C.1* (Pages VI-9 to VI-10) of the Final EIS. The 63 activities proposed are environmentally beneficial and will address a wide range of issues, including: retrofitting obsolete and polluting stormwater management systems, renovation of historic buildings, construction of bike paths, and major stream restorations. One proposed environmental stewardship activity, for example, is to retrofit a U.S. Department of Agriculture property in Prince George's County with a new stormwater management system featuring current technology. This project will treat and improve agricultural runoff from 330 acres of land that adversely impacts water quality in Indian Creek, which is a tributary of the Anacostia River.

While the Selected Alternative includes construction of the entire list of proposed environmental stewardship activities, these projects have not yet been developed in detail. Development of each project will include environmental evaluations³, construction plans, and cost estimates for both right-of-way and construction. If a particular activity is found to be infeasible or undesirable once the more detailed project plans are developed for the activity, then a back-up environmental stewardship activity will be substituted after consultation and input

³ The environmental evaluations will address: right-of-way clearance and acquisition; Section 4(f) applicability and, if necessary, approval; cultural resources investigation and coordination; hazardous materials investigation; wetlands and waterways assessment; rare, threatened or endangered species assessment and coordination; terrestrial and habitat investigation; an assessment of constructability, and permit conditions.

from the Inter-agency Working Group. The back-up Environmental Stewardship activities are also designated in *Attachment A*. The selected back-up activity would then be developed in detail with the same environmental and technical analysis as was completed for the originally-proposed activity.

5. Context-Sensitive Design

Context-sensitive design means using roadway design criteria that promote sensitivity to the surrounding social, cultural and natural environment affected by the ICC for both the highway and bridge facilities. Context-sensitive design is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility. Context-sensitive design considers the total context within which a transportation improvement project will exist.

The Lead Agencies' commitment to context-sensitive design has been incorporated into the concepts developed during the planning process and is reflected in a series of engineering evaluations and decisions that have successfully avoided and minimized many environmental and community impacts. These measures to minimize the effects to visual and aesthetic quality include: variable median widths to reduce the roadway footprint; steeper side slopes to minimize impacts to adjacent parkland and communities; enhanced landscaping; a lower roadway profile by building the road as close to existing ground, or below ground level where practicable, to reduce visual impacts to adjacent communities; shifting alignments to avoid communities and sensitive resources; avoiding parallel stream crossings; longer bridges; and landscaping concepts that blend with the areas adjacent to the roadway.

Efforts to incorporate context-sensitive design solutions will continue as the project design is further refined. During the early stages of planning, aesthetic guidelines were drafted to better understand ways to promote visual continuity throughout the corridor and context sensitive design solutions. The guidelines will be reflected in the contract specifications for the construction documents. For example, all roads that will cross over the ICC will have similar treatments for aesthetics (parapet finishes, fencing, color, steel girders, etc). Another example is that certain interchanges will be identified as community gateways, which are intended to introduce travelers into the area into which they are entering. These gateways will require specific types of landscape treatments to help provide visual cues that you are entering a specific area along the ICC. Some additional efforts will include, but not be limited to: providing visual buffering and ornamental enhancements to adjacent neighborhoods; use of decorative finishes on publicly visible highway features and structures in keeping with surrounding physical settings and overall highway theme; providing reforestation plantings adjacent to existing forest tracts using native species; limiting hardscape elements (retaining walls, overpasses, box culverts, rising structures, etc.) to necessary areas only, to accommodate environmental avoidance, minimization and stewardship practices; using rustic finishes on hardscape elements in publicly visible areas; development of limits of disturbance based on slope requirements; use of retaining walls with finishes that fit within sensitive areas; and coordination with adjacent property owners on potential areas for additional landscaping berms to provide screening.

6. Environmental Oversight

Environment oversight will be provided through a stringent environmental management plan featuring redundant levels of review to ensure that the avoidance, minimization, mitigation and environmental stewardship efforts to which FHWA has committed through this ROD are

realized during the design, construction and monitoring of the Selected Alternative. The environmental management team – specially created by the Lead Agencies for the ICC - will implement the environmental management plan. Key elements of the plan include:

- **Establishment of an environmental oversight Memorandum of Understanding (MOU) among the relevant Federal, State, and local agencies prior to the start of final design engineering.** The environmental oversight MOU will address the details of coordination, monitoring, and enforcement of the commitments during the final design period through the completion of construction.
- **Creation and management of a ROD/permit commitment tracking database.**
- **Designation of an environmental design review team, an environmental construction inspection team, and a mitigation/stewardship implementation team.** The environmental design review team will coordinate design reviews and permit modification issues with the environmental permitting agencies. A full-time, on-site, dedicated environmental construction inspection team will be provided to ensure that project commitments and conditions are adhered to on a day-to-day basis during construction. As part of this effort, the inspectors will produce weekly and quarterly reports and ratings to document compliance on all highway, bridge, utility and mitigation/stewardship construction. The mitigation/stewardship team will provide a redundant level of review to ensure that the project commitments and conditions are adhered to during construction of the mitigation and stewardship sites. The environmental oversight responsibilities of each of these parties are discussed in detail in *Section VII.D.5.A* (Pages VII-96 to VII-99) of the Final EIS, and will be included in the environmental oversight MOU.
- **Hiring of an independent environmental monitor who will provide quality assurance services and report directly to and make recommendations to the regulatory and Lead Agencies.**
- **Utilize contract specifications and administrative measures to assist the Lead Agencies in ensuring that construction impacts are minimized.** First, a general engineering consulting firm will be retained to coordinate all contract sections. This firm will be required to have experienced environmental compliance staff. Second, the design-build engineering team will also be required to employ environmental staff. Third, the contractor selection criteria will be structured to reward firms with a history of environmental permit compliance. Lastly, the contracts will include incentives to encourage the contractors to exceed permit compliance specifications.

The FHWA is confident that the environmental oversight plan outlined above for the Selected Alternative will be successful. Similar plans have worked effectively on Maryland's

Woodrow Wilson Bridge replacement project and its design-build US 113 Project. The U.S. Department of the Interior (DOI) agreed, stating in its comments “We believe that this environmental compliance process will provide added assurance that this highway will be constructed in an environmentally acceptable manner.” See page 9, letter of 2/24/06, included in *Attachment B* to this ROD.

7. Post-Final EIS Refinements Included in the Selected Alternative

Since publication of the Final EIS in January 2006, refinements to the preferred alternative have continued to be evaluated and incorporated into the project in response to suggestions by Federal, State, and local agencies and the public. These refinements are small-scale modifications to the project’s design. A total of 51 such changes were adopted in a process consistent with normal highway project development. The refinements will either enhance safety, further minimize environmental or community impacts, and/or address localized public or agency concerns about some particular aspect of the Selected Alternative. Similar refinements will continue to be studied and, if warranted, adopted as part of the final design of the highway.

The design refinements, which are listed in *Attachment C*, were carefully scrutinized to: identify any additional impacts to wetlands; streams; parks; specimen trees; forests; rare, threatened or endangered species; community impacts; impacts to historic resources; noise impacts; air quality impacts; residential and commercial displacements; and costs. The refinements that were adopted do not result in additional significant environmental impacts alone or in combination, nor do they alter any conclusions reached in the Final EIS or this ROD. All of the refinements have been coordinated with the relevant Federal, State, and local agencies.

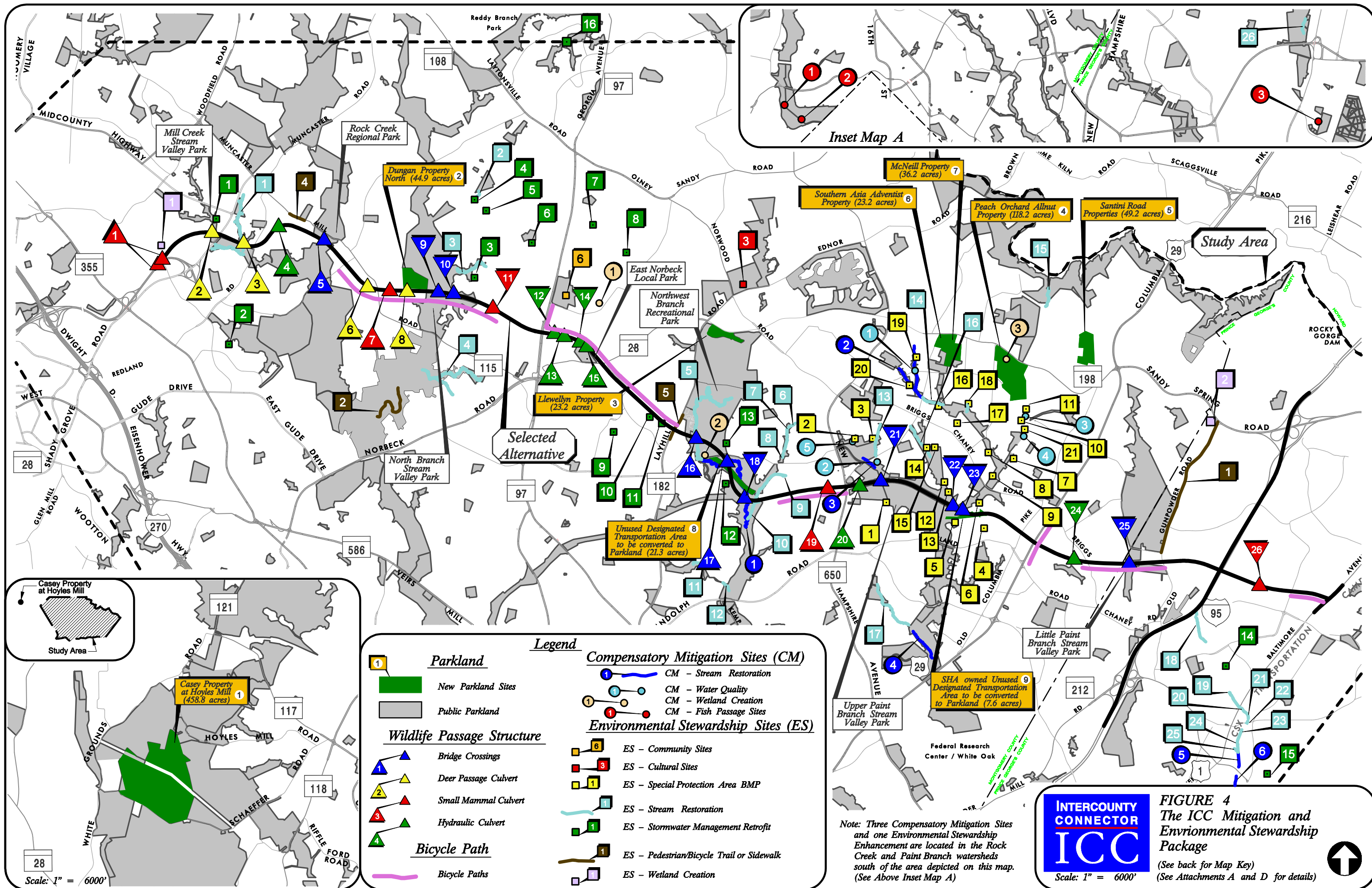
B. Mitigation Package

In recognition of the important resources that will be affected by the construction of the ICC, a comprehensive \$370 million package of mitigation and stewardship activities is part of the Selected Alternative. The mitigation package is appended to this ROD as *Attachment D*. For example, the package includes 20,700 linear feet of stream restorations; three fish blockage removal projects that restores 1,500 linear feet of stream; creation of 83 acres of wetlands; 25 wildlife passage improvements; 776.6 acres of new parkland; and seven reforestation sites. The geographic location of each component is depicted in *Figure 4*. This map shows not only the extent of mitigation planned, but also illustrates that the mitigation package is concentrated within the areas most impacted by Selected Alternative. These activities will benefit the parks, resources and communities impacted by the project.

The commitments related to the mitigation package are included in the Summary List of Project Commitments appended to this ROD as *Attachment E*. These commitments will be monitored and enforced through the environmental oversight plan described on pages 17 to 19 of this ROD. The elements of the mitigation package and project commitments are described further below.

1. Design Modifications and Commitments

Specifically, the entire project is being designed to avoid and minimize adverse impacts to wetlands and streams and to mitigate for potential stormwater runoff in and around the water resources outlined in the Final EIS. SHA commits to modify stream and wetland crossings by re-routing the Selected Alternative around identified sensitive resources. Longer bridge lengths have been incorporated into the project design to avoid placing construction materials directly into water resources and to permit more substantial clearance for wildlife and vegetation. The



Note: Three Compensatory Mitigation Sites and one Environmental Stewardship Enhancement are located in the Rock Creek and Paint Branch watersheds south of the area depicted on this map. (See Above Inset Map A)

INTERCOUNTY CONNECTOR
ICC
 Scale: 1" = 6000'

FIGURE 4
 The ICC Mitigation and Environmental Stewardship Package
 (See back for Map Key)
 (See Attachments A and D for details)

ICC Mitigation and Environmental Stewardship Package (Figure 4) Map Key

Map ID	Site ID	Description	Map ID	Site ID	Description	Map ID	Site ID	Description
Compensatory Mitigation - Stream Restoration Sites			25	Sta.880	Bridge crossing located south of Greencastle Road	3	NB-11	Landscape existing wet pond and repair rip-rap apron within 56 acres on M-NCPPC property west of Custis Drive and north of Penforest Way
1	NW-160	11,000 LF located on the mainstem of Northwest Branch from Bonifant Rd downstream to Indian Springs Golf Course	26	Sta.978	Small mammal culvert located east of I-95	4	NB-7	Convert the existing dry pond to extended detention with micropool within 274 acres east of Cashell Road
2	PB-8	1,200 LF located in the Left Fork subwatershed of the Upper Paint Branch watershed	New Parkland			5	NB-6	Convert the existing dry pond to provide extended detention with micropool within 234 acres at the north end of Hines Road and south of MacDuff Avenue
3	PB-119	1,000 LF located on the mainstem of Good Hope tributary to Paint Branch	1	N/A	Casey Property at Hoyles Mill - Additional mitigation for natural resources in Rock Creek Regional Park to be provided at the Casey Property at Hoyles Mill	6	NB-16	Retrofit an existing dry pond to provide 1-year extended detention and expansion of existing wetlands within 192 acres on the Cherrywood tributary to North Branch Rock Creek
4	PB-12B	4,500 LF located on Hollywood Branch flowing southeasterly under Laurie Dr to the Fairview Estates community	2	N/A	Dungan Property - provide additional use of Rock Creek Regional Park, Mill Creek Stream Valley Park and North Branch Stream Valley Park	7	NW-47	Reconfigure outfall from existing pond within 38 acres north of Old Baltimore Road
5	IC-59	1,100 LF located on the mainstem of Indian Creek just upstream of the Powder Mill Rd crossing	3	N/A	Llewellyn Property - provide additional use of Layhill Local Park and Northwest Branch Recreational Park	8	NW-133	Attenuate flows to extent possible within 30 acres from Old Cambridge Road at the east end of Covered Wagon Way
6	IC-62	1,900 LF located on the mainstem of Indian Creek just downstream of the Powder Mill Rd crossing	4	N/A	Peach Orchard Allnut Property - provide additional use for Northwest Branch Recreational Park, Northwest Branch Stream Valley Park - Unit 5 and Upper Paint Branch Stream Valley Park	9	NW-29	Replace embankment (new pond), create a large wet pond with extended detention and wetland within 768 acres of Bel Pre Creek east of Aquarius Avenue
Compensatory Mitigation - Water Quality Sites			5	N/A	Santini Road Property - to protect undeveloped land in the Rocky Gorge watershed	10	NW-40	Reconfigure the existing pond to include wetlands and extended detention within 55 acres north of London Bridge Drive, south of Shamrock Ridge Road and west of Wimbledon Drive
1	PB-49	Construct a new dry extended detention pond to capture uncontrolled runoff from tributary north of Rainbow Drive, east of Wembrough Street and west of Langside Street	6	N/A	Southern Asia Adventist Property - provide additional use for Northwest Branch Recreational Park, Northwest Branch Stream Valley Park - Unit 5 and Upper Paint Branch Stream Valley Park	11	NW-32	Provide flow attenuation for frequent storms within 16 acres in Longmead Community, east of Travert Way and west of Carriage Square Drive
2	PB-33	Provide extended detention and stabilization of an outfall channel in the Great Hope Manor community, adjacent to the Right Fork at Good Hope Road and Good Hope Drive	7	N/A	McNeill Property - provide additional use for Northwest Branch Recreational Park, Northwest Branch Stream Valley Park - Unit 5 and Upper Paint Branch Stream Valley Park	12	NW-39	Reconfigure existing dry pond to include wetlands and extended detention within 26 acres located east of Long Green Drive
3	PB-43	Retrofit an existing outfall channel with grass swale, biofilter, or infiltration trench east of Timberlake Drive and Seibel Drive	8	N/A	Unused Designated Transportation Area - would protect land adjacent to the existing park	13	NW-35	Provide opportunity for wetland establishment and possibly extended detention within 31 acres golf course within Naples Manor Community, west of Jaystone Drive and Cutstone Way
4	PB-46A	Convert a dry extended detention pond west end of Perrywood Road	9	N/A	SHA Owned Unused Designated Transportation Area - transferred to M-NCPPC for incorporation into the park, which includes forests, wetlands, streams, and FIDS habitat	14	IC-27	Retrofit facility to provide 24-hour extended detention of the 1-year storm frequency within 1,200 acres at a County-owned regional qualitative SWM facility located south of Virginia Manor Road and east of Trolley Lane
5	PB-114A	Plan and construct an off-line extended detention facility at the south end of Eastway Drive in Peachwood Park	Environmental Stewardship - Community Sites			15	IC-84	Construct biofiltration areas and SWM wetlands within 330 acres of the USDA-BARC East Farm
Compensatory Mitigation - Wetland Creation Sites			6	52A	One acre dog exercise area in Olney Manor Recreation Park	16	PR-257	Retrofit existing facility to reduce peak discharges of frequent events within 493 acres north of Treadway Road in Reddy Branch Park
1	NW-69	Located on the north side of Batchellors Forest Road across from Trotters Glen Golf Course in the headwaters of Batchellors Run	Environmental Stewardship - Cultural Sites			Environmental Stewardship - Stream Restoration Sites		
2	NW-128	Currently a ball field located in Northwest Branch Recreational Park	3	2	Provide improvements to the Woodlawn Barn	1	RC-2	2,400 LF in the headwaters tributary to Mill Creek flowing southerly between Mill Run Drive under Founders Mill Drive to the end of the cul-de-sac
3	PB-1	Located on the south side of Spencerville Road and east of Peach Orchard Road along a tributary to Paint Branch	Environmental Stewardship - Pedestrian/Bicycle Trail or Sidewalk Site			2	NB-2C	4,900 LF part of Williamsburg Run and is located approximately north of Gallagher Way
Compensatory Mitigation - Fish Passage Sites			1	16	14,500 LF to provide Class I trail and paved shoulders along Old Gunpowder Road from MD 198 to Greencastle Road	3	NB-1	2,800 LF located in Norbeck Meadows Park/North Branch Stream Valley Park in Norbeck Estates community
1	RC-131A	Located east of Beach Drive in the Candy Cane Park section of Rock Creek Park	2	33	10,000 LF located at Lake Frank once opened to vehicle traffic	4	NB-3	4,000 LF 2 reaches, one on the mainstem of Manor Run and second on private property in Flower Valley Community
2	RC-131	Located east of the intersection of Beach Drive and Pinehurst Parkway on the mainstem of Rock Creek within Rock Creek Park	4	S-1	2,000 LF of sidewalks on the south side of MD 115 from Applewood Lane to crosswalk at Olde Mill Run to the school	5	NW-170	5,000 LF along mainstem of Northwest Branch from southern boundary of Northwest Branch Golf Course downstream to Bonifant Road
3	PB-93A	Located at an exposed sewer line between US 1 and the College Park Airport	5	50	2,000 LF of Class 1 pedestrian/bicycle trail along Layhill Road near Park Vista Drive	6	NW-51	300 LF in headwaters of Rolling Stone Tributary south of Stonegate Drive and Watergate Road in Stonegate Community
Wildlife Passage Structures			Environmental Stewardship - Special Protection Area Best Management Practices			7	NW-50	1,000 LF in headwaters of Rolling Stone Tributary south of Stonegate Drive and Watergate Road in Stonegate Community
1	I-370	Small mammal culverts located west of Shady Grove Road	1	PB-113	Construct multiple areas to retain stormwater runoff within 63 acres of the Colesville Farms Estates development	8	NW-49	1,700 LF in headwaters of Rolling Stone Tributary south of Stonegate Drive and Watergate Road in Stonegate Community
2	Sta.150	Deer culvert located west of Shady Grove Road	2	PB-114	Reconstruct existing grassy swales to provide bioretention areas within 44.3 acres of the Peachwood development	9	NW-52	1,400 LF in a tributary to the Rolling Stone Tributary west of Notley Road, north of Cricket Lane, south of Nova Court
3	Sta.173	Deer culvert located west of Redland Road	3	PB-115		10	NW-4	3,800 LF channelized portion of lower Rolling Stone Tributary located within Northwest Branch Park
4	Sta.207	Hydraulic culvert located north of Garrett Road	4	PB-116	Construct micro-scale projects such as bioretention areas along grassy swales and a possible bioretention area within 100.3 acres of the Fairland Estates development	11	NW-113	2,800 LF located upstream of NW-112 on Bel Pre Creek within Northwest Branch Park, north of Osterport Drive
5	Sta.240	Bridge crossing located northwest of Needwood Road and northeast of Garrett Road	5	PB-117		12	NW-102	1,500 LF located on Bel Pre Creek at the confluence w/ Northwest Branch, north of intersection Randolph Road and Kemp Mill Road
6	Sta.276	Deer culvert located southwest of Muncaster Mill Road	6	PB-118	Construct a bioretention area within 51.4 acres of the Countryside development	13	PB-109	2,500 LF in headwaters of Good Hope tributary in the Upper Paint Branch watershed
7	Sta.301	Small mammal culvert located east of Muncaster Mill Road	7	PB-119	Treat uncontrolled drainage area within 19.6 acres of the the Fairland Farms development	14	PB-108	2,400 LF located in the Left Fork subwatershed of the Upper Paint Branch watershed
8	Sta.312	Deer culvert located east of Muncaster Mill Road	8	PB-120	Construct an under-street/bioretention storage combination within 14.4 acres of the Fairland Acres development	15	PR-61	600 LF located in the Oursler Road Tributary subwatershed, a tributary to the Rocky Gorge Reservoir
9	Sta.320	Bridge crossing located northwest of Promontory Court	9	PB-121		16	PB-37	2,700 LF located in the headwaters of the Upper Gum Springs between Good Hope Road and Fireside Drive
10	Sta.327	Bridge crossing located north of Promontory Court	10	PB-122	Reconstruct existing grassy swales to provide bioretention areas within 64.7 acres of Peach Orchard Heights development	17	PB-12B	2,000 LF located on Hollywood Branch and flows southeasterly from Cannon Drive to Laurie Drive
11	Sta.360	Small mammal culvert located east of Emory Lane	11	PB-123		18	IC-43	1,000 LF located along Indian Creek south and east of a box culvert under I-95 between MD 212 and MD 198
12	Sta.415	Hydraulic culvert located east of Georgia Avenue	12	PB-124	Reconstruct existing grassy swales to provide bioretention areas within 57.6 acres of the Gum Springs Farm development	19	IC-48	1,300 LF located upstream of US 1 and north of Hightview Ave in the Belsville Heights community
13	Sta.420	Hydraulic culvert located east of Georgia Avenue	13	PB-125		20	IC-49	500 LF located on Indian Creek mainstem east of US 1 and north of Sycamore Road
14	Sta.433	Hydraulic culvert located south of Trotters Glen Golf Course	14	PB-126	Reconstruct existing grassy swales to provide bioretention areas within 16.6 acres of the Sequoia development	21	IC-50	500 LF located on the mainstem of Indian Creek downstream of East Maple Avenue
15	Sta.435	Hydraulic culvert located south of Trotters Glen Golf Course	15	PB-127		22	IC-51	300 LF located on the mainstem of Indian Creek upstream of the channel in the vicinity of Odell Road crossing
16	Sta.533	Bridge crossing located northwest of Bonifant Road	16	PB-128	Reconstruct existing grassy swales to provide bioretention areas within 21.6 acres of the Maydale development	23	IC-58	1,100 LF located on Indian Creek mainstem north of Old Baltimore Pike, east of Frederick Avenue and west of Somerset Avenue
17	Sta.555	Bridge crossing located over Bonifant Road	17	PB-129		24	IC-57	600 LF located on the Indian Creek mainstem of Old Baltimore Pike in Indian Creek Village community
18	Sta.595	Bridge crossing located south of Bonifant Road	18	PB-130	Construct an inline bioretention area within 74 acres of the Good Hope Estates development	25	IC-56	400 LF in a tributary to Indian Creek mainstem east of Old Baltimore Pike, north of Talbot Avenue and south of Maryland Avenue East
19	Sta.654	Small mammal culvert located west of New Hampshire Avenue	19	PB-131	Reconstruct existing grassy swales to provide bioretention areas within 12 acres of the Colesville Heights development	26	PB-85	1,200 LF southerly flow reach of the Paint Branch mainstem beginning downstream with Little Paint Branch west of Autoville Drive
20	Sta.673	Hydraulic culvert located east of MD 650	20	PB-132		Environmental Stewardship - Wetland Creation Sites		
21	Sta.690	Bridge crossing located east of Cape May Road	21	PB-133	Reconstruct existing grassy swales to provide bioretention areas within 80.1 acres of the Perrywood Estates development	1	RC-36	3 acres located north of I-370 across from Crabbs Branch Way near Washington Grove
22	Sta.740	Bridge crossing located southwest of Crest Hill Lane	Environmental Stewardship - Stormwater Management Retrofit Sites			2	LP-17	2 acres located in southwest corner of MD 198 and Old Gunpowder Road within headwaters of Little Paint Branch
23	Sta.750	Bridge crossing located southeast of Crest Hill lane	1	RC-26	Retrofit the existing pond to attenuate small storm flows within 538 acres located upstream from Epsilon Drive			
24	Sta.839	Hydraulic culvert located east of US 29	2	RC-74	Convert dry pond to extended detention marsh within 79 acres on M-NCPPC property at the end of Buena Vista Drive in Crabbs Branch Park			

footprint of the road itself has been minimized and variable median widths have been proposed to reduce to an absolute minimum the use of the highway right-of-way. In many instances, the road will be built with a lower profile than typically considered in order to mitigate noise and visual impacts to adjacent residences or communities. These types of design measures will continue to be incorporated during final design engineering. Commitments related to engineering are listed at numbers 1-90 of *Attachment E* to this ROD.

2. Stormwater Management and Mitigation

Stormwater Management (SWM) is a priority element of the ICC project. SWM is a term used to describe actions taken to mitigate the effects of changed land use on stormwater runoff. The purpose of SWM is to mimic preconstruction hydrology (surface and groundwater distribution of rainfall) and improve quality of stormwater runoff through implementation of Best Management Practices (BMPs). SWM is regulated by MDE. SWM is divided into three parts: quality control, groundwater recharge and quantity control. Quality control is achieved through implementing BMPs that provide settling time, uptake, or filtration of runoff to remove pollutant constituents. Groundwater recharge is provided by maximizing contact between surface runoff and the soil, or by storing stormwater, in contact with the soil, to promote infiltration / seepage into the subsoil. Quantity control is achieved through detention and slow release of prescribed volumes of stormwater by way of ponds or storage facilities with restricted outlets.

The ICC mitigation program encompasses installation of State-of-the-art stormwater controls. For example, in sensitive areas like streams in the Upper Paint Branch Stream Valley Park, certain measures are designed to lower temperature and to help maintain critical low flow volumes in streams to protect sensitive aquatic habitat and encourage a greater level of pollution removal than is normally achieved with less comprehensive approaches. The project also has

committed to a series of stormwater retrofits to address existing sites which have uncontrolled or sub-standard drainage to sensitive water bodies such as Upper Rock Creek, the Good Hope and Gum Springs tributaries and the mainstem of Paint Branch. Several projects, for example, will involve construction of new stormwater detention facilities in areas that were developed prior to stormwater management requirements. For some of these areas that lack stormwater management and available land for a conventional facility, the project is taking an innovative approach by locating a number of small filtration type facilities throughout the watershed. This is evident in the Upper Paint Branch Special Protection Area (SPA) where 21 locations grouped into 13 environmental stewardship projects called SPA Best Management Practices (SPA-BMPs) are proposed. It is anticipated that these small projects coupled with the proposed new and retrofitted stormwater facilities in the Upper Paint Branch and its tributaries will provide the hydrologic modification that has been cited by the local resource agencies as the critical step toward protection of the high water quality and possibly improvement of the existing stream habitat. Through the environmental stewardship and mitigation programs associated with the Selected Alternative, water quality and stormwater management improvements will be made in each of the major watersheds in the Project area.

In its comments on the Final EIS, the DOI stated “the Lead Agencies’ commitment to water quality are exceptional. These advanced stormwater management facilities will negate the majority of water quality and erosive impacts associated with the acres of impervious surfaces that the highway will add to the watersheds.” See page 6, letter of 2/24/06, included in *Attachment B* to this ROD.

SHA has offered and the USACE is expected to include in its Section 404 permit a series of stringent stormwater control conditions. Many of these conditions impose requirements that

are more stringent than the Maryland Department of the Environment 2000 Maryland Stormwater Design Manual. These measures ensure that the project will not result in significant degradation of aquatic resources. In general, mitigation measures have been adopted to address the two major categories of project stormwater impacts – a.) construction, and b.) operation and maintenance of a completed facility. Erosion and Sediment Control practices are used to address impacts during construction. Stormwater Management (SWM) practices are used to address post construction, during operation and maintenance activities.

a. Construction

SHA must meet Maryland Department of the Environment (MDE) permit requirements for erosion and sediment control during construction to prevent release of sediment into receiving streams. As such, erosion and sediment control plans to address earth disturbance must be approved by MDE prior to the start of construction in the areas covered by the plans. MDE has established requirements for erosion and sediment control practices to be employed on the project, and MDE has compliance inspection authority to make sure that plans are implemented as approved. Because the MDE cannot be on-site inspecting the project at all times, steps have been taken to improve baseline erosion and sediment control for the ICC. These include:

- SHA has developed a rigorous training program for contractors and inspectors, and certification that will be required for key members of the contractor's staff have successfully completed the training is required.
- The contract specifications will include monetary incentives for successful and thorough contractor erosion and sediment control performance and disincentives for substandard erosion and sediment control performance by contractors.
- SHA will employ an "Independent Environmental Monitor" who is a recognized expert or persons knowledgeable about natural resources protection and construction, and reports directly to regulatory agencies about problems observed during design review and construction phases, including erosion and sediment control problems.

- Redundant erosion and sediment control devices will be employed in Montgomery County Special Protection Areas to compensate for the limited efficiency of MDE's required stormwater facilities and provide a higher level of resource protection. Redundant as applied here means that the scheduled stabilization of disturbed areas will be accelerated and multiple, in series sediment trapping or filtering devices will be employed prior to discharge of runoff from the construction site.
- SHA has established a back-up or contingency plan for erosion and sediment control in case the contractor fails to perform to the high standards required or is unresponsive to calls for corrective actions.

See *Section IV.F.5a* (Page IV-166) of the Final EIS. *Attachment A* and *Attachment D* of this ROD contain stormwater management retrofits planned as part of the environmental stewardship and mitigation package.

b. Operation and Maintenance

Mitigation measures for stormwater management (SWM) practices will be included in the contract specifications to address anticipated stormwater impacts during operation and maintenance of the ICC. The stormwater management features will be designed to provide additional protection from runoff in all areas with sensitive natural resources. For example, linear sand filters and vegetated swales will be constructed along the roadside and the median in the Upper Paint Branch and North Branch of Rock Creek Special Protection Areas. Underground stormwater management facilities will be used in the Upper Paint Branch Watershed. Infiltration devices that store excess surface runoff and provide contact with undisturbed soils to promote seepage into the ground will be constructed where physically suitable within the Upper Paint Branch Watershed. The linear filters and underground stormwater management facilities will provide an additional measure of protection for chemical and thermal water quality properties of receiving streams, and infiltration will provide groundwater replenishment (also called recharge), augment stream baseflow, and mitigate thermal impacts.

The design parameters applied to the ICC will exceed MDE regulatory requirements for water quality throughout the project by providing treatment for a 1.5 inch rainfall event (MDE's requirement is 1.0 inch), thereby treating a greater percentage of annual rainfall events in certain watersheds than required by MDE, and providing additional measures to protect environmentally sensitive watersheds. The 1.5 inch criterion provides water quality treatment for up to 95 percent of annual rainfall events in Maryland. Groundwater recharge and water quantity control will also be addressed throughout the project in accordance with MDE requirements. See *Section IV.F.5a and b* (Pages IV-166 to 172 and IV-186 to IV-187) of the Final EIS.

3. Wetlands and Streams

FHWA anticipates that the USACE Section 404 permit and corresponding permits from MDE will require extensive mitigation for aquatic resources. Compensatory mitigation is required, above and beyond the avoidance and minimization measures already incorporated into the project design. The EIS describes the general goals of compensatory wetland mitigation, with an emphasis on "in-kind" replacements within the watersheds affected by the proposed action. See *Section IV.F.7.f* (Page IV-237) of the Final EIS. This standard has resulted in the identification of seven major replacement sites, which will result in approximately 83 acres of new wetlands in the Study Area. The newly established wetlands will supply a host of important ecological functions and values such as flood storage and attenuation, nutrient balance, groundwater recharge – discharge, a diversity of habitat types, open space and passive recreational opportunities. FHWA expects that for the ICC, a USACE permit condition will require the following mitigation ratios for the approximately 50 acres of wetlands identified along the Selected Alternative: Scrub-shrub wetlands - 2:1⁴, Forested wetlands - 2:1, Washpond

⁴ For every acre impacted, two acres of mitigation will be provided.

wetlands - 1:1, (may be mitigated with emergent, scrub-shrub, or forested wetlands) and emergent wetlands - 1:1. The proposed ICC mitigation plan exceeds these ratios.

In addition, the ICC mitigation plan includes approximately 11,000 linear feet of stream restoration on the mainstem of Northwest Branch; 3,000 linear feet of restoration on the mainstem of Indian Creek; and 6,700 linear feet of restoration in the Paint Branch and Upper Paint Branch watershed. To improve the likelihood of success at the wetland mitigation sites, SHA is committed to: the principles and practices contained in MDE's Nontidal Wetland Mitigation Guidance, the USACE Regulatory Guidance Letter #2002-02; the Mitigation and Monitoring Guidelines made final by the Baltimore District Regulatory Program, U.S. Army Corps of Engineers in 2004; and the National Wetlands Mitigation Plan by a Federal Interagency Task Force that includes the USACE, U.S. Environmental Protection Agency (EPA), other agencies and departments.

Although these guidance documents are relatively recent and some components of the national plan are still under development, SHA has been using most of the recommended techniques for wetland mitigation assessment, design, and construction and monitoring for many years. Additionally, through a system of post-construction monitoring, reporting, regulatory agency inspection and remedial measures if needed, SHA has adopted an adaptive management approach within their mitigation program.

A substantial effort has been made by SHA to implement a watershed needs-based approach to mitigation. The project's Inter-Agency Working Group resource and local resource managers were instrumental in the identification of watershed needs which varied within the Study Area. As a regional leader in the practice of stream restoration, SHA is committed to continuing their efforts that emphasize geomorphic assessment and naturalized channel design

methods. The stewardship and mitigation projects that result from these efforts will stabilize eroding streambanks; reestablish stream channel and floodplain connectivity; enhance aquatic habitat, floodplain; enhance aquatic habitat; improve riparian buffers; and reduce sedimentation, fish blockages and other existing stresses on impacted streams. Another aspect of the plan is vernal pool replacements, which will replace impacted amphibian habitat particularly in the Upper Rock Creek Special Protection Area and the Northwest Branch watershed. Additionally, SHA will consider establishment of a variety of habitat types at the environmental stewardship and mitigation sites, including additional vernal pools, where practical.

4. Community Mitigation

Community impacts mitigation focuses on maintaining access and the reduction of noise and visual effects associated with the development of a highway near existing homes, public facilities and commercial properties. SHA has committed to a program of landscaping, and construction of retaining walls and noise barriers designed to make the facility less noticeable. For example, the view of the ICC/US 29 three-level interchange will be screened from the Avonshire and Tanglewood communities by constructing earthen berms, walls, vegetative screening, or some combination thereof. SHA will ensure that the SHA-owned land on which these features are constructed will be dedicated to providing visual screening of communities adjacent to the interchange. Significant public benefit is anticipated in areas where SHA will maintain or establish pedestrian access upon completion of the ICC, such as under the ICC bridge over Little Paint Branch near the Greencastle Manor Community Area. Another example is a pedestrian access between the Spring Oak Estates Community Area and Paint Branch Park that will be provided after construction of the ICC bridge spanning the Good Hope, Gum Springs, and Paint Branch tributaries.

Mitigation measures would also include the use of building materials to match the surrounding area when visual intrusion cannot be avoided and the placement of plant buffers to screen incompatible views. Sound barriers consistent with FHWA standards will be evaluated for approximately 27 Noise Sensitive Areas along the Selected Alternative, including for the protection of neighborhoods that were originally planned with an ICC right-of-way incorporated as part of the development. The project also reflects an important community element as expressed by many members of the public by accommodating and connecting to existing hiker-biker trails parallel to the ICC, as well as supporting bicycle and pedestrian-friendly projects around the Study Area. A total of 11.4 miles of trails will be constructed as described on pages 11 to 14 of this ROD.

5. Terrestrial Wildlife Passages

The mitigation package also includes an aggressive program to encourage safe wildlife passages across the highway. In addition to the bridges at major stream crossings, a total of 44 bridges and culverts to provide safe passage for deer or small mammals will be constructed. Culvert lengths designed for deer passage will be as short as possible, but in no case shall exceed 280 feet. Because these culverts are being considered specifically to accommodate deer passage, the interagency team has agreed that the interior dimensions will be 12-foot by 12-foot or larger. These passages will also minimize potential harm to travelers by reducing to the maximum extent practicable deer/vehicle collisions that have been a problem in the Study Area. These features will be designed and their placement determined after consultation with wildlife resource agencies. Post-construction monitoring will help ensure the success of these mitigation features and identify possible modifications. Fish passages are also included in the mitigation package to address existing problems identified during the survey of environmental conditions.

6. Reforestation and Creation of Forest Interior Dwelling (FID) Bird Habitat

Over 700 acres of land will be reforested to create new forest habitat within the Study Area. Reforestation will be concentrated along streambanks that lack forested buffers, forested riparian areas less than 300 feet wide, areas within project right-of-way, on public land located within the county/watershed and open areas within or adjacent to existing FIDs habitat focusing on creating contiguous zones of forest cover to promote FID species habitat and parkland recreation. Other areas will create reservoir buffers for Rocky Gorge and promote greater protection of important drinking water resources. Reforestation will occur in the following locations:

- Casey Property at Hoyles Mill (up to 118 acres)
- Washington Suburban Sanitary Commission (200 acres)
- Maryland Department of Natural Resources (200 acres)
- Maryland-National Capital Park and Planning Commission (75-100 acres)
- Parkland Mitigation Sites (100 – 150 acres)
- Wetland/ Stream Compensatory Mitigation and Environmental Stewardship Sites (75 acres)
- Unassigned SHA Reforestation Acreage within Montgomery and Prince George's Counties (50 to 75 acres)
- Reforestation within the proposed ICC ROW (75 – 100 acres)

7. Air Quality

Several measures are planned to minimize mobile source emissions during construction. For example, contract specifications will not permit vehicles and equipment to idle during long periods of time. The measures will be monitored during project construction. In addition, a Diesel Emission Reduction Plan will be required for this project that can serve as a precedent for other transportation projects around the State. See *Section VIII.C* of this ROD for more information on Air Quality Mitigation Measures.

8. Historic Resources

As part of obligations pursuant to the National Historic Preservation Act, the Lead Agencies entered into a Memorandum of Agreement with the State Historic Preservation Officer that reflects a series of stipulations designed to mitigate potential adverse effects to historic resources in the Study Area. See *Appendix J* of the Final EIS. The majority of these mitigation measures are designed to address visual impacts to identified resources through landscaping plans to be developed and implemented between the ICC and the historic Cashell Farm and Willow Grove properties. These plans will be designed and implemented within one year following the completion of the ICC construction. A “Wayfinding program” will also be developed to assist motorists in identifying heritage tourism opportunities in the Montgomery County Heritage Area and the Anacostia Trails Heritage Area. Additional archeological research will be completed (and survey findings reported) to identify resources potentially eligible for the National Register of Historic Places that may be impacted. Any resources unexpectedly identified during project construction will be addressed in accordance with National Historic Preservation Act and Section 4(f) regulations to avoid, minimize or mitigate adverse effects to any such newly discovered properties.

9. Parklands

The Lead Agencies commit to provide 776.6 acres of new parkland, which is intended to mitigate for the approximately 88 acres of parkland that would be used by the Selected Alternative. The majority of the replacement parkland would be transferred to the M-NCPPC, which is responsible for owning and managing the local park system.⁵

⁵ One parkland replacement site, the Santini Road Properties, would be transferred to the Washington Suburban Sanitary Commission, which would manage that land as part of its land holdings in the watershed of the Rocky Gorge Reservoir.

For a detailed description of the parkland created as part of the mitigation package, refer to pages 107 to 109 of this ROD.

C. Next Steps

Following this ROD, SHA plans to proceed with the remaining steps of project development, i.e., right-of-way acquisition, final engineering and construction. A financial plan and a project management plan will be completed and updated annually until the project is completed. SHA will obtain all required permits and Federal approvals for constructing the project. Following these approvals, SHA will complete procurement for the design-build contractor(s).

SHA also plans to promptly begin more detailed analysis and project development of the environmental mitigation and stewardship sites. Until the project construction is complete, including environmental commitments, SHA plans to have continued coordination with the Inter-Agency Working Group. The Inter-Agency Working Group will have opportunities to review and comment on the additional work that will be started on the environmental mitigation and stewardship sites. The environmental mitigation and stewardship sites will be subject to all applicable environmental regulations.

Following the ROD, the FHWA will provide oversight on the procurement, design and construction of the ICC project, including the design and construction of environmental mitigation and stewardship projects. In addition, FHWA will ensure, through its oversight role, that the commitments and mitigation measures outlined in this ROD will be implemented. As stewards of the Federal portion of the public funds, FHWA will take necessary steps to keep the project on schedule and within budget while fulfilling the requirements of the ROD. FHWA will approve SHA's request for changes to InterState access points at I-370 and I-95 and to enter into

an agreement with SHA and MdTA, under 23 U.S.C. 129, authorizing the tolling of the ICC on the Federal-aid highway system.

IV. ALTERNATIVES CONSIDERED

A. Purpose and Need

At the outset of the current NEPA study, the Lead and Cooperating Agencies undertook a careful analysis of the transportation needs and agreed upon a new, detailed Statement that identified the needs in the Study Area that the ICC was intended to address. There are many transportation needs in the Study Area and not any one project could address all of these needs.

The five needs identified for the ICC project were:

1. To increase community mobility and safety;
2. To facilitate the movement of goods and people to and from economic centers;
3. To provide cost-effective transportation infrastructure to serve existing and future development patterns reflecting local land use planning objectives;
4. To help restore the natural, human, and cultural environments from past development impacts in the Study Area; and
5. To advance homeland security.

These needs are explained in detail in *Sections I.B and I.E* (Pages I-1 to I-3 and I-4 to I-31) of the Final EIS. The purpose of the ICC project is to address these five needs within the Study Area. The proposed action would “link existing and proposed development areas between the I-270 and I-95/US 1 Corridors within central and eastern Montgomery County and northwestern Prince George’s County with a State-of-the-art, multi-modal, east-west highway that limits access and accommodates passenger and goods movement.”

A draft purpose and need Statement was presented for public review and comment through public workshops in June, 2003 and on the project website. Over 800 people attended

the workshops, and 150 public comments on the draft purpose and needs and potential alternatives were offered. Comments were also provided by several of the Cooperating and consulting agencies. The draft Statement of purpose and need provided a framework for the Lead Agencies to begin a preliminary assessment of the ideas generated through the scoping process. All comments were considered in development of the final Statement of purpose and need, which was ultimately accepted by all Cooperating Agencies and included in the EIS.

B. Scoping

The scoping process for the current ICC study was initiated in June 2003 with an Interagency Workshop held at the University of Maryland. This meeting of over 100 representatives from 21 local, State and Federal agencies involved in the NEPA study was followed by several public workshops/open houses in June and September 2003. These sessions were designed primarily to gain public input on the draft purpose and need Statement and on developing a preliminary range of alternatives that would be considered in light of the proposed purpose and need.

As previously summarized, the NEPA process for the ICC is the third major Federal study performed on this proposed action in the last 25 years. Therefore, the agencies had an opportunity to consider through this scoping process the more than 300 suggested alternatives that had been reviewed as part of prior studies. These suggestions were grouped together into general categories based on geography (alternative locations for an ICC or other road improvements), modes of transportation (highway, transit, rail), non-highway alternatives (upgrading local roads, various land use options, travel demand management), and No-Action.

Non-highway alternatives were not summarily discarded during the scoping process. Every alternative was screened to determine whether it met the purpose and need or if the

alternative presented incurable environmental or engineering obstacles. As a result of the preliminary screening, 18 distinct alternatives were selected for preliminary consideration to determine if they warranted in-depth development as alternative courses of action in the Draft EIS. The 18 alternatives were:

1. Midcounty Highway-MD 198 (MM 198) Alternative (Arterial Alternative)
2. Upgrade Existing Roads Alternative (UERA)
3. Transit-Only Alternative
4. Howard County Connection Alternatives
5. Balanced Land Use Alternative
6. Combined Balanced Land Use and Transit Alternative
7. M-NCPPC Staff and Board Hybrid Alternatives from 1997 Study
8. Improve I-495
9. Auto-Train Route
10. Extend ICC west of I-270 and/or east of US 1
11. Construct a roadway from I-270/Falls Road to the Master Plan Alternative at MD 97 in lieu of building the Master Plan Alignment between I-370 and MD 97
12. Move the ICC south of all other alternatives
13. Build I-95 to continue through the District of Columbia
14. Transportation Systems Management/Travel Demand Management (TSM/TDM) Alternative
15. Construct Two Separate East and West Highway Links
16. Corridor 1 (similar to the Master Plan Alternative, as identified in previous studies)
17. Corridor 2 (similar to the Northern Alternative, as identified in previous studies)
18. No-Action

For more on each of these alternatives see *Section III.A* (Pages III-2 to III-8) of the Final EIS.

C. The Alternatives Retained for Detailed Study (ARDS) Determination

The next step was to analyze the 18 alternatives to determine if they could adequately address all of the elements of this project's purpose and need. This analysis is referred to as the determination of ARDS. The Cooperating Agencies continued to be consulted through a series of Inter-Agency Working Group meetings from the fall of 2003 through March 2004 as the Lead Agencies narrowed the range of alternatives to those that warranted detailed evaluation in the Draft EIS. Three public alternatives workshops were held in November 2003. At these meetings, the Lead Agencies reported that of the 17 preliminary build alternatives, 15 could not

adequately address the project purpose and need. For the most part, the alternatives proposed to be eliminated were unable to address the purpose and need elements as they relate to enhanced mobility and safety, the movement of goods and people to economic centers, and/or they were not consistent with existing or planned land uses.

Certain proposed sub-alignments for the proposed highway routes through Rock Creek and Paint Branch parks also were dropped from detailed consideration during the ARDS process.⁶ These decisions were made because of concerns expressed by one or more of the Cooperating Agencies that the particular sub-alignments would either have significant wetland or floodplain impacts, and were otherwise substantially similar to other sub-alignment options through those parks. In addition, all non-tolled options were dropped from detailed consideration because it was determined that tolls are required to fund the project and to effectively manage traffic demand and congestion.

During the ARDS process, although the Lead Agencies looked at the needs and possible solutions anew, the agencies were mindful of data already collected for the 1997 NEPA study. For example, certain elements of the natural and socio-economic environmental inventories were incorporated into the ARDS analysis and field-verified as necessary to determine if there were any important changes to the existing environment. This material is contained in the project files.

All these details and the draft ARDS Report were shared with the Inter-Agency Working Group. In March and May 2004, the USACE and MDE expressed concurrence in writing with the alternatives selected for detailed consideration in the Draft EIS. The EPA, along with the

⁶ The sub alignments were referred to in the Final EIS as “options” and “sub options” for Corridor 1 and Corridor 2. *Section III.3.a* (Pages III-40 to III-45) of the Final EIS.

other agencies of the Inter-Agency Working Group, also expressed their agreement with the ARDS determination through feedback at several interagency meetings.

The ARDS analysis is summarized in *Section III.B* (Pages III-9 to III-26) of the Final EIS, and is documented in detail in the technical report *Alternatives Retained for Detailed Study (ARDS)* (SHA 2004) and in the project files. The ARDS analysis concluded that the EIS would study in detail the No-Action Alternative; two end-to-end highway alternatives including two optional termination points on the eastern end of the Study Area, eleven alignment options for one highway alternative and four alignment options for the other; and eight interchange configurations for one highway alternative and nine for the other. These EIS alternatives, referred to as Corridor 1, Corridor 2, and the No-Action Alternative, are summarized below and described in *Section III.E* (Pages III-28 to III-35) of the Final EIS.

D. No-Action Alternative

The No-Action Alternative analyzed in the Final EIS assumes that all transportation improvements formally planned for construction by 2030, except for the ICC, will be built.⁷ The No-Action Alternative also assumed that travel demand measures, such as increased incentives for use of transit, car pooling, telecommuting, etc., will be broadly implemented throughout the Washington metropolitan area by 2030.

Although the ARDS Determination concluded that the No-Action Alternative was not likely to satisfy the ICC's purpose and need, it was nonetheless fully developed as an EIS

⁷ Consistent with state-of-the-practice methodology, the projects comprising the No-Action Alternative included all of the projects listed within the National Capital Region Transportation Planning Board's 2003 Constrained Long Range Plan ("CLRP") and 2003 Transportation Improvement Program (TIP), with the exception of the ICC. The CLRP consisted of approximately 780 road, transit, pedestrian and bikeway projects in the Washington, D.C. metropolitan area, including 141 major construction projects as well as intersection, interchange, and roadway improvements to address localized problems. The TIP, which is made a part of the CLRP, included another 700 plus projects. For the modeling exercise used to test regional air conformity and used for the ICC studies, upwards of 650 individual projects were coded into the travel demand model (Version 2.1C)

alternative in order to meet NEPA's requirement for a baseline scenario from which to compare the effectiveness and environmental impacts of the build alternatives. For example, the inclusion of the No-Action Alternative in the EIS enabled the Lead Agencies to forecast the likely future transportation conditions in the Study Area if the ICC were not built and a benchmark for analysis of potential secondary or indirect effects in and around the Study Area.

FHWA has identified the No-Action Alternative as the environmentally preferable alternative, pursuant to 40 C.F.R. 1505.2(b). However, the Final EIS concluded that this alternative does not satisfy the identified purpose and need for the project, explaining that the transportation analyses show that the No-Action Alternative would result in a substantial loss in mobility, increased congestion, and an increase in the number of crashes on non-ICC roadways. Because the No-Action Alternative would lead to increased congestion, it also would be unable to meet the purpose and need element of facilitating the movement of goods and people to and from key economic centers. None of the environmental stewardship projects would be pursued under the No-Action Alternative and the lack of an access controlled east-west highway north of the Capital Beltway would fail to address emergency response or homeland security concerns. See *Section VII.C* (Pages VII-28 – VII-30) of the Final EIS.

E. Corridor 1

Corridor 1 follows the general alignment set for the ICC by Montgomery and Prince George's counties in their master plans. The alternative extends from I-370/I-270 near the Shady Grove Metrorail Station to I-95/US 1 between Beltsville and Laurel. Four distinct alignment options and eight interchanges were also considered. An additional option to terminate the ICC at I-95 in lieu of continuing to US 1 was also evaluated. The Corridor 1 options could be

combined into four different end-to-end routes. Corridor 1 and its options are depicted on

Figure 5. The Corridor 1 alignment options that were developed in detail in the EIS are:

- **Rock Creek Option A** East of Nedham Road, Rock Creek Option A would curve to the southeast through Rock Creek Regional Park to a crossing of Needwood Road southwest of MD 115. Rock Creek Option A would pass over Needwood Road, and would continue in a southeasterly direction and pass beneath MD 115 north of Avery Park Drive. Rock Creek Option A is very similar to M-NCPPC's planned ICC alignment.
- **Rock Creek Option C** is a Rock Creek Park minimization option that would curve to the northeast starting just west of Redland Road, passing through the Cashell Estates subdivision. This option would then curve to the east and pass through the Winters Run subdivision between Heatherford Court/Pilgrims Cove and Farmingdale Court, utilizing the area reserved for future M-83 (Midcounty Highway). Two vertical alignment options were considered for Rock Creek Option C at its crossing of Olde Mill Run, the entrance road from MD 115 to Winters Run:
 - *The Olde Mill Run Grade Separation sub-option* would place the ICC in a cut, with a bridge to carry Olde Mill Run over the ICC, and retaining walls along both sides of the ICC. The bridge with a sizable landscaped deck of approximately 600-650 feet would provide an area over the ICC on both sides of Olde Mill Run. This option preserves the existing traffic access to the Winters Run community and provides for further aesthetic treatments adjacent to some of the community close to the alignment.
 - *The Olde Mill Run Cul-de-Sac sub-option* would have the ICC cross Olde Mill Run near its existing grade, with a cul-de-sac on both sides of the ICC. Under this scenario, the residences in Winters Run south of the ICC would utilize an extension of Garrett Road and reconstructed Overhill Road to access Redland Road.
- **Northwest Branch Option A** would carry the ICC southeast from MD 182 through Layhill Local Park and Northwest Branch Recreational Park and cross over Bonifant Road in the vicinity of the National Capital Trolley Museum. The alternative would then cross Northwest Branch Stream Valley Park in an "s" shaped curve that would use more parkland but greatly minimizes harm to the park's resources.
- **Northwest Branch Option B** would carry the ICC across Bonifant Road west of the National Capital Trolley Museum, and then follow the Designated Transportation Area (DTA) shown in area master plans.

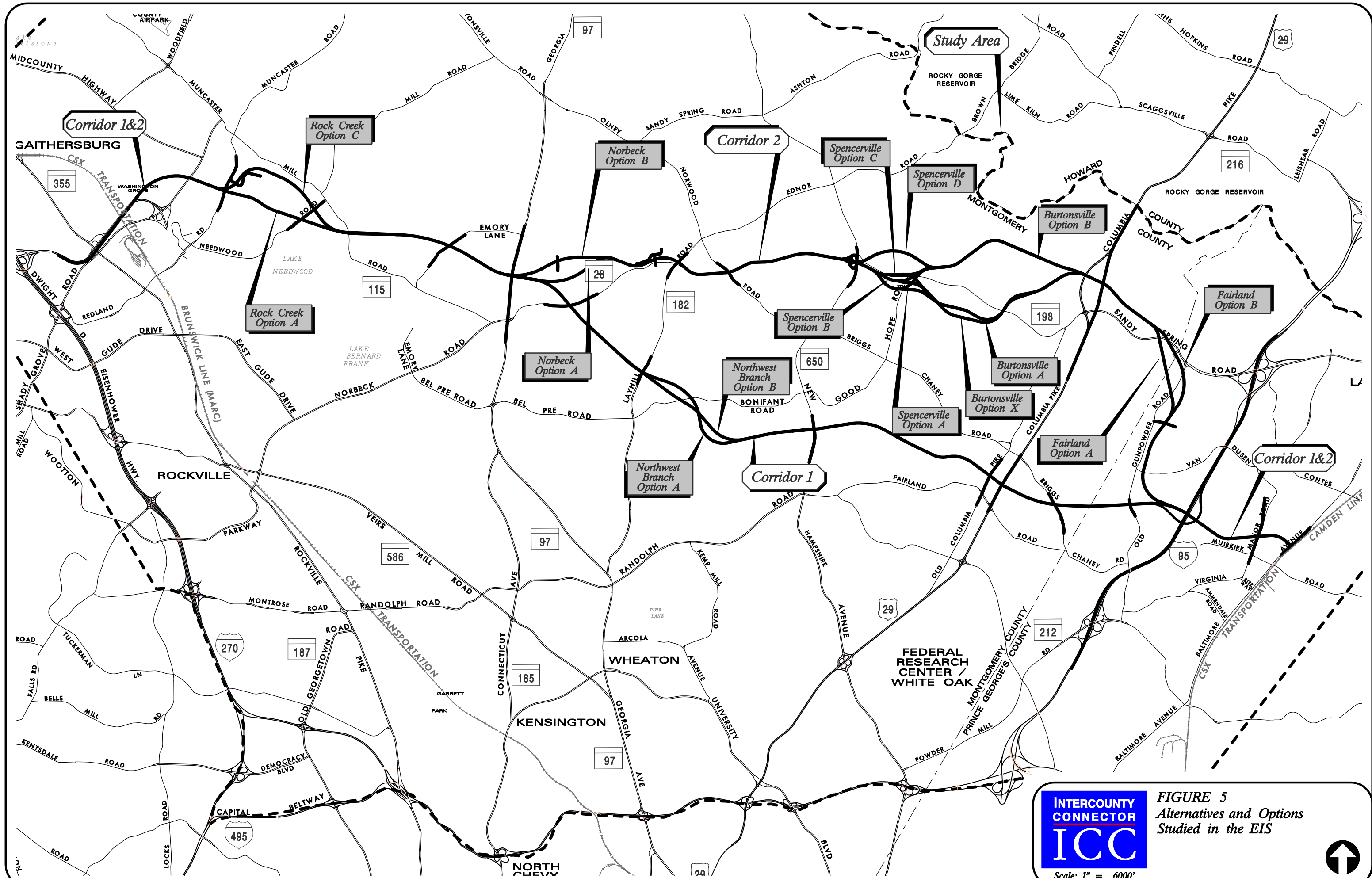


FIGURE 5
Alternatives and Options Studied in the EIS



Interchanges would be provided at the following locations along Corridor 1:

- MD 355 - the existing ramp from northbound I-370 to northbound MD 355 would be modified to serve both northbound and southbound traffic.
- Shady Grove Metrorail Access Road/Shady Grove Road - existing I-370 would be reconstructed at this location, and ramps provided between the Access Road and I-370 to the west and ICC to the east.
- MD 97 (Georgia Avenue) - a partial cloverleaf interchange with two new signalized intersections on MD 97 is planned.
- MD 182 (Layhill Road) – a diamond configuration of ramps with a signalized intersection is planned.
- MD 650 (New Hampshire Avenue) - An urban diamond-type interchange, with a signalized intersection, is planned.
- US 29/Briggs Chaney Road - A full interchange with multiple semi-directional ramps is planned at US 29. A partial interchange with ramps on the east side of the ICC/Briggs Chaney Road interchange would be necessary to provide full access to and from the ICC at Briggs Chaney Road.
- I-95 - In order to provide adequate weave lengths and spacing of entrances and exits, improvements along I-95 will extend from the north side of MD 212 to north of MD 198, including a system of ramps and collector-distributor roads, diagonal or loop ramps, and one semi-directional ramp.
- Virginia Manor Road - A half-diamond interchange and two signalized intersections, with auxiliary turn lanes is planned.

F. Corridor 2

Corridor 2 begins and ends at the same locations as Corridor 1, and from the western terminus at I-370 to MD 97 (Georgia Avenue), Corridor 2 is identical to Corridor 1 including the same options in the Rock Creek area. However, at MD 97, Corridor 2 curves 2-3 miles to the north and then rejoins Corridor 1 on the west side of I-95. From the west side of I-95 to US 1, Corridor 2 is again identical to Corridor 1. Corridor 2 included 13 alignment options, nine interchanges and the same eastern termination point options as Corridor 1. The Corridor 2 alignment options could be combined into 72 different end-to-end routes. The extensive options

developed for Corridor 2 primarily resulted from the Lead Agencies' efforts to avoid and minimize harm to historic resources, which are much more prevalent in the northern area traversed by Corridor 2 than along the southern Corridor 1. Corridor 2 and all of the options described below are depicted in *Figure 5*.

The Corridor 2 alignment options that were developed in detail in the EIS are:

- **Rock Creek Option A, Rock Creek Option C, the Olde Mill Run Grade Separation sub-option and the Olde Mill Run Cul-de-Sac sub-option** are identical to those options with the same names described above for Corridor 1.
- **Norbeck Option A** would pass south of the Willow Grove historic site, then turn to the northeast, cross Mt. Everest Lane and Batchellors Run, and then curve to the east, south of Cross Timber Terrace, crossing a tributary to Batchellors Run.
- **Norbeck Option B** would swing to the northeast at MD 97 and then curve to the east on the north side of the Willow Grove Historical Site. This option would pass through the southern portion of the Trotters Glen Golf Course and cross over a tributary to Batchellors Run, where it would join Norbeck Option A.
- **Spencerville Option A** would cross under MD 650 south of existing MD 198 and continue in a southeasterly direction to Upland Drive, and then cross over Good Hope Road at Upland Drive when connecting to Burtonsville option A. Various connection options exist depending on how Spencerville A would connect to the Burtonsville options.
- **Spencerville Option B** would pass under MD 650 south of existing MD 198 and continue in an easterly direction, through the Korean Spencerville Seventh Day Adventist Church and Academy. Various connection options exist depending on how Spencerville B would connect to the Burtonsville options.
- **Spencerville Option C** would pass under MD 650 south of existing MD 198, continue in an easterly direction and cross to the north side of MD 198, just east of Veitch Lane. Various connection options exist depending on how Spencerville C would connect to the Burtonsville options.
- **Spencerville Option D** would cross under MD 650 south of existing MD 198, then curve to the northeast, passing under Parrs Ridge Drive. This option would then curve to the east, cross under Oak Hill Road north of MD 198, and continue in an easterly direction toward Batson Road.
- **Burtonsville Option A** would continue in an easterly direction and pass under Peach Orchard Road on the south side of the Free Methodist Church Camp Meeting Ground historic site. It would then curve to the southeast and then to the northeast, crossing over

the Paint Branch Right Fork. This option would pass under MD 198, east of Allnutt Lane and Kruhm Road, north of MD 198. Continuing in a northeasterly direction, Burtonsville Option A would pass south of Belle Cote Drive and north of Santini Road, and pass under existing US 29 just north of the Columbia Primitive Baptist Church historic site.

- **Burtonsville Option X** is a variation of Burtonsville Option A, differing from Option A from west of Thompson Road to MD 198. Rather than cross Peach Orchard Road on the south side of the Free Methodist Church Camp Meeting Ground historic site, as would Option A, Option X would cross Peach Orchard Road approximately 500 feet further south, between Rowland Lane and Thompson Road. This option avoids the constructive use of the historic site.
- **Burtonsville Option B** would curve to the northeast, crossing to the north side of the Potomac Electric Power Company (PEPCO) power line. This option would pass under Kruhm Road north of the power line and continue eastward to pass under existing US 29 just north of the Columbia Primitive Baptist Church historic site.
- **Fairland Option A** would cross under MD 198 east of Birmingham Drive and follow the west side of the PEPCO tower line. It would pass under Old Gunpowder Road, then pass under planned Contee Road, where an interchange would be provided.
- **Fairland Option B** would cross under MD 198 east of Birmingham Drive and continue in a southeasterly direction, on the south side of MD 198, to a crossing over Old Gunpowder Road south of MD 198. Fairland Option B would then proceed southward, between Old Gunpowder Road and the PEPCO tower line, to a crossing under planned Contee Road, where an interchange would be provided, as described for Fairland Option A. This option was developed to minimize wetland and floodplain impacts.

At MD 355, Shady Grove Metrorail Access Road/Shady Grove Road, MD 97, I-95 and Virginia Manor Rd – the interchanges considered for Corridor 2 are identical to Corridor 1 in these locations. Interchanges would also be provided at the following locations along Corridor 2:

- MD 182 – the movement from the eastbound ICC to MD 182 would be made via a directional ramp west of MD 182, connected to MD 28. A diamond-type ramp in the southeast quadrant would accommodate movements from MD 182 to the eastbound ICC and eastbound MD 28 traffic approaching MD 182 that would continue east onto the ICC. A loop and a directional ramp in the northeast quadrant would carry traffic between MD 182 and the westbound ICC.
- MD 650 – there are three variations to the design of the MD 650 interchange depending on which combination of Spencerville/Burtonsville alignment options were evaluated:
 - MD 650 Interchange Option #1 would be associated with the following combinations of Spencerville and Burtonsville options:
 - Spencerville Option A/Burtonsville Options A or X
 - Spencerville Option B/Burtonsville Options A or X

- Spencerville Option C/Burtonsville Option A
- Spencerville Option A/Burtonsville Option B

These four option combinations would include a loop ramp and directional ramp in the northwest quadrant, with diamond-type ramps in the southwest and southeast quadrants. MD 198 would be relocated, on the north side of Corridor 2, and intersect MD 650 opposite the ramps in the northwest quadrant, and MD 650 would be widened for a few hundred feet north of Corridor 2.

- MD 650 Interchange Option #2 would be associated with the following combinations of Spencerville and Burtonsville options:
 - Spencerville Option B/Burtonsville Option B
 - Spencerville Option C/Burtonsville Option B

These two option combinations would have two loop ramps and two directional ramps. Relocated MD 198, located on the south side of the ICC, would intersect MD 650 opposite the ramps in the southwest quadrant. An access road would intersect MD 650 opposite the ramps in the northwest quadrant, and continue east to Oak Hill Road. This interchange option would result in two signalized intersections on MD 650.

- MD 650 Interchange Option #3 would be associated with the Spencerville Option D/Burtonsville Option B

This option combination is similar to that described above for Spencerville Option B/Burtonsville Option B and Spencerville Option C/Burtonsville Option B, except it has no access road in the northeast quadrant.

- US 29 - the interchange at US 29 would split between Existing and Relocated US 29. A half-diamond interchange on the west side of Existing US 29 would carry motorists from Existing US 29 to the westbound ICC, and from the eastbound ICC to Existing US 29. At Relocated US 29, a combination of loop, semi-directional, and directional ramps would accommodate all movements between Relocated US 29 and the ICC. It should be noted that movements between MD 198/Existing US 29 and the ICC to the east could not be accommodated at US 29. Those movements would be made further to the east at Contee Road.
- Contee Road – the interchange for Contee Road includes a diamond configuration to the west and a partial cloverleaf and diamond configuration to the east. All traffic movements to and from the ICC and Contee Road would be accommodated.

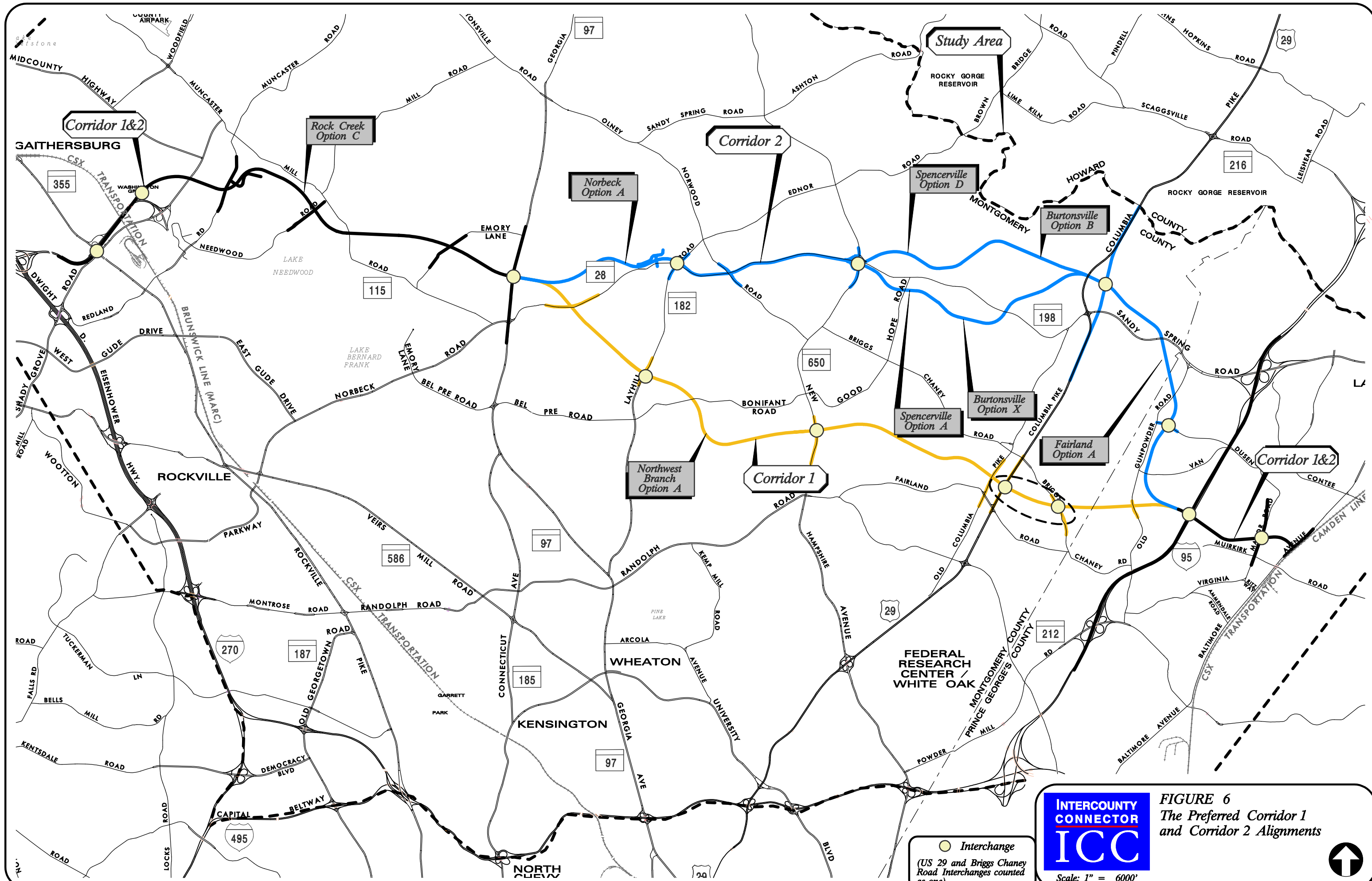
G. The Preferred Corridor 1 and Corridor 2 Alignments

To simplify the comparison between Corridor 1 and Corridor 2, the four combinations of alignment options for Corridor 1 and the 72 combinations of alignment options for Corridor 2 were analyzed to determine the preferred Corridor 1 combination and two preferred Corridor 2

combinations. The preferred combinations minimize overall harm to the environment, particularly to parks and historic sites. See *Sections V.K - M* (Pages V-68 to V-99) of the Final EIS. The preferred combinations, identified on *Figure 6*, includes:

- **Corridor 1:** Rock Creek Option C -- Olde Mill Run Grade Separation and Northwest Branch Option A.
- **Corridor 2AX:** Rock Creek Option C -- Olde Mill Run Grade Separation, Norbeck Option A, Spencerville Option A, Burtonsville Option X, and Fairland Option A.
- **Corridor 2DB:** Rock Creek Option C -- Olde Mill Run Grade Separation, Norbeck Option A, Spencerville Option D, Burtonsville Option B, and Fairland Option A.

The environmental impacts of each preferred Corridor are summarized in *Table 1*. In order to maintain viable options, SHA preserved right-of-way in both of the preferred corridors. SHA owns 321 acres of the Selected Alternative and 413 acres of Corridor 2. M-NCPPC owns 340 acres of the Selected Alternative, 128 acres of which are in the area common to both build alternatives. M-NCPPC owns nothing along Corridor 2 where Corridor 2 deviates from the Selected Alternative because M-NCPPC only has authority to acquire property for purposes included its master plans.



INTERCOUNTRY CONNECTOR
ICC
 Scale: 1" = 6000'

FIGURE 6
The Preferred Corridor 1 and Corridor 2 Alignments

Table 1			
Summary of Environmental Impacts^A			
Resource	Corridor 1 (Selected Alternative)	Corridor 2 AX	Corridor 2 DB
Socioeconomic/Cultural Resources			
Adversely Affected National Register of Historic Places (NRHP) Eligible Properties (No.)	2	9	8
Business and Community Facility Displacements ^B (No.)	10	12	12
Residential Displacements (No.)	50	100	56
Total Right of Way (Acres)	1,389.49	1445.61	1403.01
Natural Environmental Resources			
Wetlands (Acres)	47.79	50.49	53.55
Streams (Perennial/Intermittent only) (Linear Feet)	38,088	33,567	37,563
Floodplain (Acres)	32.95	41.60	44.40
Forest (Acres)	745.86	630.69	636.39
Parkland (Acres)	88.06	29.85	45.35
FIDS (Acres direct impact/acres indirect impact/total acres impacted) ^C	86.92/195.85/282.16	36.4/81.0/117.4	33.9/91.7/125.6
Estimated Costs (2004 Dollars)			
Capital Cost ^D (\$ Billion)	1.53	1.41	1.37
Right of Way Cost (\$ Billion)	0.39	0.43	0.39
Sub-Total Cost (\$Billion)	1.93	1.84	1.76
Other Cost ^E (\$Billion)	0.22	0.22	0.22
Total Costs (\$ Billion)	2.15 ^F	2.06	1.98
<p>A This table incorporates updated impacts based on the Post-Final EIS refinements to either enhance safety, further minimize environmental or community impacts, and/or address public or agency concerns.</p> <p>B Post-Final EIS Refinements (<i>Attachment C</i>) resulted in a savings of three residential displacements. One of these displacements is a combination residential/business use and was counted as a residential displacement.</p> <p>C The indirect and total impact acres do not include 21.2 acres, 6 acres, and 6 acres, for the Selected Alternative, Corridor 2AX and Corridor 2DB, respectively, to reflect the remnant interior forest unsuitable for FIDS discussed in <i>Section IV.F.8.b</i> (Pages IV-258 to IV-265) of the Final EIS.</p> <p>D Construction costs include design, construction, and contingencies</p> <p>E Other costs include Toll Facilities, Maintenance Facilities, Transit Capital Cost, Intelligent Transportation System, Design Build Stipends, Incentives, Environmental Stewardship Package, and Hazardous Materials Mitigation.</p> <p>F FHWA's finance plan requires that the project cost be computed in year of expenditure (YOE) dollars. The YOE dollars takes into account inflation between the present time and the time of construction. The cost of the selected alternate in YOE dollars is 2.45 billion (excluding interest on bond issues).</p>			

H. Post-Draft EIS Alternatives Considered

In response to the Draft EIS, a coalition of environmental groups submitted a report advocating and evaluating several variations of alternatives that had already been analyzed and eliminated in the ARDS determination. This report, authored by the consultant “Smart Mobility,

Inc.” for the coalition, was considered in detail by the Lead Agencies following the close of the public comment period on the Draft EIS. A full analysis of the report was included in *Appendix R-9* to the Final EIS. Due to the level of technical detail and extent of the coalition’s comments, the Smart Mobility’s report for the coalition of environmental groups is discussed below.

The Smart Mobility report analyzed four hypothetical alternatives to constructing the ICC along the corridors described above, and also evaluated the No-Action Alternative and Corridor 1 for comparison purposes. The alternate concepts were presented in the report included Transit-Oriented Land Use and Investment, Toll Lanes and Express Bus, Conversion to High Occupancy Toll (HOT) Lanes and Express Bus, and Transit-Oriented/HOT Lanes/Rail/Express Bus.

The Lead Agencies responded to the report by first describing several global reasons why Smart Mobility’s analysis was not analogous to the evaluation of the ICC Alternatives. For example, the authors of the Smart Mobility report applied a different set of evaluation criteria and measures that are better suited to evaluate region-wide transportation issues as opposed to project-level alternatives. The Lead Agencies’ response, which addressed the conclusions of the Smart Mobility Report authors, went on to undertake a systematic evaluation of each Smart Mobility alternative. The agencies concluded: that nearly all of the initiatives included in the coalition’s alternatives were already studied but did not meet the purpose and need for the ICC; many of the initiatives suggested by the coalition are distinct projects that are currently under evaluation as part of separate NEPA studies (e.g., I-495 improvements, Express Toll Lanes – or HOT lanes along I-270, and the “purple line” (which is now formally called the Bi-County Transitway). Central elements of the four alternatives suggested by the coalition are not under the control of the Lead Agencies (e.g., “balancing” land uses to require that more people live near their jobs); many of the initiatives the coalition included would improve north-south rather

than east-west travel; and some aspects of the coalition's alternatives were well outside of the Study Area and thus did not focus on the purpose and needs that the ICC is intended to address.

The Lead Agencies also carefully reviewed follow-on comments from Smart Mobility submitted by the coalition in response to the Final EIS. In those comments Smart Mobility for the most part repeats its earlier points that the Selected Alternative would not meet the congestion relief needs in the area, most notably along the Capital Beltway and the north-south oriented highways; that other alternatives previously suggested would do as good, if not a better job at meeting the project's purpose and need Statement; that the study team applied only project-level measures and did not consider the more regional measures (i.e., vehicle hours of travel and vehicle miles of travel); and further criticism of the travel demand model and procedures used to develop the ICC studies.

The Lead Agencies have again prepared responses to Smart Mobility's comments, which are included in the volume accompanying this ROD entitled "Record of Responses to Public Comments." To summarize, the Lead Agencies believe that the ICC alternatives should be evaluated against the ICC's identified purpose and need and by applying criteria commonly used in project-level analysis versus regional analysis of alternatives. As with all planning studies, the Lead Agencies properly used only the official, regionally-adopted land use forecasts available at the time for modeling purposes. FHWA's nationally recognized traffic modeling expert Dr. Bruce Spear assisted in evaluating Smart Mobility's claims. See *Attachment F* and the discussion of disputes over methodology below.

I. Disputes Over Methodology

Smart Mobility's report suggested that the travel demand modeling process relied upon by the Lead Agencies was faulty, both in terms of the model and inputs used and the process

used to refine the model outputs. Their claim centers around the group's concern over the Metropolitan Washington Council of Governments' (MWCOC) travel model. The Lead Agencies monitored a Transportation Research Board peer review of the MWCOC's model. The peer review concluded that improvements to the model could be made, but that the model was acceptable for continued use. A complete discussion of the Transportation Research Board's review is included in *Appendix F* of the ICC Travel Analysis Technical Report. Based on the expert opinion of the Transportation Research Board and the Lead Agencies' own travel modeling experts, the Lead Agencies decided to use the official MWCOC model to evaluate the ICC Alternatives. Dr. Spear, the FHWA's traffic modeling expert, noted that "at the time of the Draft EIS, the consultants who conducted the traffic forecasts for the ICC alternatives did use the latest approved model set from MWCOC (Version 2.1C)."

The Smart Mobility report next comments that the Lead Agencies should have re-done the traffic forecasts after MWCOC subsequently adopted a "newer" version of the MWCOC model (version 2.1D) which corrects certain theoretical and methodological deficiencies identified in earlier correspondence and in the peer review. The Lead Agencies consistently used the most appropriate version of the model. The ICC travel demand forecasts were developed using the 2.1C Modified version of the model. The modifications were applied by the agencies to ensure that the model performed even better for the evaluation of the ICC study alternatives. In a Statement attached to the coalition's comments on the Final EIS, Smart Mobility indicated that the results of the study were not dramatically impacted by the use of model version 2.1C or 2.1D, as it originally had stated ("the ranking of alternatives probably would be the same with either model." (p.11, Statement of Norman Marshall, President of Smart Mobility, attached to comments submitted by a coalition of environmental groups on 3/23/06). FHWA's expert, Dr.

Spear, similarly concluded that “although a newer version of the MWCOG model set has since been approved, I don’t believe that any of the enhancements incorporated into the newer model would significantly change the ranking of alternatives in the EIS.”

Another dispute involved the methodology for modeling induced development. The Lead Agencies used the latest MWCOG approved cooperatively adopted set of land use inputs (Round 6.3) available at the time the travel demand modeling began. Smart Mobility commented that the Lead Agencies should have also used later versions of the land use forecasts (Round 6.4 and Round 6.4A) because they more accurately represent employment forecasts. In response, the Agencies performed a sensitivity test using the adopted Round 6.4A forecasts, but not on Round 6.4. The sensitivity test determined that the results that led to the identification of the Selected Alternative would not have changed with Round 6.4A. See *Section IV.J.4.i* (Pages IV-386 to IV-389) of the Final EIS. However, Smart Mobility States that this sensitivity test was inadequate because it did not re-compute the traffic forecasts for the No-Action Alternative using the Round 6.4 baseline population and employment forecasts. The Agencies did not apply the sensitivity test to Round 6.4 for two reasons, (1) it was never adopted by the region as an appropriate land use forecast and (2) no small area breakdown of land uses was ever approved, which would have been needed to use the travel forecasting model. Dr. Spear’s review of this issue concluded that:

[T]he Round 6.4 land use forecast did not reflect a land use forecast exclusive of the ICC, and consequently is not a valid basis for comparing the land development impacts of the ICC against a ‘no build’ alternative, as suggested in the coalition letter. Moreover, the Round 6.4A forecast represents the most current approved land use forecast for the MWCOG planning area, and therefore provides a reasonable basis for testing the sensitivity of the alternatives to changes in land use.

More detail can be found in *Attachment F* to this ROD, in the volume accompanying this ROD entitled “Record of Responses to Public Comments,” and in the Lead Agencies’ project files.

The FHWA also considered Smart Mobility’s challenge to the Lead Agencies’ interpretation of the traffic data in terms of measuring how well each alternative addresses the ICC purpose and need. Specifically, Smart Mobility asserted that (1) projected improvements in mobility would be offset by an increase in vehicle miles traveled in the Study Area; (2) the modeling used to estimate induced development was flawed; and (3) that the project should but would not provide congestion relief to the Capital Beltway. Dr. Spear evaluated these claims for FHWA also. In response, Dr. Spear concluded that:

- (1) The underlying argument in these alternative interpretations of traffic impacts is whether increased travel volume (i.e., VMT) is treated as a benefit or a cost...from an economic and transportation planning perspective, increased mobility in the form of more trips and greater choice of destinations, should be treated as a benefit. The negative consequences of this additional travel (i.e., increased energy use and mobile source pollution) are accounted for using other impact measures.
- (2) The approach taken by the ICC Study team – to convene an expert panel of land use stakeholders to reach consensus on the impacts of the transportation project on land development in the corridor – is consistent with current transportation planning practice and (3) comparison of traffic impacts on the Capital Beltway is largely irrelevant, because the origin-destination flows served by the ICC are not the same as those served by the Capital Beltway, as discussed in the EIS analysis.

Dr. Spear’s review is appended to this ROD in *Attachment F*.

V. RATIONALE FOR THE SELECTED ALTERNATIVE

The build Alternatives and options studied in detail each addressed the ICC purpose and need in varying degrees, and each would have impacted different aspects of the Study Area’s environment. FHWA weighed these benefits and impacts and also considered the No-Action Alternative. While the measures used in the Final EIS to compare mobility performance, safety

benefits and environmental impacts were important considerations, no single measure alone was determinative. Instead, an accumulation of factors led FHWA to approve the selection of Corridor 1 over Corridor 2 or the No-Action Alternative. The advantages and disadvantages of each Alternative are listed in *Section VII.D* (Pages VII-88 to VII-93) of the Final EIS. The key factors considered in deciding to approve the preferred alternative are discussed below.

A. Impact on Local Land Use Planning Objectives

Land use planning objectives have played an important role in the development of the Study Area. Local land use objectives have been developed and refined over a period of several decades, through a process that balances the need for residential development, environmental protection, transportation mobility, and many other factors. In Maryland, these local objectives are reinforced by State legislation that seeks to focus development in areas that have been planned for growth, by concentrating capital investments – such as transportation infrastructure – in those areas.⁸ As further explained below, FHWA has given significant weight to these land use objectives in making its decision among the build alternatives for this project.

Land use planning in the Study Area is carried out by the M-NCPPC. M-NCPPC is a bi-county agency created by the State of Maryland in 1927 to prepare and administer a General Plan for the physical development of Montgomery and Prince George's Counties, and to acquire, develop, maintain and administer a regional system of parks within the two counties. Operating in its dual role as land use planner and steward of the counties' public parks, in 1964 M-NCPPC developed a comprehensive General Plan laying out a carefully coordinated mix of development, transportation, recreational resources, and natural settings. In the years since, the ICC Study Area has in fact developed in a manner largely consistent with the 1964 General Plan. The M-

⁸ For discussion of the role of the State's Smart Growth legislation in the Section 4(f) Evaluation see Section VII.L.6 of this ROD.

NCPPC has guided land use by developing and periodically updating large and small scale plans; through subdivision, site plan, and government capital project reviews; by administering the County zoning ordinance; and by evaluating environmental resources for protection by historic designation or park acquisition. M-NCPPC's comprehensive system of land use planning outlined above has been held up as a national model of effective local planning.

During the ICC study, M-NCPPC submitted compelling testimony that a future east-west highway located generally along the alignment of the Selected Alternative was a fundamental premise underlying the deliberate patterns of suburban development and the establishment of parklands within the Study Area over nearly five decades:

One of the Commission's founding missions in 1927 was to extend the stream valley park system being developed in the District of Columbia. Over time, the Commission has established a robust system of stream valley parks throughout [Montgomery] County. Most streams in the County run from north to south. Any travel going east to west requires crossing stream valleys. Since the Commission's founding, an integration of parkways and highways within and across the agency's park system has always been a necessary component of land use vision for the County.

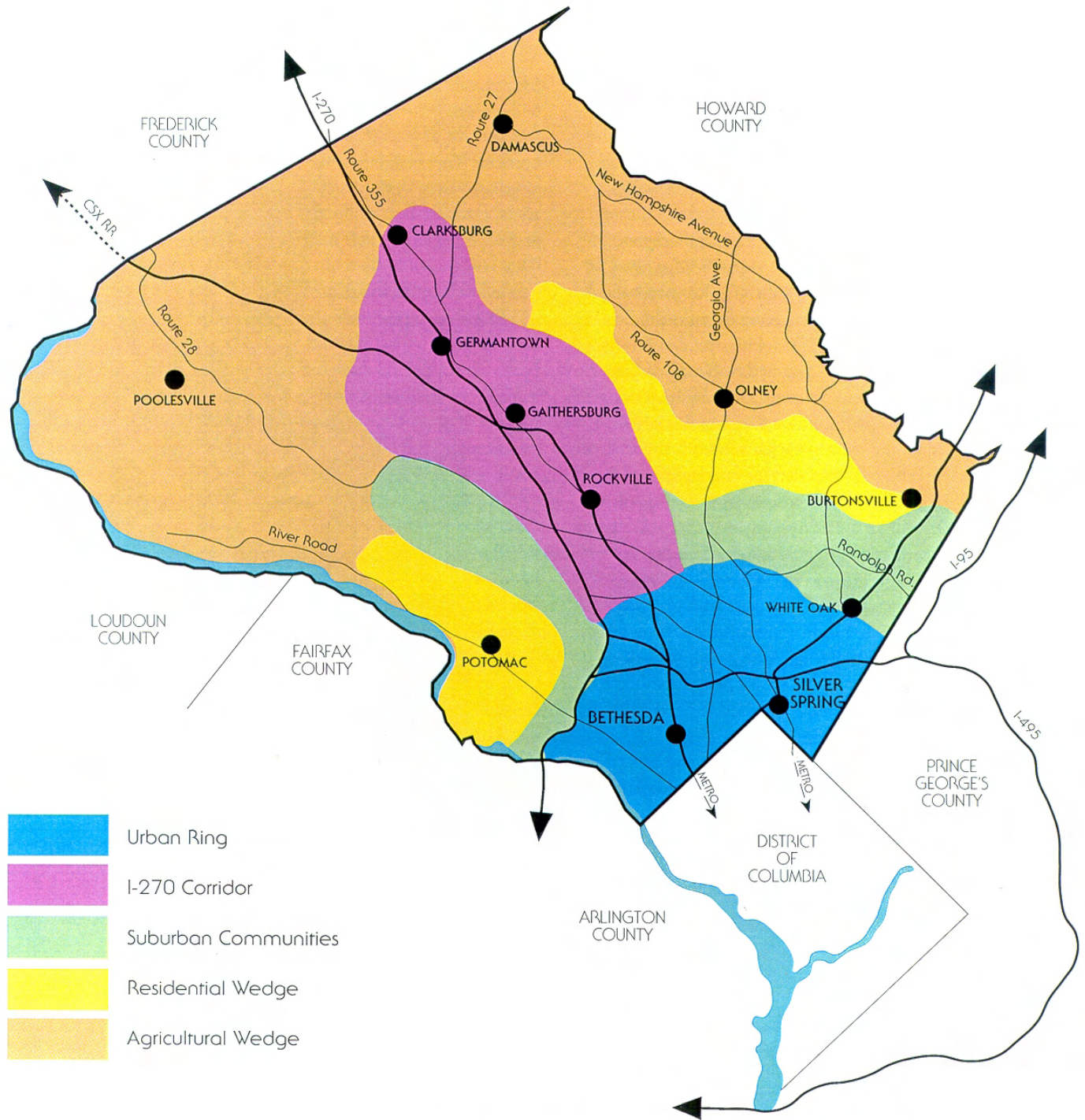
The County's master plans have, over time, been refined to maintain currency in the integration of transportation and park needs. For nearly 50 years the County's master plans have consistently retained an east-west highway to connect the I-270 and I-95 corridors. * * * In 1964, M-NCPPC adopted the General Plan (On Wedges and Corridors) that features low density wedge areas along Montgomery County's northern boundary. The Intercounty Connector as earlier identified in the master plan of highways was largely incorporated into the General Plan, and today's existing ICC right-of-way has been established in coordination with planned land use per the General Plan, recognizing the desire to minimize impacts to the "wedge" areas. To that end the ICC was established to serve the more developed suburban ring communities and was not located in the northern "wedge" area of the County. * * *

The Board's success as a planning agency is measured by the consistent implementation of long-term planning goals, reflected in the County's master plans. * * * Because the Board and Council have planned for the ICC through a long-term master planning process, I cannot emphasize strongly enough our commitment to seeing the ICC adhere substantially to the master plan alignment. Any alternative alignment would contravene this agency's 40-year old General

Plan, as updated and refined over the course of time through subsequent approved and adopted localized master plans, and violate Montgomery County's most fundamental planning principles.

Letter of 10/25/04, reproduced in *Appendix B* (Pages 209-210) of Final EIS. The northern "wedges" referred to by M-NCPPC are depicted in *Figure 7*. The wedges are designated and zoned for agriculture and rural low-density cluster development. The map in *Figure 8* illustrates the lower density of the northern area, and also supports M-NCPPC's characterization that the area around Corridor 1 is largely built-out or is parkland, with the exception of the highway corridor designated for the ICC.

The FHWA believes the most significant factor that distinguishes the Selected Alternative from Corridor 2 is that it upholds the consistent, long-term local planning objectives of the Study Area. Consistency with local planning is more important here than is sometimes the case because M-NCPPC's planning process is designed in part to identify and protect important environmental resources, and in this case the planning agency is also the steward of many of the natural resources (e.g., the parks) that are impacted by the Selected Alternative. In addition, Montgomery County has a demonstrated track record of adhering closely to its comprehensive planning framework over a period of decades. FHWA has been advised that substantial deviations from the plan could lead to property owner challenges that, if successful, could invalidate major components of the comprehensive plan, with substantial attendant adverse environmental consequences. FHWA considers that these facts warrant giving considerable weight to consistency with local planning processes in the decision making process for the ICC. This is consistent with longstanding statutory direction that FHWA consider the disruption of desirable community and regional growth in its decision making. See 23 U.S.C. § 109(h)(5).



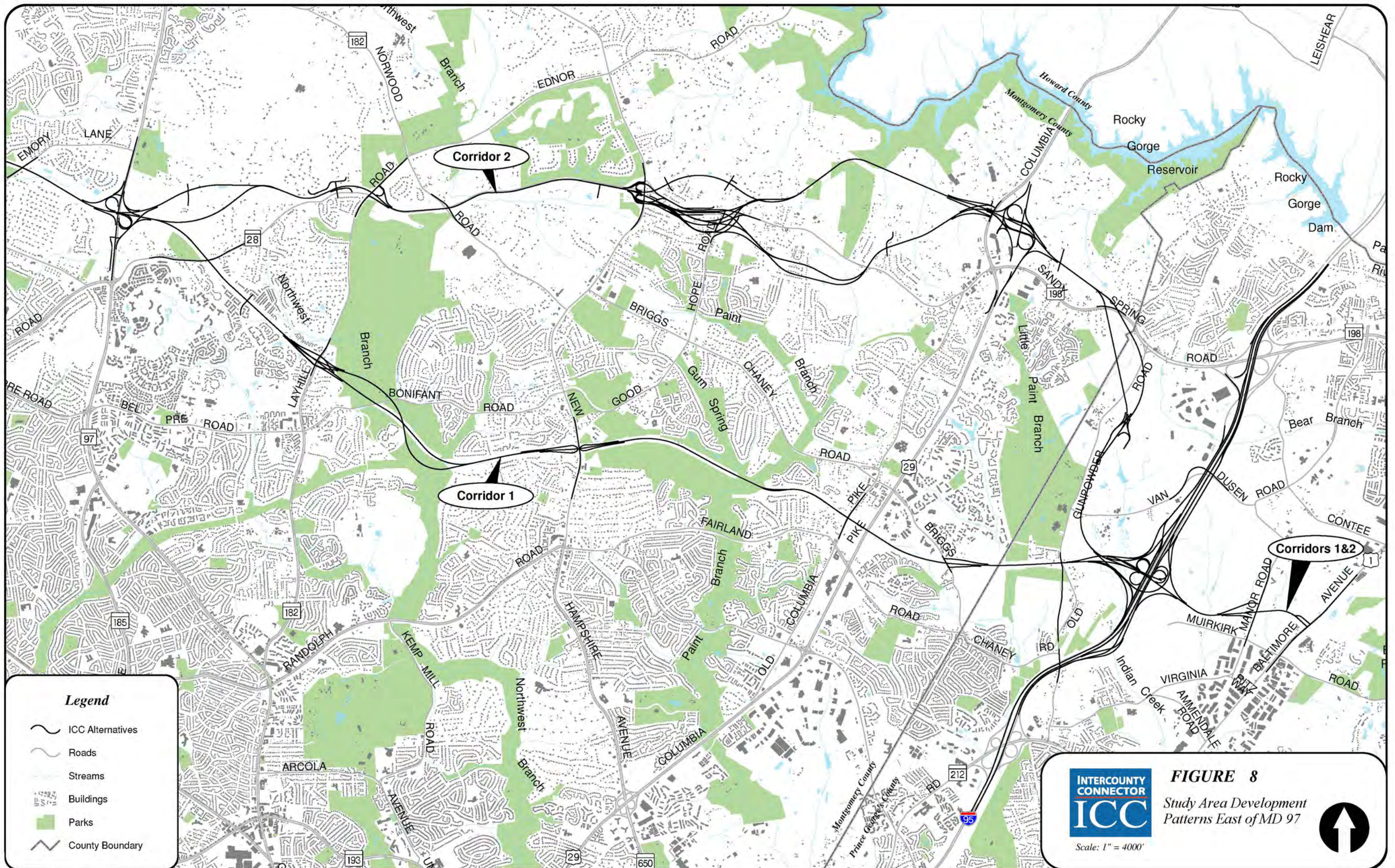
Place names are identified for geographic reference only

Source: M-NCPPC Montgomery County General Plan Refinement, Approved and Adopted, 1993 and General Plan, 1964



FIGURE 7
Montgomery County
General Plan





This situation also differs dramatically from projects where a transportation facility is proposed without actively taking into account the sensitive parkland resources in its path. Here, the M-NCPPC created a comprehensive planning vision, blending together development, transportation and parks. This vision has been subject to public review and awareness over decades and has consistently been affirmed by the park owner to maintain the concept of an east-west transportation route to serve residential and commercial development. Moreover, the M-NCPPC has taken aggressive steps to implement approved planning goals, especially through the acquisition of parkland in the Study Area and, at the same time, through preservation of vast stretches of the County from development. In fact, in Montgomery County more than 40 percent of the land area is protected from development under one program or another, and over 32,000 acres of the protected area is parkland that was established and is maintained under M-NCPPC's jurisdiction. M-NCPPC clearly explained that the ICC is "a long-planned highway that has, to some extent, had both a park system and a set of communities developed around it as planned." Letter of 5/2/05, reproduced in *Appendix B* (Pages 210-212) of Final EIS.

In M-NCPPC's view, any variation of Corridor 2 "invades an area of rural history and character. As the roadway diminishes the area's rural history and character, the new unplanned interchanges invite inevitable requests for increased zoning and the provision of public sewer service in the now rural area of the County." M-NCPPC's view is consistent with the analysis in the Final EIS, which noted that portions of Corridor 2 would be located within and have direct impacts upon the County-designated Agricultural Reserve (part of the protected "wedge" areas of the County), and estimated that Corridor 2 would also likely result in approximately 441 more acres of secondary development within the rural agricultural wedge than the Selected Alternative. See *Section IV.K.8* (Page IV-415) of Final EIS. The Montgomery County

Department of Economic Development, the agency that promotes agricultural businesses and oversees the preservation of agricultural land in Montgomery County, also strongly supported the Selected Alternative as being less harmful to agricultural interests than Corridor 2. See letter of 12/20/05, reproduced in *Appendix B* (Page 214) of Final EIS.

A few comments were submitted in response to the Final EIS espousing a different view than M-NCPPC, for example, asserting that the northeastern portion of the agricultural wedge that would be crossed by Corridor 2 is of less importance to land use planning in Montgomery County since the northwestern wedge area has been more extensively protected by preservation easements. However, M-NCPPC's General Plan and all of its local master plans formally designate the northwestern and northeastern areas as equal parts of the agricultural wedge, and they are protected by the same set of zoning rules. Given that the northeastern area has less extensive preservation easements in place, one could conclude that this area is even more vulnerable to incompatible development than in the northwestern areas. In any case, it should also be noted that the agricultural wedge has remained a protected resource for over a quarter of a century, despite enormous growth in the area⁹. While FHWA is not the arbiter of local development goals, FHWA does recognize the officially adopted land use visions for future development, the park system, and the transportation system as reflected in M-NCPPC's letters and planning documents.

The link between local master planning and zoning control is the single most important tool that local jurisdictions have to influence the pattern and pace of growth. Corridor 2 would have been a heavy blow in this respect. This is because both M-NCPPC and the Montgomery County government indicated that constructing Corridor 2 would have called into serious question an enormous number of settled zoning and land use decisions in the Study Area under

⁹ Montgomery County is approaching 1,000,000 residents.

Maryland's "change or mistake" zoning rule. This zoning rule provides for individual rezoning of properties upon a showing of a substantial change in the character of the neighborhood. Since Corridor 2 crosses areas zoned for low-density and rural cluster housing and less transportation infrastructure, construction of the ICC along Corridor 2 clearly constitute a substantial change in the character of the surrounding area and, regardless of previous local decisions reflected in the County master plans, growth could occur in areas never planned for development. For a more detailed discussion, see *Section IV.D.3* (Page IV-96 to Page IV-100) of the Final EIS. The Prince George's County Director of Public Works and Transportation likewise noted that the Selected Alternative is consistent with relevant Master Plans and that Corridor 2 would adversely affect the proposed Konterra community project, a major planned development center along I-95. See Letter of 2/7/05, *Appendix R-5* (Page 15) of Final EIS.

The FHWA also considered that M-NCPPC's comprehensive planning is consistent with Maryland's Smart Growth laws, which since 1998 have channeled State capital project investments into developed areas, rather than rural areas without infrastructure, as a way to manage growth and control urban sprawl. The areas designated for growth are called "priority funding areas," i.e., zones in which development qualifies for State funds. The State's cities are automatic priority funding areas, and every County government designates additional areas that meet specific requirements for land use, public water and sewer service, and residential density.

The Final EIS determined that the No-Action Alternative would do nothing to channel growth into developed areas and would not advance the goals and objectives of Maryland's Smart Growth laws. The Final EIS also determined that the Selected Alternative is preferable to Corridor 2 from a Smart Growth perspective. With the Selected Alternative, 64 percent of the route is located within a priority funding area as compared to only 35 percent of Corridor 2. In

terms of secondary development, Corridor 2 is predicted to result in 44 percent more secondary development outside of priority funding areas than Corridor 1. Finally, the Selected Alternative provides a more effective transportation link between priority funding areas, with only one interchange located outside of the priority funding area compared to four interchanges outside of the priority funding areas for Corridor 2. In sum, both the State agencies with jurisdiction (the Maryland Department of Planning and the Maryland Board of Public Works) and the Final EIS concluded that the Selected Alternative is the ICC Alternative that is most consistent with Maryland's Smart Growth laws. See *Section IV.D.5* (Pages IV-104 to IV-105) of the Final EIS.

Some comments submitted in response to the Final EIS espoused competing visions for how growth should be managed in the Study Area. For example, one interest group expressed that development of the agricultural wedge is inevitable so it makes little sense to distinguish the secondary impacts of the ICC build Alternatives, and that the wrong methodology was used to estimate land development impacts in the project's secondary and cumulative effects analysis. In response, FHWA had its own national planning experts review the methodology used to forecast future land use by the study's Expert Land Use Panel. Dr. Frederick Ducca concluded that the land use forecasting "was conducted in a reasonable, unbiased manner, without preordained conclusions being thrust upon it. Overall, the Expert Land Use Panel process [the methodology] seems to have been conducted in a fair and reasonable manner, consistent with the State-of-the-practice in conducting expert land use panels for estimating potential effects of transportation projects." Dr. Ducca's review is appended to this ROD in *Attachment F*.

Some commenters argued that the M-NCPPC's General Plan was not foresighted enough and should have embraced more "balanced" transit- friendly, development. A review of aerial photography of the Study Area reveals that the existing suburban development consists largely of

cul-de-sac subdivisions with little connectivity between adjacent developments. While it can be argued that such developments are auto-dependent and not rail transit friendly, many heavily populated areas of the two counties south of and within the southern portion of the Study Area (e.g., Silver Spring, Wheaton, Glenmont, Bethesda, Rockville, Shady Grove, and Greenbelt) have existing and planned high-density developments near numerous transit stations. Several initiatives in SHA's long-term regional transportation plans further encourage transit-oriented development in appropriate areas (i.e., areas planned for high density). However, replacing large areas of the existing development in the Study Area is not a viable alternative to the ICC.

The FHWA believes, in large part, that passions stirred on the topic of land use simply reflect the importance and prominence of land use planning in the two counties. Throughout the EIS study, planning staff, elected officials, community groups and individual citizens alike highlighted the sophisticated local planning process and how it functions to protect environmental resources as it balances other vital community needs. As a more specific example, most comments submitted from citizens impacted by the Rock Creek Option C portion of the Selected Alternative pointedly noted that Option C is a deviation from the local Master Plan for their community.¹⁰ Similarly, citizens writing in favor of the Selected Alternative frequently noted either that they had purchased their home in reliance upon the highway's eventual construction, or alternatively, that homeowners adjoining the planned route knew, or should have known, at the time of their purchase that the highway was planned for that location.¹¹ Whatever their position, the fact that the public should be able to, and can, rely on the long-range plans when deciding where to purchase a home is extremely important.

¹⁰ This issue is addressed in detail on pages 81 to 85 of this ROD.

¹¹ Sec. 40-10 of the Montgomery County Code requires notice of, and an opportunity to review, area Master Plans as a prerequisite to all real estate closings. This law has been in place since 1974, effectively putting the public on notice regarding planned infrastructure, such as the ICC, to service private development.

This is not to say that the Selected Alternative was chosen merely because it was included in local planning documents for a long time. To the contrary, in search of an alternative to the planned corridor that could both avoid environmental impacts and at the same time satisfy the project transportation needs, the Lead Agencies fully developed 13 options in the EIS that could be combined into 72 different alignments for Corridor 2, despite the sparse public support expressed in favor of Corridor 2. Only after this exhaustive search was Corridor 1 identified as the preferred alternative. The Lead Agencies also carefully considered a series of non-highway alternatives suggested by a coalition of environmental groups. See *Appendix R-9* of the Final EIS and a more detailed discussion on pages 34 to 35 of this ROD.

B. Ability to Meet the Transportation Needs Identified for the Project

One of the FHWA's core responsibilities is to ensure that Federally-funded highways will "adequately serve the existing and planned future traffic of the highway in a manner that is conducive to safety, durability, and economy of maintenance" and "to conform to the particular needs of each locality." 23 U.S.C. § 109(a). Accordingly, another distinguishing factor in FHWA's decision to approve the Selected Alternative was the relative ability of each alternative to meet the transportation needs that were identified for the project. For the ICC project, three elements of the purpose and need are related to transportation: (1) improving safety and mobility¹² in the Study Area, (2) increasing the movement of goods and people between designated economic centers; and (3) advancing homeland security in the Study Area, which is located approximately 10 miles outside of Washington, D.C. These transportation needs are explained in detail in *Section I.B* (Pages I-1 to I-3) of the Final EIS.

¹² Mobility is defined as the ability to reach a destination in a time and cost that is satisfactory to the traveler.

1. Quantitative Measures

The Final EIS evaluated the transportation performance of the alternatives by comparing eight quantitative measures of effectiveness related to the three transportation needs. The eight measures compared were: (1) the mobility provided by each alternative as demonstrated by screenline volumes; (2) travel times expected in the year 2030 for 100 representative east-west trips; (3) the expected accessibility to jobs for people living in the Study Area within a 45 minute commute in the year 2030; (4) expected levels of express bus ridership in the year 2030; (5) expected average daily traffic volumes on local roads in the year 2030; (6) expected intersection congestion in the Study Area in year 2030 as expressed by Levels of Service; (7) expected duration of intersection congestion in the Study Area in the year 2030 as expressed by hours at capacity; and (8) safety. See *Section IV.J and VII.C.1* (Pages IV-338 to IV-389 and VII-30 to VII-40) of the Final EIS. Data collected in these categories demonstrated that while either of the build Alternatives would provide vital improvements over the extreme congestion expected with the No-Action Alternative, the Selected Alternative significantly outperforms Corridor 2 for three of the eight measures, performs slightly better for one measure, and was similarly effective for the other four measures.

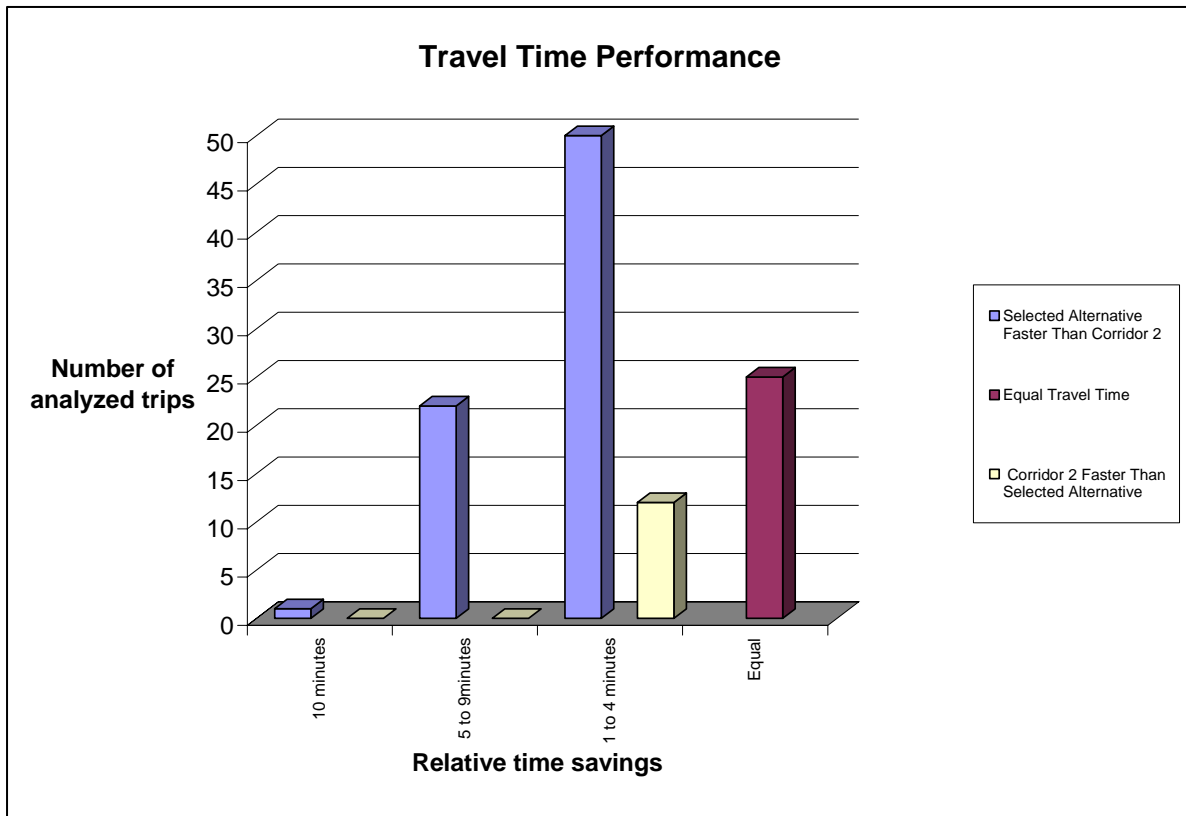
A summary of the analysis for each of the eight quantitative measures for meeting the transportation elements of the purpose and need shows that:

1. **Mobility provided by each Alternative as demonstrated by screenline volumes** –Six north-south screenlines measured the total 2030 east-west traffic volume at four locations. The analysis showed that the Selected Alternative will facilitate increased east-west throughput for as many as 85,000 more vehicles per day than the No-Action Alternative. Between MD 97 (Georgia Avenue) and west of I-95, where the Selected Alternative and Corridor 2 are on different alignments, the Selected Alternative will carry 40 to 80 percent more vehicles per day than Corridor 2. These significant increases in volume demonstrate that the Selected Alternative clearly provides the greatest amount of east-west mobility for people desiring to travel across the Study Area. The Selected Alternative provided greater volumes than Corridor 2 at 5 of the 6 screenline locations.

For a more detailed discussion, see *Section IV.J.4.a* (Pages IV-351 to IV-354) of the Final EIS. Corridor 1 significantly outperforms Corridor 2 on this measure.

- Travel times expected in the year 2030 for 100 representative east-west trips** – The analysis of 100 representative east-west trips showed that the Selected Alternative will dramatically reduce travel times¹³ compared to the No-Action Alternative, and the Selected Alternative also performs better than Corridor 2. The travel time savings are illustrated in *Figure 9*. When these time savings are multiplied by the number of travelers driving the ICC, the Selected Alternative saves travelers a collective 3,000 hours of time every peak hour of every weekday compared to the No-Action Alternative. This is 400 more hours of time savings each weekday peak hour than with Corridor 2, which is a significant transportation benefit. For a more detailed discussion, see *Section IV.J.4.b* (Pages IV-354 to IV-358) of the Final EIS. Corridor 1 significantly outperforms Corridor 2 on this measure.

Figure 9



¹³ Travel times were reduced as much as 22 minutes, which is the time savings for a trip from Gaithersburg to BWI Thurgood Marshall Airport with the Selected Alternative in the year 2030.

3. **The expected accessibility to jobs for people living in the Study Area within a 45-minute commute in the year 2030** – Both build alternatives satisfy this element of the purpose and need. However, thirty percent more jobs (over 49,000) are accessible within a 45-minute commute from the Study Area if the ICC were located along the Selected Alternative as compared to Corridor 2. Three times as many jobs (156,000 more) are accessible with the Selected Alternative as compared to the No-Action Alternative. For a more detailed discussion, see pages IV-358 to IV-359 of the Final EIS. Corridor 1 significantly outperforms Corridor 2 on this measure.
4. **Expected levels of express bus ridership in the year 2030** – The ICC, a multimodal highway, will have east-west express bus transit, a needed service that the existing highway network cannot accommodate. The Selected Alternative would attract 4,400 new express bus transit trips, which is 2,400 more express bus trips per day than Corridor 2. With the No-Action Alternative, there would not be any express bus service across the Study Area. For a more detailed discussion, see *Section IV.J.4.d* (Pages IV-359 to IV-361) of the Final EIS. Corridor 1 slightly outperforms Corridor 2 on this measure.
5. **Expected average weekday daily traffic volumes on local roads in the year 2030** – This criterion assessed both the number of trips that would be made on the ICC and the number of vehicles diverted off of local arterial roadways onto the ICC with each alternative. In general, the analysis found that the main east-west roads in the Study Area will experience more than a ten percent reduction in average weekday daily traffic with any build alternative, but north-south Study Area roads with an ICC interchange will experience increased volume due to travelers accessing the ICC. This effect is greater with Corridor 2, for which 14 miles of local roads would see increased volume, versus the Selected Alternative, which will result in 12 miles of local roads with increased volume. With either build alternative, a total of 50 miles of local roads will experience reduced volumes in the year 2030 as compared to the No-Action Alternative. FHWA considers the Selected Alternative and Corridor 2 similarly effective for this measure. For a more detailed discussion, see *Section IV.J.4.e* (Pages IV-361 to IV-362) of the Final EIS. Corridor 1 and Corridor 2 are similarly effective on this measure.
6. **Expected intersection congestion in the Study Area in the year 2030 as expressed by Levels of Service** – An analysis of intersection congestion in the Study Area showed that both build Alternatives would provide significant congestion relief in the form of “Level of Service” improvements as measured by improved volume to capacity ratios. These improvements also show that the Selected Alternative would perform only slightly better than Corridor 2, particularly in the center of the Study Area where the two proposed corridors diverge. FHWA considers the Selected Alternative and Corridor 2 similarly effective for this measure. For a more detailed discussion, see *Sections IV.J.4.f and VII.C.e* (Pages IV-362 to IV-383 and VII-36 to VII-39) of the Final EIS. Corridor 1 and Corridor 2 are similarly effective on this measure.
7. **Expected duration of intersection congestion in the Study Area in the year 2030 as expressed by hours at capacity** – The analysis looked at 29 badly congested intersections in the Study Area. These 29 intersections are expected to operate under

congested conditions for a total of 217 hours per day in 2030 with the No-Action Alternative. This total was then compared to the total hours at capacity for the same intersections with each build alternative. The result shows how much each build alternative will reduce peak hour spreading at these already congested intersections. Both build alternatives were found to reduce the hours of congestion by about 25 percent and FHWA considers the two to be similarly effective for this measure. For a more detailed discussion, see *Section IV.J.4.g and VII.C.1.e* (Pages IV-380 to IV-384 and VII-36) of the Final EIS. Corridor 1 and Corridor 2 are similarly effective on this measure.

8. **Safety** - The analysis calculated the relative total crash rates on Study Area roads in 2030 for each alternative. As a result of its controlled access design, travelers on the ICC are expected to experience a crash rate of less than 50 crashes per 100 million vehicle miles of travel (MVMT). By comparison, the crash rates on many local roads in the Study Area currently exceed 300 crashes per 100 MVMT. The overall crash rate for the Study Area in 2030 is expected to be 195 crashes per 100 MVMT with the No-Action Alternative, compared to 161 crashes per 100 MVMT with the Selected Alternative and 163 crashes per 100 MVMT with Corridor 2. When compared to the 2,605 MVMT in 2030 on the Study Area roads under the No-Action Alternative, there will be 3,144 MVMT with the Selected Alternative, and 3,076 MVMT with Corridor 2. Despite this twenty percent increase in travel due to increased mobility and reduced congestion compared to the No-Action Alternative, the total number of crashes in 2030 is still expected to decrease with either build alternative: 5,085 total Study Area crashes per year are expected with the No-Action Alternative, 5,075 total crashes with the Selected Alternative, and 5,002 total crashes with Corridor 2. This reduction will be achieved since 700 MVMT and 689 MVMT, respectively for the Selected Alternative and Corridor 2, will be utilizing the safer ICC that will have a relatively lower crash rate. For more detailed discussion, see *Section IV.J.4.h-i* (Pages IV-384 to IV-386) of the Final EIS. The FHWA believes that this safety analysis demonstrates that both build alternatives would be similarly effective at improving safety on Study Area roads. Corridor 1 and Corridor 2 are similarly effective on this measure.

2. Homeland Security

A qualitative comparison was made of the relative ability of each alternative to address the homeland security element of the purpose and need. The analysis showed that both build alternatives would improve homeland security, with a slight difference in favor of the Selected Alternative. With regard to homeland security, both of the build alternatives would result in a new, limited access highway connecting I-270 and I-95/US 1 and interchanges with several major north/south roads north of the Capital Beltway. Both alternatives would also enhance and

improve access to emergency services, and both would create an additional limited access link in the metropolitan Washington area highway grid for potential evacuation or response efforts.

The Selected Alternative, however, would provide greater overall capacity in the transportation network. Existing Norbeck Road Extended and the proposed MD 28/198 improvement will provide a high-performing link across the northern portion of the Study Area. Constructing Corridor 2 would require eliminating the existing Norbeck Road Extended and would preclude the proposed MD28/198 improvement. The elimination of this link would also have negative consequences for congestion, travel choices in adjacent areas, and redundancy for incident management. The No-Action Alternative would not have resulted in any improvement in homeland security. For more detailed discussion, see *Section VII.C.1.a and d* (Pages VII-29 to VII-30 and VII-34 to VII-36) of the Final EIS.

3. Summary of Transportation Needs

FHWA has concluded that both Corridors 1 and 2, at some level, meet at least a significant portion of the transportation needs for this project. However, the Selected Alternative provides significantly greater mobility across the Study Area. The Selected Alternative also provides greater transportation benefits in terms of time savings for travelers, enhanced transit usage, lower crash rates, and greater access to jobs within a reasonable commute.

C. Environmental and Natural Resources Impacts

The environmental consequences of each alternative and option were carefully studied, and are described in detail in *Chapter IV* of the Final EIS. In order to make an easier comparison between the numerous possible Corridor 2 alignments, the Lead Agencies identified

the two combinations of Corridor 2 options that best minimized harm to Section 4(f) properties¹⁴. The environmental consequences of the Corridor 2 preferred alignments, denoted as Corridor 2AX and 2DB, were then compared to Corridor 1 to identify the preferred alternative, which was determined to be Corridor 1. See *Section VII.B and Section VII.C-D* (Pages VII-4 to VII-28 and VII-48 to VII-93) of the Final EIS. The comparison of environmental consequences of the Selected Alternative and Corridors 2AX and 2DB is summarized in *Table 1* and discussed below.

The Final EIS concluded that both build alternatives would result in significant impacts to Study Area resources, including aquatic resources, forests, communities, and historic properties. The Federal, State and local resource agencies differed in their qualitative analysis of those potential impacts, reflecting, in part, the value placed on the resources under the jurisdiction of the commenting agency.

1. Impacts to Historic Resources

The Selected Alternative will result in far less harm to historic properties than Corridor 2. All build alternatives and options would adversely affect Cashell Farm, a 333-acre historic agricultural property and farmhouse dating from 1860 that is proposed for a housing development, and Willow Grove, an 8.94-acre historic farm complex constructed in phases beginning in 1830.¹⁵ The least harmful Corridor 2 alignments would adversely affect Amersley, a 2-acre historic site with an 1886 farmhouse and 2 contributing outbuildings; the Holland Store and James Holland House, a 97.6-acre historic site largely preserved as parkland containing a distinctive example of a historic crossroads store and associated shopkeeper's house

¹⁴ Section 4(f) properties are certain parks, wildlife refuges, and historic sites protected under Section 4(f) of the Department of Transportation Act, which is codified at 23 U.S.C. § 138 and 49 U.S.C. § 303. Section 4(f) requirements are discussed on page 89 of this ROD.

¹⁵ The Selected Alternative, which passes 600 feet from Willow Grove, is less harmful than Corridor 2. Corridor 2 had two options in the area of Willow Grove, passing 100 and 350 feet from the historic site.

and barn, also important as the gateway to historic Sandy Spring; Llewelyn Fields, an 8-acre historic site with an 1810 brick manor house and meathouse/dairy that was one of the most successful 19th century plantations in Montgomery County; Alloway Site and Cemetery, a 25-acre farmstead property with architecturally important buildings and a historic association to the settlement and agricultural development of Montgomery County; Columbia Primitive Baptist church, a 2-acre historic church and cemetery dating from 1880; and the Issac Burton, Jr. House, a log farmhouse built in 1800 with architecture representative of early house construction in Maryland.

Corridor 2AX would also have adversely affected the Free Methodist Church Camp Meeting Ground, an 11.9-acre unique historic site and historic cultural landscape that is the only remaining example of its kind in Maryland or Virginia. This property has been in continuous use as a church meeting ground since at least 1908, and retains considerable integrity of location, feeling, setting, and association to relay the sense of a traditional American camp meeting. The Final EIS includes detailed information on the Free Methodist Church Camp Meeting Ground and the extensive efforts of the Lead Agencies to minimize harm to this property (See Pages IV-119 to IV-120, V-35 to V-36, V-47 to V-48, V-56 to V-59, and V-154 to V-157 of the Final EIS). The Selected Alternative is located two miles south and therefore does not impact the Free Methodist Church Camp Meeting Ground.

The adverse effects to the historic sites are described in detail in *Section IV.E* (Pages IV-106 to IV-131) of the Final EIS. The Corridor 2 alignments would have also taken small portions of the Holland Store and James Holland House as well as the Alloway Site and Cemetery properties, as described in *Section V.F.4* (Pages V-53 to V-55) of the Final EIS. The Selected Alternative will not take any property from any historic sites. The Maryland Historic

Trust – the government agency charged with protecting historic resources in Maryland pursuant to the National Historic Preservation Act – advised that “considerably greater impacts to cultural [historic] resources occur along Corridor 2.” See Letter of February 16, 2005, page 1 of *Appendix R-4* to the Final EIS. Although the extensive impacts of Corridor 2 to historic resources can be minimized, FHWA took into account that the impacted historic sites can not be mitigated with replacement land or resources in the same manner as the parklands in the Study Area.

2. Impacts to Aquatic Resources

Water quality impacts between the Selected Alternative and Corridor 2 are difficult to compare because of the starkly different type of water resources impacted. The Selected Alternative would have the greatest direct impacts to tributaries of the Paint Branch, a high-quality stream of great significance to some citizens, who have formed a group (the “Eyes of Paint Branch”) to protect the stream. From a fisheries perspective, Paint Branch is unique in the region because it supports a naturally reproducing population of brown trout, leading Montgomery County to take a number of actions to protect the water quality of Paint Branch. In comparing the impacts of the Alternatives, FHWA considered that the brown trout is not a native species; the species is not designated as endangered, threatened, or rare; and few brown trout have been found in Paint Branch during the past decade of monitoring by the County.

Concerns were raised that stormwater discharged from Corridor 1 will raise the temperature of Paint Branch to a degree that brown trout could not survive. In response, the Lead Agencies have incorporated several significant mitigation measures into the Selected Alternative: the road profile was raised to allow stormwater to be redirected to Northwest Branch; the first flush of heated stormwater from the existing Montgomery County Maintenance

Depot will be treated and similarly redirected; and a linear stormwater management system will be installed to treat, store, cool, and infiltrate highway stormwater. These measures are expected to minimize any impacts to the brown trout from the ICC. In comparison, most Corridor 2 options also cross Paint Branch, at the sensitive headwaters area, but would avoid crossing the best spawning area for the brown trout.

Only the Corridor 2 alternatives would have direct and secondary wetland, stream and floodplain impacts in the Rocky Gorge watershed and direct and secondary impacts to the Rocky Gorge Reservoir, which supplies the drinking water of more than a half million homes. The local agency charged with protecting the public drinking water supply indicated its view that the reservoir is a non-renewable resource and it would be seriously threatened by Corridor 2. See letter of 2/2/05, *Appendix R-5* (Pages 18 to 23) of the Final EIS. These impacts include a very small, but nonetheless significant, risk of catastrophic harm to the Rocky Gorge Reservoir. The EIS did not identify any means to completely eliminate the risk associated with Corridor 2. The FHWA considers this risk as a factor weighing in favor of the Selected Alternative

An easier comparison is made of impacts to wetlands and floodplains. The Selected Alternative impacts less wetland and less floodplain than Corridor 2, but the wetlands impacted by the Selected Alternative are clearly of generally higher quality in terms of functions and values. This was a significant concern that required enormous attention by the Inter-Agency Working Group to develop adequate avoidance, minimization, and mitigation measures. In dozens of locations, the planned highway was shifted, narrowed, or otherwise modified in order to avoid or minimize impacts to wetlands. For more detailed information, see *Appendix N* of the Final EIS. A large portion of the mitigation for the Selected Alternative, including not only the ten bridges but the length and height of those bridges, was developed in order to minimize the

wetland, floodplain, and related natural resource impacts. In the Northwest Branch Stream Valley Park, an alternative alignment option was developed and adopted as part of the Selected Alternative in order to minimize impacts to aquatic resources, including wetlands and floodplains.¹⁶ Ultimately, the USACE will pass judgment on the adequacy of the proposed wetland mitigation through its Section 404 permit decision.

3. Impacts to Forests and Wildlife

The quantity of forest impacted would be greater under the Selected Alternative than with Corridor 2. The Selected Alternative also causes more forest habitat fragmentation, which means that there is more impact to birds and wildlife, although no endangered or threatened species would be impacted. After reviewing the Draft EIS, the DOI's greatest concern with Corridor 1 was the fragmentation of several large, contiguous stands of interior forest, which the DOI initially thought to be irreplaceable in Montgomery County. Importantly, the mitigation package developed for the Selected Alternative has satisfied the DOI's concerns in this regard. The DOI, in their letter dated February 24, 2006 stated:

The mitigation package generously replaces the parkland facilities, resources, and habitats that will be affected by construction of the ICC along Corridor 1.....Based on the measures and mitigations proposed by the Lead Agencies, the Department finds Corridor 1 with Rock Creek Option C and Northwest Branch Option A to be environmentally acceptable.

One group that commented extensively on the Final EIS was especially concerned about several species of State endangered plants growing within and immediately adjacent to the right-of-way of the Selected Alternative. Many of these species are located within parkland, including Rock Creek, North Branch of Rock Creek, Northwest Branch and Paint Branch parks.

Throughout the planning process, the Lead Agencies coordinated closely with the

¹⁶ The Northwest Branch Steam Valley Park alignment shift is discussed in detail on pages 102 of this ROD.

Maryland Department of Natural Resources (DNR) and the other environmental resource agencies on the avoidance of rare, threatened, and endangered plant species. It is important to note that DNR has placed special emphasis on the avoidance of State listed species considered either "Threatened" or "Endangered". For these species, additional avoidance efforts were required by and coordinated with DNR. Ranked plant species without a status of Threatened or Endangered are not afforded protection by DNR. The Lead Agencies took into consideration the presence of all rare, threatened, and endangered plant species when evaluating opportunities to avoid or minimize impacts to other natural resources. Resource impacts were unavoidable in some cases. Subsequently, greater emphasis was placed, as directed by the resource agencies, on the protection of resources with Federal or State regulatory requirements such as wetlands, streams, parkland and State listed Threatened or Endangered species.

4. Impacts to Parkland

A significant amount of parkland would be impacted by the Selected Alternative. One of the Corridor 2 alignments, Corridor 2AX, would require the acquisition of significantly less parkland than the Selected Alternative. Parklands are addressed in detail in the Section 4(f) Evaluation (*Chapter V* of the Final EIS) and pages 89 to 131 of this ROD.

5. Impacts to Communities

All Corridor 2 alignments would displace significantly more residences and businesses than the Selected Alternative, with Corridor 2AX having more than twice the number of displacements as the Selected Alternative. Corridor 2AX would also largely destroy the Peach Orchard neighborhood in order to avoid using the Free Methodist Church Camp Meeting Ground historic site, taking 18 of the 27 homes, replacing the country lane fronting the remaining homes with a 10 to 18-foot high noise wall, and making local access to and from the neighborhood

difficult. All Corridor 2 alignments would affect community access for the Llewellyn Fields and Hampshire Greens communities, and would change the rural character and pastoral views of communities in the Spencerville and Burtonsville areas.

The impact of the Selected Alternative on existing communities would be less disruptive in large part because it has been identified on the Counties' General Plans and local Master Plans, allowing existing development to be designed and built to accommodate a highway. Two neighborhoods in the Derwood area, Cashell Estates and Winters Run, would be severely impacted by a decision to build either Corridor 1 or Corridor 2. Those neighborhoods and the Rock Creek Options in that area are discussed in detail on pages 81 to 85 of this ROD.

6. Summary of Environmental Impacts

In conclusion, there are significant environmental impacts associated with every build alternative and option. The FHWA carefully considered the tradeoffs in environmental impacts with Corridors 1 and 2, as well as the ability of the Lead Agencies to mitigate for the different impacts under each alternative. In several instances, the impacts to natural resources are more severe with the Selected Alternative but have been effectively minimized and mitigated. However, the most serious impacts under Corridor 2 are not as amenable to mitigation. Both EPA and DOI stated a preference for Corridor 2 on environmental grounds. However, each agency acknowledged that the many features intended to minimize or mitigate impacts largely addressed their concerns.

Besides impacts to the character and nature of communities along Corridor 2, that alternative would have negative impacts on local roadway capacity and circulation between neighborhoods and public facilities. Specifically, Corridor 2 would displace existing Norbeck Road Extended. This road, a 2.5 mile east-west facility, was completed in December 2002 by

Montgomery County and connects MD 28 with MD 198. It provides a high-performing link across a portion of the northern Study Area¹⁷. Since its opening, Norbeck Road Extended has provided direct access to intersecting streets. Because Corridor 2 would be built directly over this new local road, residents who currently use Norbeck Road Extended would have their access and circulation routes changed for the worse if Corridor 2 were constructed. In addition, the construction of Corridor 2 would preclude the development of proposed improvements to MD 28/MD 198, further reducing mobility and circulation in this area and reducing travel choices for residents. For more detailed discussion, see *Section VII.C.1.a and d* (Pages VII-30 to VII-36) of the Final EIS.

D. Economic Impacts and Benefits

The Selected Alternative would cost slightly more than either of the preferred Corridor 2 alignments. The difference in project costs between the build alternatives are mainly due to differences in design elements to minimize environmental effects, such as longer bridge lengths, along Corridor 1. The overall difference in cost between the Selected Alternative and either of the Corridor 2 alignments (approximately \$90-\$170 million in 2004 dollars) represents about 4.2 to 7.9 percent of the total project cost. Although this difference is significant in isolation, the projected cost disparity between the build alternatives was not a major determinative factor for FHWA because the SHA did not consider the cost difference to be determinative when it selected the preferred alternative. The Federal-aid Highway Program administered by FHWA is primarily a State program -- a State is free to use its discretionary portion of the Highway Trust Fund on the most expensive project alternative if it believes that alternative better meets its purpose and transportation needs.

¹⁷ Analysis of shifting the Corridor 2 alignment either slightly north or south from Norbeck Road Extended showed a substantial and unacceptable increase to Section 4(f) property, wetlands and floodplain impacts.

The EIS study included an analysis of the likely economic benefits of each build alternative. See *Section IV.C.1* (Pages IV-91 to IV-92) of the Final EIS and the Economic Impact Study technical report. This study concluded that the Selected Alternative will provide an estimated \$370 million total user benefits in the year 2030, versus \$310 million with Corridor 2. In its comments on the Final EIS, the coalition of environmental groups alleged that the methodology and conclusions of the economic study were flawed. FHWA notes that the methodology used is similar to that which has been employed for other highway projects. FHWA also found that the study provided useful information to assess the monetary value of the enhanced mobility offered by both build alternatives. However, because significant benefits were demonstrated for either build alternative, FHWA did not consider the conclusions of the economic study a deciding factor in the approval of the Selected Alternative.

Some commenters cited the 1999 Brookings Institution report “A Region Divided, The State of Growth in Greater Washington, D.C.”, and claimed that the ICC will benefit Montgomery County and ignore Prince George’s County. The FHWA has considered this report but notes that it does not mention the ICC at all and it was written prior to the current ICC NEPA study. The Prince George’s County Executive commented that the proposed project will “enhance and support the County’s planned employment and housing growth in the northern tier”, and that the “anticipated growth in the hi-tech community in the I-95 corridor and a new town center [Konterra] in our northern tier will benefit, not suffer, from enhanced travel opportunities and connections to counterparts at the other end of the connector”.

E. Views of Relevant Agencies and the Public

FHWA received comments both in favor and against the build alternatives. Public and agency comments were carefully considered by FHWA. In total, 1,881 people attended four

public hearings, of which 283 provided public testimony, 127 gave private testimony and 357 submitted comment cards. In response to the Draft EIS, 3,800 comment letters were submitted, and in response to the Final EIS, 785 comment letters were submitted. Throughout the public involvement process, a vast majority of the public and public officials that expressed support for the project were in favor of Corridor 1 Alternative (the Selected Alternative). Out of the thousands of comments received, few advocated Corridor 2; those opposed to Corridor 1 more often advocated No-Action. Comments submitted by the public on the Final EIS are summarized on pages 85 to 89 of this ROD. A detailed matrix of all comments received, with the Lead Agencies' responses, are included in the volume accompanying this ROD entitled "Record of Responses to Public Comments."

The public provided several reasons for their support of Corridor 1. The overwhelming reason expressed was frustration with the gridlock in the Study Area as well that this important element of the Master Plan has not been built. They believe that construction of an east-west roadway along large portions of Corridor 2 would attract unplanned development to rural and agricultural upper Montgomery County. Many commented that Corridor 1's impacts on communities would be less disruptive than Corridor 2. Additionally, many citizens in the vicinity of Corridor 2 have stated that they were unaware of Corridor 2 when purchasing their homes and developing their businesses and that their rural quality of life would be negatively impacted. Residents also voiced concern that Corridor 2 would adversely impact the economic and community stability of Montgomery County. Many of these residents and public officials cited strict adherence to the land use planning standards as strongly influencing the economic stability and overall quality of life in Montgomery County, and indicated that Corridor 2 would upset this stability.

Residents located outside of the alternative corridors also expected that the project's limited access points would alleviate regional traffic (particularly truck traffic) and increase safety on their local roads. Additionally, the majority of residents in Montgomery County and western Prince George's County who are not directly impacted by the build alternatives stated that construction of a new east-west connection would decrease their travel times and improve their quality of life. Most residents within the project vicinity were hopeful that the ICC would improve travel times to jobs and other daily trips, allowing for more leisure time and time spent with their families. Many residents noted their impatience for construction to begin. Other comments received adamantly favored the No-Action Alternative. Where more specific objections to Corridor 1 were stated, the Lead Agencies addressed them to the extent possible through the mitigation measures and design modifications.

Agency concerns regarding Corridor 1 focused on natural resources, as compared to the greater social, cultural and community impacts in Corridor 2. Corridor 1 concerns have been addressed to the satisfaction of Federal, State and local resource agencies through avoidance and minimization measures and a comprehensive mitigation package that fully mitigates impacts. This mitigation package is complemented by a generous environmental stewardship package that will provide future benefits to these resources. All agency comment letters on the Final EIS, with responses, are included in *Attachment B*.

The M-NCPPC has repeatedly studied and reaffirmed through its local planning process that the natural resource impacts of Corridor 1, taking into account minimization and mitigation, are acceptable in carrying out its comprehensive planning vision for the county and region. Both the M-NCPPC and the Montgomery and Prince George's county governments expressed a strong preference for Corridor 1 in its comments on the Draft EIS.

Both the EPA and DOI indicated a preference for Corridor 2 in their Draft EIS comments. However, in their Final EIS comments, EPA acknowledged the selection of Option C in Rock Creek and Option A in Northwest Branch as environmental impact avoidance and minimization measures, and supported the two options, as they represent significant savings to parkland and interior forest. EPA acknowledged that while resources along the Selected Alternative will be degraded and fragmented, it is expected that minimization, mitigation, enhancement and preservation efforts will help to sustain environmental conditions for the regional area. EPA also cited the aquatic and parkland mitigation package, environmental stewardship projects, and the commitment to environmentally sensitive design and construction methods as having addressed many of the concerns in its Draft EIS comment letter.

In its Final EIS comments, DOI found Corridor 1 with Rock Creek Option C and Northwest Branch Option A to be environmentally acceptable based on the mitigation package proposed by the Lead Agencies. DOI also suggested in their Final EIS comments possible modifications to various avoidance, minimization, and mitigation measures, which have since been incorporated into the Selected Alternative wherever feasible. DOI stated that the mitigation package alone adequately mitigates Corridor 1 impacts and also advised FHWA that Section 4(f) requirements have been satisfied with the inclusion of the avoidance, minimization, and mitigation specified in the Final EIS under Corridor 1 including Rock Creek Option C and Northwest Branch Option A.

Agency comments provided by the Maryland Department of Planning in its capacity as the State clearinghouse concluded that with the exception of concerns expressed by the Town of Washington Grove, and the Town of Kensington, all of the regional, State and local governments

and agencies participating in the clearinghouse process are generally supportive of the selected alternative and find it to be consistent with their plans, programs and objectives.

F. Rock Creek Options

The selection between Rock Creek Option A and Option C was especially difficult because for this park crossing, M-NCPPC, DOI, and EPA advised FHWA that the master-plan route for the ICC (Option A) across this particular park does not minimize environmental harm and could not be effectively mitigated. The park use is much greater because Rock Creek Park was established prior to any ICC route through this area.

1. Factors Leading to the Selected Rock Creek Option

The park owner, the M-NCPPC, following the recommendations of its February 3, 2005 staff report; the DOI, which includes both the U.S. Fish and Wildlife Service and the National Park Service, in its letter of February 25, 2005; and the EPA, in its February 25, 2005 letter; all recommended Rock Creek Option C due to this alignment's ability to minimize harm to park and natural resources. Rock Creek Option C, with a grade-separated crossing under Olde Mill Run Road, has been identified as the Selected Option. The following factors weighed most heavily in selecting this option, despite the unquestionably significant impacts to the Cashell Estates and Winters Run communities:

- The selected Rock Creek Option C would use a portion of the corridor reserved for the Midcounty Highway (M-83) and eliminate the need for an additional Midcounty Highway crossing. Therefore, future community and parkland impacts associated with the planned Midcounty Highway crossing would be avoided.
- The National Park Service persuasively distinguished the unique nature of this park. Rock Creek Regional Park connects to the national Rock Creek Park system that runs through our nation's capital. The Rock Creek park system is designed to provide recreational opportunities to the metropolitan Washington area. In this respect, the Regional Park in Montgomery County and the remainder of Rock Creek Park are

basically indistinguishable to those enjoying these parks. Rock Creek Option A crosses the park at the widest portion of this park system, eliminating a unique geographical feature of the park system. The Lead Agencies were unable to find adequate mitigation for this impact.

- The quality of the interior forest stands present along Option A are far superior to the isolated forest remnants impacted with Option C. Option C also results in less disruption of the natural terrain because it crosses Rock Creek between two knolls and at one of its narrowest points.
- Rock Creek Option C requires less parkland acquisition than Rock Creek Option A (12.1 acres¹⁸ compared to 37.5 acres¹⁹)
- Rock Creek Option A would have caused greater impacts to the natural environment, requiring three times as much impact to 100-year floodplains and more than three times as much total FID Species habitat (53.5 acres versus 15.9 acres).
- Rock Creek Option A would impact 6 uncommon plant species, 99 square feet of vernal pool habitat and 27.3 acres of the Needwood North Biodiversity Area, whereas Rock Creek C would impact 2 uncommon plant species, 65 square feet of vernal pool habitat and 5.9 acres of the Needwood North Biodiversity Area.

The Lead Agencies understand from comments received that residents of the affected communities dispute conclusions concerning the relative quality of natural resources affected by Rock Creek Option A vs. Option C. The information relied upon by FHWA in this respect was provided by both the park owner, M-NCPPC, and the National Park Service. Those agencies indicated that the resources potentially affected by Option A were of significantly higher quality and presented greater challenges to minimize or mitigate adverse impacts. While FHWA recognizes that individuals may differ in their views on the relative merits of the identified natural and park resources, after a careful assessment of the technical impact analyses the agency decided to defer to the information presented and opinions expressed by those officials directly responsible for parkland management and protection.

¹⁸ 8.0 acres from Rock Creek Park plus 4.1 acres from Mill Creek Stream Valley Park. These parks are described in detail on pages V-11 to V-20 of the Final EIS.

¹⁹ 33.4 acres from Rock Creek Park plus 4.1 acres from Mill Creek Stream Valley Park.

Some residents claimed to have only just recently learned that the ICC was being considered through their neighborhood. The notion of a Rock Creek Option C, while relatively new in the long history of Federal ICC studies, was first studied almost 10 years ago in the 1997 ICC Draft EIS as a Section 4(f) Evaluation alternative. When the current ICC EIS was initiated in June 2003, Rock Creek Option C was again included as an alternative to minimize harm to parkland in Rock Creek Regional Park. Throughout the current NEPA process, Rock Creek Option C was shown in the Draft EIS, the public hearing brochures, the Final EIS, and other informational materials. It was also presented as a viable alternative at all public hearings and at community meetings.

An important element of the current project purpose and need is that the project reflects local land use and planning objectives, especially those related to development and transportation. In this regard, FHWA considered the various alternatives' overall consistency with long-standing Montgomery County master plans, in part because local residents rely heavily on a comprehensive and predictable system of land use planning. Rock Creek Option C, while plainly a deviation from the local Master Plan, is a localized issue – selecting Option C does not undermine the validity of the underlying County General Plan. Option C also performs comparably to Rock Creek Option A in terms of travel demand, traffic served, and secondary growth implications. In that regard, it is not wholly inconsistent with the General Plan. Therefore, even understanding that Option C would be a deviation in terms of expectations within the Cashell Estates community, the magnitude of harm to Rock Creek Park dictated a deviation from the local Master Plan.

2. Mitigation for Impacted Communities

The Final EIS Community Impact Assessment plainly and accurately details the substantial impacts to the Cashell Estates and Winters Run communities associated with Rock Creek Option C. These impacts include residential displacements, increased noise, neighborhood division, visual intrusions, and the other impacts associated with a transportation facility in a suburban area.

In order to avoid and minimize many of those impacts, a number of measures were incorporated into the Selected Alternative. SHA has outlined design features which will be implemented with community input to further avoid and minimize impacts, the most significant of which is construction of a “deckover” (also called a “cut and cover”) of up to 625 feet in length through Winters Run to permit community continuity by allowing pedestrian, vehicular and visual access over the ICC. SHA will work with the residents during final design engineering to settle on detailed specifications for the deckover and treatments that will appear on the deck itself. Additional measures include:

- Passing the ICC beneath Olde Mill Run to both reduce visual impacts and maintain current access within the Winters Run community. In addition, the grade separation at Olde Mill Run (rather than the cul-de-sac sub-option) would prevent further isolation of the community by maintaining access to Muncaster Mill Road (MD 115).
- Constructing retaining walls to minimize displacements and reduce property acquisition at the south end of Catalpa Court and in the Winters Run neighborhood. The ICC will also include erection of approximately 3,000 feet of retaining walls through Winters Run to avoid or minimize the acquisition of property from adjoining residences.
- Placing stormwater management underground to reduce impacts to residences in Winters Run.
- Traversing under Redland Road to reduce visual impacts.
- Reducing median widths in some places to the minimum desirable, as stated in the AASHTO Greenbook, 26 feet (compared to up to 50 feet elsewhere along the proposed corridor) to further reduce the footprint of the roadway through the community.

- Upgrading Nedham and Overhill Roads within Cashell Estates to Montgomery County standards and placing them under county control, eliminating the need for the community to maintain them.

Other proposed features to be discussed with the community include the materials and appearance of approximately 5,100 and 3,200 linear feet of noise barriers to be constructed in Cashell Estates and Winter's Run, respectively, in order to minimize noise intrusion and community isolation. Also, environmental stewardship project (S-1), included as part of the Selected Alternative, calls for construction of 2,000 linear feet of sidewalk on the south side of MD 115 from Applewood Lane to Olde Mill Run.

VI. SUMMARY OF COMMENTS ON THE FINAL EIS

The Final EIS and technical reports were posted on the project website on January 6, 2006. The first public comments were submitted the same day via an electronic comment form. However, the review period did not officially begin until January 13, 2006, when the Notice of Availability was published in the Federal Register. An initial review period of 45 days was established, but then extended twice in response to requests for time extension from elected officials and interested groups, finally closing on April 11, 2006. With the two extensions, the official review period lasted a total of 90 days – far exceeding the minimum 30-day period established by regulation.

During the review period, a total of 773 pieces of correspondence were received, from 737 citizens (individuals and groups), 30 elected officials (Federal, State, and local), and 6 agencies (Federal, State, and local). Correspondence was submitted in several ways – via the project website, by mail, fax, and e-mail. All correspondence that was forwarded to the Lead Agencies was considered during the decision making process. All correspondence that included requests for information was given immediate attention to provide the information. For example,

at the beginning of the review period, some citizens requested help downloading the documents from the project website. A project representative called these citizens to walk them through the download procedure. Other commenters requested copies of the Final EIS, technical reports, maps or property acquisition information; these requests were fulfilled as soon as possible, usually within a few days.

On March 24, 2006, the Lead Agencies released an additional technical air quality analysis²⁰ (“PM2.5 Project Level Conformity Determination”) for public comments with a 15-day comment period concurrent with the Final EIS review period. In response to extension requests, the comment period for the PM2.5 Conformity Determination was extended an additional 15 days beyond the close of the Final EIS review period, ending on April 26, 2006 which provided a total comment period of 30 days. Comments were received from 1 agency and 11 citizens (individuals and groups).

A. Processing the Correspondence

All 785 pieces of correspondence, including the 12 received between the dates of April 11, 2006 and April 26, 2006, were processed when received. Each document was assigned a unique identification number, scanned, and entered into the project record. The individual comments within each letter was culled and entered into a matrix. Over 800 unique comments (3,200 total comments) were identified from the 785 comment letters received. The Lead Agencies reviewed and responded to each unique comment, and confirmed that no new information had been presented that would require a Supplemental EIS. Comments received after the deadlines are not included in the volume “Record of Responses to Public Comments,” but were reviewed and considered by FHWA in its decision making process and are included in the project file.

²⁰ The additional air quality analysis for PM2.5 is discussed in detail on Pages 131 to 135 of this ROD.

B. Summary of Comment Themes

Many comments were similar to those submitted during the comment period for the Draft EIS, while some comments were unique to the Final EIS. In addition to Statements of general support or opposition to the ICC, the following major themes were seen in the Draft and Final EIS:

- **Purpose and Need too Narrowly Defined** – Some commenters indicated that the ICC purpose and need was written to exclude the consideration of non-highway alternatives. On the other hand, commenters noted that even with additional transit initiatives in the area, the ICC was still needed and would enable rapid bus transit.
- **Consistency with Local Land Use Planning** – Some commenters indicated that they have been waiting a long time for the ICC to be built; that they had made decisions based upon its planned location; or that they did not know about the possibility a particular alternative, option, or sub-option could be located near them.
- **Consideration of Other Alternatives** – Some commenters indicated their other alternatives such as balanced land use, transit, transportation demand management, high occupancy vehicle and toll lanes, mag-lev, distance-based auto insurance, construction of “the Purple Line”, or improvements to existing roads should have been given more consideration.
- **Tolls** – Some commenters indicated that the ICC should not be a toll road, the tolls will be too high, and the public was not informed that the ICC would be a toll road.
- **Bike Path** – Many commenters voiced support for inclusion of a bike path. Many commented on various aspects of the bicycle/pedestrian plan. Some advocated specifically for a parallel path along the entire route instead of the bicycle/pedestrian plan.
- **Cost and Financing** – Some commenters indicated that the ICC will divert funding from other important needs, and that the use of bonds will strap the State financially.
- **Community Impacts** – Many commenters, particularly along Corridor 2, indicated that the ICC will impact neighborhoods by bisecting long-standing communities and displacing residents, or reducing the market values of their homes. Commenters also stated concerns about construction impacts.
- **Natural Environmental Impacts** – Some commenters indicated that the ICC is too environmentally destructive and will negatively impact parks, wildlife, plant species, forests, farmland, wetlands, streams, vernal pools, native plant species, wildlife and bird habitat, and will increase noise and air pollution levels. Other commenters expressed concern that Corridor 2 will increase risk of drinking water contamination. Some commenters expressed concern that there will be a loss of the trout population due to bridges over trout streams, increased water temperatures, and added sediment load.

Commenters also indicated their view that the Section 4(f) Evaluation was insufficient because impacts to parkland are much higher than what is stated in the document. Other commenters stated that Section 4(f) should have applied to DTAs that have functioned for decades as parkland. Others disagreed with the adequacy of the mitigation.

- **Secondary and Cumulative Effects** – Many commenters were concerned with additional growth associated with Corridor 2. Some commenters indicated that the ICC would support longer commutes, more commuters and subsequently more sprawl instead of encouraging high-density smart growth development and that the resulting direct and secondary impacts of sprawl are a waste of land resources. Commenters also asserted that the travel demand and land use forecasts used to predict secondary impacts were flawed.
- **Increased Congestion** – Some commenters indicated that the ICC will increase congestion. Many stated that they thought that the majority of commuters use I-270, I-495, and I-95, and therefore the ICC will not benefit those drivers. Others indicated their view that because the ICC was planned decades ago, it is not a relevant solution for today's traffic and growth management.
- **Benefits of the ICC** – Some commenters indicated that the ICC would relieve congestion and improve mobility and quality of life within the Study Area. They stated that it will promote livable communities by encouraging quality commercial, industrial, and residential growth. Commenters noted that traffic on east-west local roads has become unbearable and the roadways can no longer safely handle the volume of cars and trucks and that the ICC was planned to alleviate these safety and congestion issues. Commenters also noted that the ICC will serve existing and planned growth, enable east-west transit, and connect I-270 and I-95. Commenters indicated that the ICC is part of regional transportation plan that includes transit, and that Montgomery and Prince George's Counties have long developed plans balancing land use and transportation.
- **Insufficiency of the Final EIS Document and Process** - Many commenters requested that the review period be extended, for various periods up to 120 days. Other commenters indicated their view that the Final EIS did not include enough detailed information and adequate studies.
- **Project Level Conformity Determination for (PM 2.5) and Air Quality** – Some commenters indicated that because EPA established the Project Level Conformity Determination 2.5 standard several years ago, the analysis should have been undertaken earlier. Commenters also asserted that the wrong methodology was used, that the ICC will degrade air quality and cause the region's air quality not to meet standards, and also expressed concern about the health effects of air pollution.

- **Rock Creek Option C** – Some commenters asserted that Rock Creek Option C should not be selected because it costs more than Option A, has more impacts to communities and homes, and has similar impacts to natural resources as Option A. Commenters noted the master plan has never included Rock Creek Option C, and that many people bought their homes based on this fact.

C. Responses to Comments on the Final EIS and Conformity Determination

As noted previously, FHWA reviewed and considered every comment received on the Final EIS and the PM2.5 Conformity Determination. The responses to public comments are documented in the volume accompanying this ROD entitled “Record of Responses to of Public Comments.”

VII. SECTION 4(F) DETERMINATION

Section 4(f) of the Department of Transportation Act (49 U.S.C. § 303(c)) prohibits FHWA from approving the use of Section 4(f) protected lands unless FHWA finds that (1) there is no prudent and feasible alternative that avoids the use of such lands and (2) the project includes all possible planning to minimize harm to such lands. In general, the lands protected by Section 4(f) include publicly owned parks, recreation areas, wildlife and waterfowl refuges, and significant historic sites.

After carefully considering the mandates of Section 4(f), as well as its obligations under 23 U.S.C. 109(h) and other applicable laws, FHWA has concluded that the Selected Alternative (Corridor 1) satisfies the stringent requirements of this statute. In making this decision, FHWA fully acknowledges that there are alternatives available that would use fewer acres of Section 4(f) land. However, the acreage of impact is only one factor that must be considered when determining the requirements of Section 4(f). When all relevant factors are taken into account, the Selected Alternative fulfils the requirements of Section 4(f). The basis for this decision is set forth below.

A. Planning Context

The ICC is a proposed east-west highway that crosses several north-south parks. To appreciate the relationship between the highway and the parks, it is vital to understand that the highway and the park system were jointly planned by the same agency, M-NCPPC, which has responsibility for comprehensive land use planning and for the ownership and maintenance of the local park system. In other words, this is a situation in which the agency that planned the parks also planned for a highway to cross through those parks – and while its original plan has evolved over time, its essential elements have always included a system of north-south parks crossed by a major east-west, limited-access highway. This plan has been developed with extensive community input, has been repeatedly reaffirmed over several decades, and has been largely implemented through carefully managed development and land preservation efforts. This type of comprehensive planning is entitled to considerable weight when assessing the requirements of Section 4(f). M-NCPPC’s comprehensive planning is discussed in detail on pages 53 to 58 of this ROD.

B. Overview of Alternatives Considered in Section 4(f) Evaluation

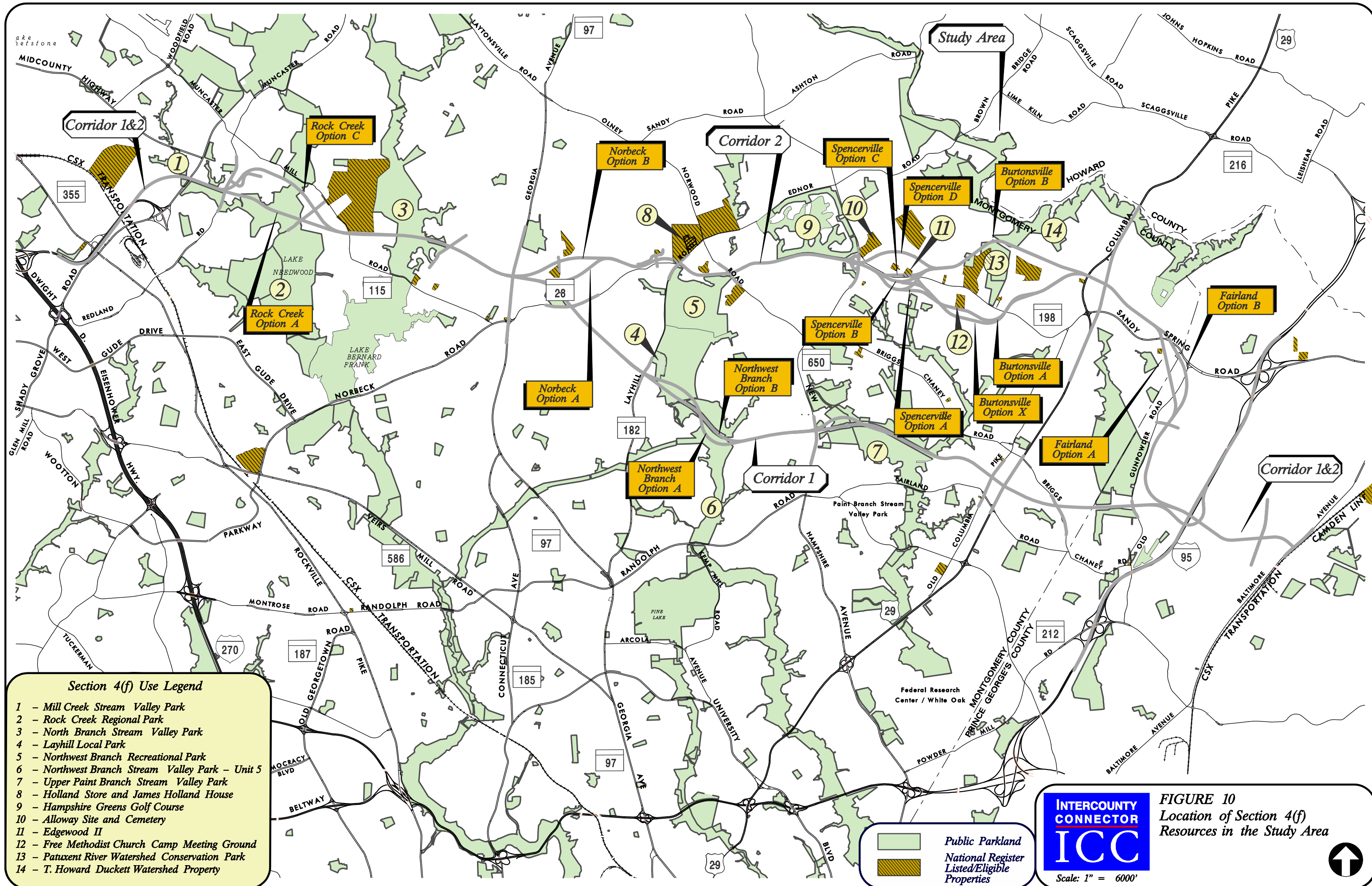
The scoping process that considered hundreds of potential alternatives is described on pages 34 to 35 of this ROD and *Section V.B.2* (Pages V-2 to V-3) of the Final EIS. Two principal build alternatives considered in the EIS were Corridor 1 and Corridor 2, both of which include multiple options and sub options. The alternatives, options, and sub options are depicted in *Figure 5* and described on pages 35 to 44 of this ROD.

C. Overview of Section 4(f) Resources in Study Area

The Study Area for the ICC includes several large publicly owned parks and recreational areas, as well as numerous historic sites eligible for the National Register of Historic Places. The locations of these Section 4(f)-protected resources are shown in *Figure 10*, and the resources are described in detail in the *Section V.I* (Pages V-11 to V-15) and *Section V.F* (Pages V-15 to V-24) of the Final EIS. When acquiring parcels that overlap with the planned route for the ICC, the M-NCPPC has designated land within the ICC corridor as transportation right-of-way from the moment of acquisition. In addition, SHA itself has acquired certain lands for construction of the ICC at various times. Lands acquired specifically for the ICC are considered transportation right-of-way, not parkland. In this study, the term “Designated Transportation Area (DTA)” has been used to refer to those lands. The DTAs adjacent to parks are shown in *Figure 11*. The concepts of DTA and “ICC Master Plan Corridor” are further explained in *Section V.C.1.b* (Pages V-5 to V-6) of the Final EIS. The following summary briefly describes the Section 4(f) resources that would be used by one or more of the build alternatives.

1. Parkland and Recreation Areas

Mill Creek Stream Valley Park. This park is owned by M-NCPPC and is approximately 112 acres in size. It serves primarily as a buffer to Mill Creek and provides an area of open space in an otherwise densely developed suburban residential setting. It is interrupted by road crossings at four locations, and is bisected by a DTA, which extends all the way across the park. This park is described in *Section V.E.1.a* (Pages V-11 to V-12) of the Final EIS and is shown in Figure V-4. This park would be used by both Corridor 1 and Corridor 2.



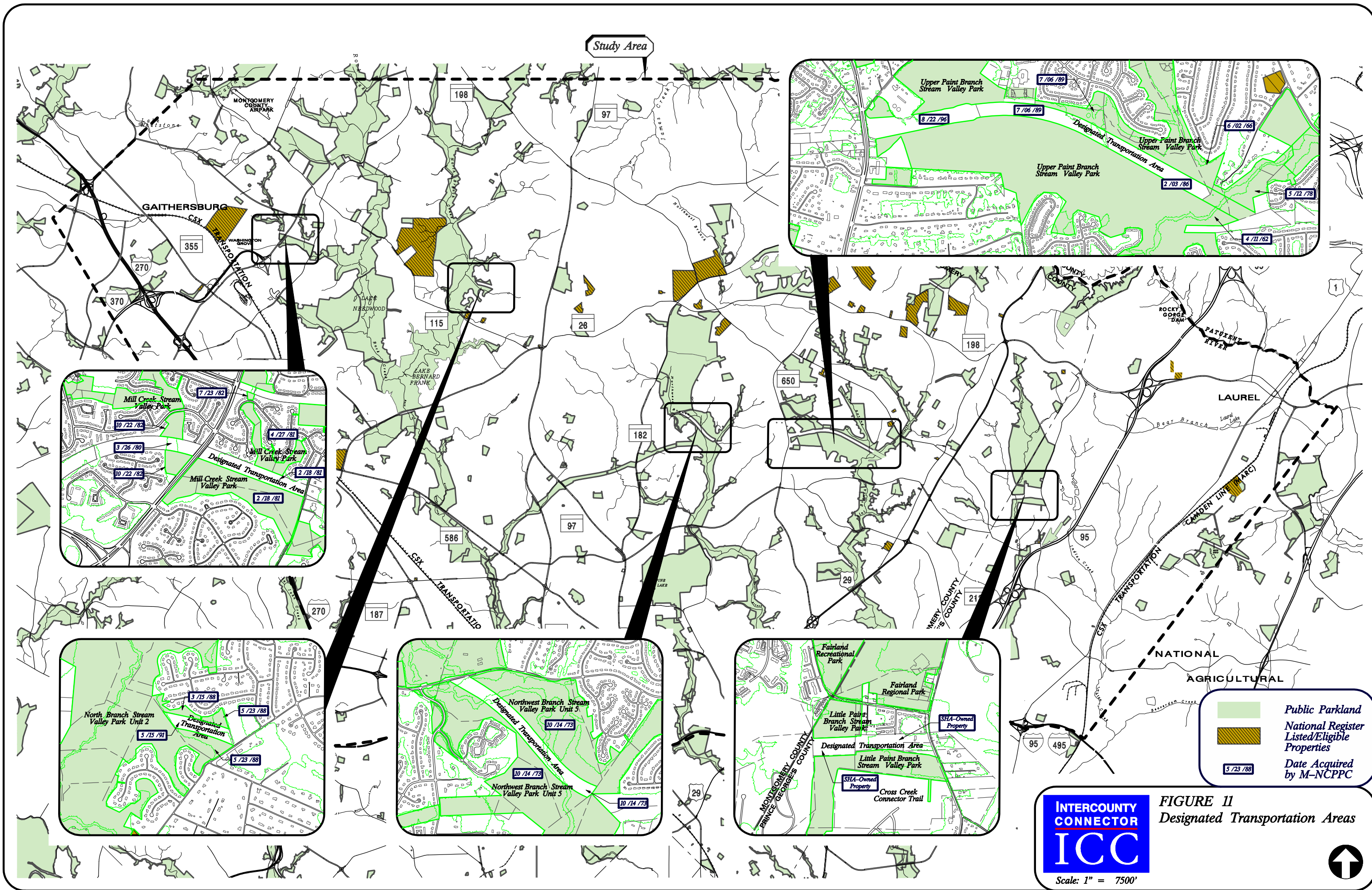
- Section 4(f) Use Legend**
- 1 - Mill Creek Stream Valley Park
 - 2 - Rock Creek Regional Park
 - 3 - North Branch Stream Valley Park
 - 4 - Layhill Local Park
 - 5 - Northwest Branch Recreational Park
 - 6 - Northwest Branch Stream Valley Park - Unit 5
 - 7 - Upper Paint Branch Stream Valley Park
 - 8 - Holland Store and James Holland House
 - 9 - Hampshire Greens Golf Course
 - 10 - Alloway Site and Cemetery
 - 11 - Edgewood II
 - 12 - Free Methodist Church Camp Meeting Ground
 - 13 - Patuxent River Watershed Conservation Park
 - 14 - T. Howard Duckett Watershed Property



FIGURE 10
Location of Section 4(f)
Resources in the Study Area

Scale: 1" = 6000'





Rock Creek Regional Park. This park is owned by M-NCPPC and is approximately 1,778 acres in size. It is part of the Rock Creek park system, which extends in a north-south direction from the headwaters of Rock Creek in central Montgomery County to the Potomac River in Washington, D.C. This park serves both recreational and conservation purposes. Natural features include lakes, forests, streams, wetlands, and floodplains; forested areas include FIDS habitat. Because transportation right-of-way was not reserved through this park at the time of acquisition, there is no DTA through this park. However, the M-NCPPC's current plans show a route for the ICC through the park. This park is described in *Section V.E.1.b* (Pages V-12 to V-14) of the Final EIS and are shown in Figure V-5. This park would be used by both Corridor 1 and Corridor 2.

North Branch Stream Valley Park. This park is owned by M-NCPPC and is approximately 275 acres in size. This park provides a buffer to the North Branch of Rock Creek and offers low-impact recreational opportunities to surrounding communities. It also provides an area of open space in an otherwise densely developed suburban residential setting. A DTA bisects a portion of this park. This park and the DTA are described in *Section V.E.1.c* (Pages V-14 to V-15) of the Final EIS and are shown in Figure V-6. This park would be used by both Corridor 1 and Corridor 2.

Layhill Local Park. This park is owned by M-NCPPC and is approximately 32.5 acres in size. This park includes recreational facilities (a playground, soccer fields, etc.) and a small wooded area. This park does not include a Designated Transportation Area. This park is described in *Section V.F.1.a.i* (Page V-26) of the Final EIS and is shown in Figure V-16. This park would be used by Corridor 1 only.

Northwest Branch Recreational Park. This Park is owned by M-NCPPC and is approximately 688 acres in size. This park primarily serves recreational purposes. It includes a golf course, picnic shelter, dog exercise area, a soccer field, and two softballs fields. It also includes the National Capital Trolley Museum, a privately owned museum that leases land in the park from M-NCPPC. This park does not include a DTA. This park is described in *Section V.F.1.a.ii* (Pages V-26 to V-28) of the Final EIS and is shown in Figure V-16. This park would be used by Corridor 1 only.

Northwest Branch Stream Valley Park – Unit 5. This park is owned by the M-NCPPC and is approximately 408 acres in size. Together with Layhill Local Park and Northwest Branch Recreational Park it forms a continuous park system extending 14 miles in a north-south direction. This park functions as a buffer for Northwest Branch and a greenway separating densely developed residential communities with green space; it also provides passive recreational opportunities. Natural features include forests, wetlands, vernal pools and streams, and floodplains. A DTA bisects most of the park. This park is described in *Section V.F.1.a.iii* (Pages V-29 to V-30) of the Final EIS and shown in Figure V-17 of the Final EIS. This park would be used by Corridor 1 only.

Upper Paint Branch Stream Valley Park. This park is owned by M-NCPPC and is approximately 770 acres in size. This park is part of the Paint Branch Stream Valley Park system, which is approximately six miles in length. This park is mostly forested land and contains no man-made park amenities except for unauthorized trails. The park functions as a greenway separating densely developed residential communities with green space, and provides a buffer for Paint Branch and for the Gum Springs and Good Hope tributaries. The park includes forests,

wetlands, and numerous seeps and springs. It includes a naturally reproducing brown trout population. It includes a DTA, which extends part of the way across the park. This park and the DTA were described in *Section V.F.1.a.iv* (Pages V-30 to V-31) of the Final EIS and were shown in Figure V-18; however, those descriptions in the Final EIS were superseded by an Addendum to the Section 4(f) evaluation²¹, which is appended to this ROD as *Attachment G*. This park would be used by Corridor 1 only.

Hampshire Greens Golf Course. This 18-hole, 213-acre public golf course is owned by the Montgomery County Revenue Authority. It is described in *Section V.F.1.b.i* (Pages V-32 to V-33) of the Final EIS. This property would be used by Corridor 2 only.

Patuxent River Watershed Conservation Park. This park is owned by the M-NCPPC and is approximately 314 acres in size. This park consists of six non-contiguous parcels within the watershed of the Rocky Gorge Reservoir. It is considered a conservation park, and as such is managed for environmental preservation purposes although some recreational activities are allowed. This park would be used by some variations of Corridor 2.

T. Howard Duckett Watershed Property. This property is owned by the Washington Suburban Sanitary Commission, the public agency responsible for public water and sewer systems in the Study Area, and is approximately 1,400 acres in size. This property serves conservation functions (protecting the Rocky Gorge Reservoir) and also serves recreational functions, such as fishing, boating, and hiking. This property is described in *Section V.F.1.b.vii* (Page V-37) of the Final EIS. This property would be used by some variations of Corridor 2.

²¹ The Final EIS stated that the DTA within the Upper Paint Branch Stream Valley Park extended all the way across the park. Based on further research, FHWA has revised the definition of the DTA through this park. The revised definition of the DTA through this park was circulated in the Addendum to the Section 4(f) Evaluation. For more on the Addendum, refer to Section VII.L.2 below.

2. Historic Sites

Holland Store and James Holland House. This historic property consists of a 97-acre parcel, which includes three structures: the Holland Store, the James Holland House, and a barn. The Holland Store and James Holland House were constructed circa 1859 and are considered eligible for the National Register under Criterion A (for association with historic events) and Criterion C (for architecture). The property is considered a distinctive example of a mid-19th century rural crossroads store and storekeeper's house. This property is described in *Section V.F.b.i* (Pages V-31-V-32) of the Final EIS. This property would be used by Corridor 2 only.

Alloway Site and Cemetery. This historic property consists of a 25-acre parcel, which includes the main house and four outbuildings. The outbuildings date from the late 19th and early 20th centuries, and are considered eligible for the National Register under Criterion C (for architecture). The original house burned in 1940 and was replaced by the present brick structure, which itself is considered historic as an example of a mid-20th century modernistic residential architecture. The property has an intact historic setting that supports the qualities that make the structures eligible for the National Register. This property is described in *Section V.F.b.iii* (Page V-33) of the Final EIS. This property would be used by Corridor 2 only.

Edgewood II. This historic property consists of a 7.5-acre parcel, which includes the main house and three outbuildings. The main house was originally constructed in 1860 and is considered eligible for the National Register under Criterion C (for architecture) as a good example of mid-19th century Georgian farmhouse. The property retains a high degree of integrity in its historic setting, despite intense development in the surrounding community. This property is described

in *Section V.F.b.v* (Page V-35) of the Final EIS. This property would be used by some variations of Corridor 2.

Free Methodist Church Camp Meeting Ground. This historic property consists of a 12-acre parcel, which includes a campground and associated buildings, as well as a superintendent's house, a groundskeeper's house, and an administration office. The property is considered eligible for the National Register under Criterion A as a significant example of a site representing American religious traditions and under Criterion C as a historic cultural landscape that embodies distinctive characteristics of Methodist camp architecture. The camp includes a historic open-air tabernacle (church), which remains in use. The historic setting within the camp remains intact. This property is described in *Section V.F.I.b.v* (Pages V-35 to V-36) of the Final EIS. This property would be used by some variations of Corridor 2.

D. Complete Avoidance Alternatives

Where there is a prudent and feasible project alternative that completely avoids the use of all Section 4(f) properties, FHWA cannot approve an alternative that uses such land. Therefore, FHWA has carefully considered the potential for a complete avoidance alternative. For the following reasons, FHWA has concluded that no such alternative exists.

No-Action Alternative. The No-Action alternative would completely avoid the use of Section 4(f) land, because the project would not be implemented. However, the No-Action Alternative would do nothing to address any of the elements of the project's purpose and need. See *Section V.I* (Pages V-67 to V-68) of the Final EIS. It is well settled that an alternative that

fails to meet the purpose and need of a project is not prudent. Therefore, the No-Action Alternative has been properly eliminated from consideration as an imprudent alternative.

Improve Existing Roads/Promote Transit/Change Land Use. FHWA considered several alternatives that involve – separately and in combination – improvements to existing roads, increases in transit service, and changes in land use. Unlike the No-Action Alternative, these types of alternatives would provide transportation benefits to some degree. However, they would do little to improve community safety and mobility, support planned land use, or meet other elements of the project’s purpose and need Statement. Therefore, these alternatives also were eliminated as imprudent, based on their inability to meet purpose and need. See *Section V.B.2* (Pages V-2 to V-3) of the Final EIS and *Appendix R*. It also should be noted that, even if these alternatives were prudent, they would not necessarily avoid all Section 4(f) properties, because any significant improvements to existing east-west roadways or transit service would require some use of the region’s system of north-south parks.

Other Potential Avoidance Alternatives. In addition to the alternatives considered in the Final EIS, there are virtually limitless additional alternatives that could conceivably be developed for roadway, transit, or other improvements in the Study Area. Given the location of the parks in the Study Area, which are primarily located in a north-south direction, it is not possible to provide any meaningful increase in east-west transportation capacity without the use of parkland. Therefore, FHWA has concluded that there is no prudent and feasible alternative for this project that completely avoids the use of Section 4(f) resources.

E. Overall Approach to Comparing Corridors 1 and 2

In the absence of a total avoidance alternative, Section 4(f) allows for selection of an alternative that uses Section 4(f) land. However, it is still necessary to satisfy the second element of Section 4(f) – namely, the requirement to “minimize harm” to the protected resources. For this project, the minimization-of-harm analysis is complex because both of the build alternatives (Corridor 1 and Corridor 2) involve multiple options and sub options, which have different types of impact on Section 4(f) land.

To provide a systematic basis for comparing Corridor 1 and Corridor 2, FHWA adopted a two-step approach: In the first step, FHWA reviewed individual sets of options and sub options along both Corridor 1 and Corridor 2. This step resulted in selection of a single set of options for Corridor 1, and the selection of two different sets of options for Corridor 2 – known as Corridor 2AX and Corridor 2DB. The results of this analysis are presented in *Section V.J-M* (Pages V-68 to V-98) of the Final EIS.

Comparison of “End-to-End Alternatives”. In the second step, FHWA conducted an overall comparison among Corridor 1, Corridor 2AX, and Corridor 2DB. This comparison provided the basis for the decision to approve the selection of Corridor 1. The results of this analysis are presented in *Section V.N-O* (Pages V-98 to V-120) of the Final EIS.²²

F. Comparison of Alignment Options for Corridors 1 and 2

The Section 4(f) chapter in the Final EIS reviews each set of alignment options and sub options to assess their consistency with Section 4(f). In some areas, all of the options avoided

²² At the request of DOI, FHWA also considered another variation of Corridor 2, known as Corridor 2AA. For a discussion of Corridor 2AA, please refer to section VII-L.1, *Special Issues*, in this ROD.

the use of Section 4(f) land, or were found to be substantially equal; in those areas, Section 4(f) did not govern the decision among the options and sub options, so the choice was made based on non-Section 4(f) factors (cost, environmental impacts, transportation benefits, etc.) In other areas, the options differed in their impacts on Section 4(f) resources; in those areas, FHWA selected the prudent and feasible option that resulted in the least harm to Section 4(f) resources. These decisions are presented in *Section V.J-M* (Pages V-68 to V-98) of the Final EIS and are summarized below.

1. Options Common to Corridor 1 and Corridor 2

Rock Creek Options. Corridors 1 and 2 follow the same alignment through Rock Creek Regional Park. In this area, two options were carried forward for detailed study: Rock Creek Option A and Rock Creek Option C. Rock Creek Option A generally followed the ICC Master Plan Corridor, which minimized residential impacts but involved greater impacts on parkland. Rock Creek Option C substantially reduced the harm to the parkland by crossing the park at a narrower point, but resulted in greater residential impacts. In particular, Rock Creek Option C has greater impacts on the communities of Winters Run and Cashell Estates. In this situation, it is clear that Rock Creek Option C is the alternative that minimizes harm to Section 4(f) resources. While the community impacts of this option are unquestionably significant, FHWA concluded – after weighing a wide range of factors, including the strong views expressed by the agencies with jurisdiction – that Rock Creek Option C with an Olde Mill Run Grade Separation is the prudent and feasible alternative that minimizes harm to Rock Creek Regional Park. Based on that finding, Rock Creek Option C with an Olde Mill Run Grade Separation was selected.

The justification for selecting this option is further explained in *Section V.K.1* (Pages V-68 to V-76) of the Final EIS and on pages 81 to 83 of this ROD.

2. Options on Corridor 1 Only

Layhill Road Interchange Options. Corridor 1 included the option of providing or omitting an interchange at Layhill Road. The Final EIS documented that the impacts of Corridor 1 on Section 4(f) lands – specifically, Layhill Local Park and Northwest Branch Recreational Park – would be substantially equal with or without the Layhill Road interchange. Based on improved traffic operations, FHWA approved the selection of the option that included the Layhill Road interchange. See *Section V.L.1* (Pages V-76 to V-78) of the Final EIS.

Northwest Branch Options. Corridor 1 included two main options through Layhill Local Park, Northwest Branch Recreational Park, and Northwest Branch Stream Valley Park Unit 5. These two options were known as Northwest Branch Option A and Northwest Branch Option B. Option B generally followed the ICC Master Plan Corridor, which was more direct but had greater impacts on streams, floodplains, and other natural resources. Option A followed a more curving path requested by the environmental resource agencies (referred to as the “S curve”), that takes greater acreage from the park but minimized impacts to the stream valley resources that the park is intended to protect. While Option A takes more acreage of Section 4(f) land overall, FHWA found - and resource agencies agreed - that Option A significantly minimizes harm to the park. Therefore, Option A was selected. See *Section V.L.2* (Pages V-78 to V-82) of the Final EIS.

3. Options on Corridor 2 Only

Layhill Road Interchange Options. Corridor 2 was evaluated both with and without a Layhill Road interchange. As with Corridor 1, both options were substantially equal in terms of their impacts on Section 4(f) land and the interchange improved traffic operations. See *Section V.M.2* (Pages V-83 to V-84) of the Final EIS.

Spencerville and Burtonsville Options. Corridor 2 involves a large number of options in the vicinity of Spencerville and Burtonsville, which are two communities with numerous historic properties in the relatively rural northern part of the Study Area, just south of the Rocky Gorge Reservoir. The Spencerville and Burtonsville options are summarized in the Section 4(f) chapter of *Section V.M.3* (Pages V-84 to V-98) of the Final EIS. As explained in the Final EIS, the options in this area were distilled down to two combinations, each of which had distinctive advantages and disadvantages: Corridor 2AX and Corridor 2DB. As between these two options, Corridor 2AX provided the lowest impact on Section 4(f) parkland, but caused serious impacts to the Free Methodist Church Campground, a Section 4(f) historic land. However, both versions were carried forward for the overall comparison of Corridors 1 and 2. See *Section V.M.3* (Pages V-84 to V-98) of the Final EIS.

4. Conclusions Regarding Alignment Options

Based on the analysis summarized above, FHWA defined the following three alternatives for consideration in the final comparison of Corridor 1 and Corridor 2:

Corridor 1. Corridor 1 was defined to include Rock Creek Option C -- Olde Mill Run Grade Separation; Interchange at Layhill Road; Northwest Branch Option A (the "S Curve"); and an eastern terminus at US 1.

Corridor 2AX. Corridor 2AX was defined to include: Rock Creek Option C – Olde Mill Run Grade Separation; Norbeck Option A; Interchange at Layhill Road; Spencerville Option A; Burtonsville Option X; Fairland Option A; and an eastern terminus at US 1.

Corridor 2DB. Corridor 2DB was defined to include: Rock Creek Option C – Olde Mill Run Grade Separation; Norbeck Option A; Interchange at Layhill Road; Spencerville Option D; Burtonsville Option B; Fairland Option A; and an eastern terminus at US 1.

G. Uses of Section 4(f) Land

The Section 4(f) Evaluation considers the potential for direct, constructive, and temporary uses from Section 4(f) properties along Corridor 1, Corridor 2AX, and Corridor 2DB. The direct and temporary uses are described on Pages V-15 to V-20 and V-37 to V-50 of the Final EIS. The analysis of the potential for constructive use²³ is provided in *Section V.Q* (Pages V-125 to V-164) of the Final EIS. The results of this analysis are summarized below:

Table 2
Section 4(f) Uses for the Selected Alternative

Section 4(f) Resources	Total Section 4(f) Use Acreage
Mill Creek Stream Valley Park	4.1 ¹
Rock Creek Regional Park	8.0
North Branch stream Valley Park	17.7
Layhill Local Park	2.3 ¹
Northwest Branch Recreational Park	21.5 ¹
Northwest Branch Stream Valley Park - Unit 5	23.4
Upper Paint Branch Stream Valley Park	11.1 ¹
Total Section 4(f) Use	88.1 acres^{1,2}
¹ Incorporates post-Final EIS refinements ² Of these 88.1 acres of total Section 4(f) use, 32.7 of the total acres directly minimize harm to park resources. These 32.7 acres result from shifting the ICC outside of the DTA and into parkland. For additional information about this 32.7-acre disparity, see footnote 27 of this ROD.	

²³ Constructive use occurs when a transportation project does not incorporate land from a Section 4(f) resource, but the project’s proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features or attributes of the resource are substantially diminished. See 23 C.F.R. § 771.135(p)(2).

The Section 4(f) property used by Corridors 2AX and 2DB is described in detail in Section V.E.1 of the Final EIS and summarized below:

Table 3
Section 4(f) Uses for Corridor 2 AX

Section 4(f) Resources	Total Section 4(f) Use Acreage
Mill Creek Stream Valley Park	4.1 ¹
Rock Creek Regional Park	8.0
North Branch Stream Valley Park	17.7
Holland Store (HS) and James Holland House historic site	2.1
Hampshire Greens Golf Course	0.1
Alloway Site and Cemetery historic site	0.4
Total Section 4(f) Use	32.4 acres¹

¹ Incorporates post-Final EIS refinements

Table 4
Section 4(f) Uses for Corridor 2 DB

Section 4(f) Resources	Total Section 4(f) Use Acreage
Mill Creek Stream Valley Park	4.1 ¹
Rock Creek Regional Park	8.0
North Branch Stream Valley Park	17.7
Holland Store (HS) and James Holland House historic site	2.1
Hampshire Greens Golf Course	0.1
Alloway Site and Cemetery historic site	0.4
Patuxent River Watershed Conservation Park	12.9
T. Howard Duckett Watershed Property	2.6
Total Section 4(f) Use	47.9 acres¹

¹ Incorporates post-Final EIS refinements

H. Minimization Measures for Corridors 1 and 2

Throughout the development of the project alternatives, efforts were made to avoid and minimize the use of Section 4(f) resources for each build alternative. These efforts included alignment shifts, steeper side slopes, increased bridge lengths, minimized median width, and

underground stormwater management facilities. An extraordinary level of engineering effort has been devoted to reducing the impacts of the alternatives, not only in parkland but throughout the entire length of the project. This effort has been equally intense for Corridor 1 and Corridor 2. This effort is described on pages 44 to 47 of this ROD and in *Section V.E.3-4* (Pages V-20 to V-24) and *Section V.F. 3-4* (Pages V-50 to V-59) of the Final EIS.

I. Mitigation and Stewardship Commitments

This project includes a mitigation package of virtually unprecedented scope. A substantial portion of the mitigation will enhance Section 4(f) properties. The package was developed on an equal basis for both Corridor 1 and Corridor 2, with adjustments to take into account differences in the impacts and mitigation opportunities presented by each alternative.

1. Approach to Mitigation

For parkland, the goal has been to replace the functions and values of the impacted lands, primarily by providing replacement parkland. Mitigation for parkland impacts also includes measures to replace and enhance natural resources within parks where preservation of environmental resources and stream valley protection are key functions of the park. It also includes the replacement of recreational amenities such as soccer and baseball fields in parks where these facilities are impacted. For historic sites, mitigation includes measures specific to the individual resources. Mitigation measures were identified for all historic sites that would incur a Section 4(f) use (all of which were along Corridor 2).²⁴

²⁴ As part of Section 106 consultation under the National Historic Preservation Act, mitigation measures also have been adopted for historic properties that were adversely affected, but not actually used, by Corridor 1 or Corridor 2. All mitigation commitments for historic properties are incorporated into a Section 106 Memorandum Of Agreement, which was executed by FHWA, SHA, the Maryland Transportation Authority, and the Maryland Historic Trust.

2. Mitigation for Corridor 1

The mitigation package for the Selected Alternative will establish 776.6 acres of new parkland, as described in *Table 5* below. In addition, the Selected Alternative will undertake sixty-three environmental stewardship projects, the majority of which directly or indirectly benefit park resources. In a letter dated September 21, 2005, the M-NCPPC -- the owner of all park properties used by the Selected Alternative -- accepted the mitigation package for the Selected Alternative. In that letter, the M-NCPPC recognized that “the State has presented a mitigation package that maintains the integrity of the park system” and that the State is “going to exceptional lengths to minimize impacts to the environment and to owned land by M-NCPPC.” The M-NCPPC also noted in that letter that it had sought “environmentally equivalent land” as mitigation and concluded that the SHA’s package “meets and in many aspects exceeds the land compensation necessary” to meet that standard. The DOI, for whom the Section 4(f) statute mandates a consultation role, stated in its comments on the Draft EIS that it would support selection of Corridor 1 only if the Lead Agencies included a substantial mitigation package; in its comments on the Final EIS, the DOI acknowledged that the replacement parkland “far exceeds that acreage which would be affected by the construction of Corridor 1” and “closely replicates the parkland that would be impacted” in terms of various natural resource values. The DOI concluded that “the mitigation package generously replaces the parkland facilities, resources, and habitats that would be affected by construction of the ICC along Corridor 1” and stated that “[t]he Department therefore advises the FHWA that, in our view, the requirements under Section 4(f) have been satisfied by the avoidance, minimization, and mitigation that is specified in the Final EIS” for Corridor 1.

For a more detailed description of the mitigation package for the Selected Alternative, see *Table 5* below and pages 20 to 32 of this ROD.

3. Mitigation for Corridor 2

Mitigation for Corridor 2 was developed in an equal level of detail to the mitigation package for Corridor 1. The discussion of mitigation in the Final EIS for Corridor 2 is not repeated here because Corridor 1 is the Selected Alternative. For a detailed description of the mitigation package for Corridor 2, see *Section V.H.4* (Pages V-65 to V-66) of the Final EIS. The mitigation package for Corridor 2 included somewhat less parkland because the impacts of Corridor 2 on parkland were lower. In addition, the package included measures to mitigate impacts to the 8 to 10 historic sites that would be used or adversely affected by Corridor 2. Finally, the mitigation package for Corridor 2 also included the same range of other mitigation measures and environmental stewardship measures that were incorporated into Corridor 1.

Table 5
Parkland for Selected Alternative

Property	Acres	Description
Dungan Property North	44.9 acres	The Dungan Property North would provide 44.9 acres of replacement parkland adjacent to existing parkland in the North Branch Rock Creek Watershed. This property would provide stream valley protection, passive recreational opportunities, and community open space. It contains 738 linear feet of streams, 20 acres of forest, and 24.5 acres that would be reforested by SHA. Once reforested, there is potential in the future for up to 87 acres of new FIDS habitat on site and on adjacent lands in North Branch Stream Valley Park.
Llewellyn Property	23.2 acres	The Llewellyn property would provide 23.2 acres of replacement parkland adjacent to the Northwest Branch Recreational Park. The property would include construction of four baseball/softball fields, one soccer field, onsite parking, and restrooms. The replacement fields would be superior in quality than the existing fields because they are located in upland areas that are less prone to flooding. Access to these replacement fields would be provided directly from MD 28, which is also an improvement over access to the existing fields from Layhill Road and Bonifant Road. This property would also provide 3 acres of reforestation land.
Peach Orchard Allnut Property	118 acres	The Peach Orchard Allnut property would provide 118 acres of replacement parkland in the Upper Paint Branch Watershed. This site would provide stream valley protection and passive recreational opportunities. The Peach Orchard Allnut site would provide 15.9 acres of wetlands, 2,100 linear feet of streams, and 28.3 acres of forest. There would also be approximately 90 acres of potential reforestation land and 67 acres of potential future FIDS habitat. Also, because it is at the headwaters of the Paint Branch, it would serve to protect this portion of the stream.
Santini Road Properties	49.2 acres	The Santini Road Properties would serve to protect undeveloped land in the sensitive Rocky Gorge watershed, thereby providing stream valley protection, passive recreation, and community open space in this portion of the County. Though not directly adjacent to the T. Howard Duckett Watershed Property, these properties would be conserved as parkland and protected from future development. Therefore, they would continue to offer additional protection for the T. Howard Duckett (Rocky Gorge) Reservoir. These sites contain 35.2 acres of existing forest and an additional 14 acres would be reforested.
Southern Asia Adventist Property	23.2 acres*	The Southern Asia Adventist Property would provide 23.2* acres of replacement parkland in the Upper Paint Branch Watershed. The site would provide stream valley protection and passive recreational opportunities. It contains extensive areas of stream valley buffer and good quality forest. It also contains the critical headwater wetland complexes of the Left Fork of the Paint Branch. These features would be protected by converting this land to parkland.
McNeill Property	36.2 acres*	The McNeill Property would provide 36.2* acres of replacement parkland in the Upper Paint Branch Watershed. The site would provide stream valley protection and passive recreational opportunities. It contains extensive areas of stream valley buffer and good quality forest. It also contains the critical headwater wetland complexes of the Left Fork of the Paint Branch. These features would be protected by converting this land to parkland.
Casey Property at Hoyles Mill	459 acres	The Casey Property at Hoyles Mill is located outside of the ICC Study Area, near Poolesville in Montgomery County. This site, which would become public parkland, would add an additional 459 acres to the park system adjacent to several existing parks including Seneca Creek State Park, South Germantown Recreational Park, Little Seneca Stream Valley Park and Hoyles Mill Conservation Park. Preservation of this property will add over 340 acres of existing forest and 214 acres of existing FIDS habitat to the park system. There is approximately 118 acres of open land that may be available for reforestation, which could also help increase the FIDS habitat to approximately 340 acres on site.
Unused DTA in Northwest Branch Stream Valley Park - Unit 5	21.3 acres	The unused portion of the DTA in Northwest Branch Stream Valley Park - Unit 5 would be converted to parkland adding 21.3 acres to the park. The conversion of this land would protect land adjacent to the existing park that has many of the same natural features and passive recreational functions as the adjacent parkland.
SHA-Owned Unused DTA Adjacent to Upper Paint Branch Stream Valley Park	7.6 acres	The unused SHA-owned DTA adjacent to Upper Paint Branch Stream Valley Park will be transferred to M-NCPPC for incorporation into the park. This area includes forests, wetlands, streams, and FIDS habitat. It was originally acquired by SHA for the ICC. It is not needed due to a change in the corridor for the ICC on the M-NCPPC's Master Plan in 1982. For further information about this 7.6-acre parcel, see the Addendum to the Section 4(f) Evaluation, which is attached as to this ROD as Attachment G .
TOTAL	782.6 acres (total); 776.6 (net)*	* The total of the properties listed above is 782.6 acres. However, it is expected that approximately six acres of land (total) located on the Southern Asia Adventist and McNeill Properties would be reserved for the planned widening of MD 198. When this acreage is subtracted, the net total is 776.6 acres ²⁵

²⁵ SHA has committed to transfer the unused Designated Transportation Area described in this table to M-NCPPC (the 21.3 acres in Northwest Branch Stream Valley Park and the 7.6 acres adjacent to the Upper Paint Branch Stream Valley Park). In addition it may be possible, in several parks, to use less than the entire Designated Transportation Area. SHA will include incentives in construction contracts to minimize the use of land within the Designated Transportation Areas. If such lands are available, they will be offered to M-NCPPC after construction of the ICC has been completed. See Item # 159 in Attachment A (Summary List of Project Commitments) to this ROD.

4. Environmental Stewardship Measures

For both Corridor 1 and Corridor 2, SHA also committed to construct a comprehensive package of environmental stewardship projects. These measures were intended to address stresses to the natural and socio-economic environments caused by past development in the area, above and beyond the measures that are required to mitigate the impacts of the ICC. Most of the environmental stewardship activities included in the Selected Alternative will benefit or enhance parkland in some way. See *Attachment A* and the discussion on pages 14 to 16 of this ROD. A similar range of environmental stewardship activities were included with the Corridor 2 Alternatives. See Pages VI-3 to VI-8 of the Final EIS.

The DOI found that the environmental stewardship activities and mitigation measures that SHA has committed to undertake as part of the ICC will, in several instances, actually benefit the impacted park resources. For example, DOI explained its view that Northwest Branch within Northwest Branch Stream Valley Park will be improved after the ICC is built. Northwest Branch is experiencing extreme bank erosion and the pools are filling with sediment. DOI stated in this regard: “The Department believes that the Lead Agencies went beyond the mitigation requirements to ensure that Northwest Branch shows an improvement after project completion.” Page 8 letter of 2/16/06.

J. Overall Comparison of Corridor 1 and Corridor 2

After ensuring that Corridor 1, Corridor 2AX, and 2DB each incorporated all possible planning to minimize harm, FHWA compared these three alternatives to one another. The comparison of these alternatives first focused on their relative harm to Section 4(f) resources; and then considered the issue of prudence and feasibility.

1. Comparison of Harm

In terms of simple acreage “used,” the Selected Alternative exceeded the Section 4(f) use of Corridor 2AX by 55.7 acres (88.1 acres vs. 32.4 acres) and Corridor 2DB by 40.2 acres (88.1 acres vs. 47.9 acres).²⁶ However, there are several important qualifications to these numbers.

- The impacts to parkland from Corridor 1 are consistent with the park owner’s original vision and current plans for all of these parks. As noted previously, the M-NCPPC as park owner developed a single comprehensive plan that called for a system of north-south parks crossed by an east-west, limited-access highway. Corridor 1 is fundamentally consistent with that plan. The consistency of Corridor 1 with this long-standing plan is an important factor to consider when weighing the relative acreage of parkland impact.
- The majority of the disparity in acreage (32.7 acres) results from the decision to shift the alignment of Corridor 1 outside the reserved corridor.²⁷ These shifts were incorporated into Corridor 1 with the concurrence of resource agencies and M-NCPPC, in order to minimize harm to parklands and other natural resources in Northwest Branch Stream Valley Park - Unit 5 and Upper Paint Branch Stream Valley Park. If the alignment had remained within the reserved corridor, as permitted under Section 4(f), the disparity in acreage would actually be much smaller: the acreage used by Corridor 1 would exceed Corridor 2AX by 23.0 acres (55.4 acres vs. 32.4 acres) and would exceed Corridor 2DB by only 7.5 acres (55.4 acres vs. 47.9 acres).

²⁶ These impact totals have been updated since the Final EIS to reflect the DOI Section 4(f) Addendum and Post-Final EIS Refinements, appended as Attachments G and C, respectively.

²⁷ This disparity was incorrectly stated on Page V-116 of the Final EIS as 32.5 acres. The correct number at the time of the FEIS, as stated on pp. 99-101 of the FEIS, was 33.0 acres. Since the FEIS, this number has changed slightly due to refinements in the engineering of the Selected Alternative. The updated number – 32.7 acres – has been used in this ROD.

- Approximately 16 acres of the use caused by Corridor 1 results from the incorporation of temporary measures that will help to reduce the impact of the highway. For example, the project incorporates erosion and sedimentation control basins, which help to protect streams from stormwater run-off during construction. These temporary facilities are shown on the project plans and have been incorporated into the total acreage of Section 4(f) use for both of the build alternatives. These temporarily used lands will be restored and returned to M-NCPPC following construction.
- Construction of either of the Corridor 2 Alternatives would impact several properties designated by M-NCPPC as planned future parkland because they contain important natural resources. These resources are currently privately owned and, therefore, FHWA's policy is that Section 4(f) does not protect them. However, the use of these lands for transportation purposes is not consistent with M-NCPPC's intentions for their future use. Corridor 2AX would impact approximately 17.1 acres of planned parkland and Corridor 2DB would impact approximately 14.3 acres of planned parkland. Corridor 1 would avoid these sites. See *Section V.O.1* (Page V-116 (footnote 9)) of the Final EIS and *Figure V-55*.
- Construction of Corridor 2AX, which would use the smallest acreage of Section 4(f) land of any alternative, would adversely affect the historic Free Methodist Church Camp Meeting Ground. This historic property is particularly sensitive due to the type of activities that occur on the property and which contribute to its significance. These activities include religious retreats where contemplation and meditation in a serene, forested outdoor setting are important aspects of the retreat experience. Preservation of the Free Methodist Church Camp Meeting Ground is significant because it is the last

remaining resource of its kind in Maryland or Virginia. Corridor 2AX was developed to minimize impacts on this resource, by shifting the alignment away from the immediate vicinity of the property. While Corridor 2AX avoids a constructive use, it still results in an adverse effect as determined by the Maryland Historical Trust. The construction of the highway close to this camp would not only result in some noise and visual impacts, but also would heighten the potential for additional development to encroach upon this resource. The impacts from Corridor 2AX on this unique historic site contribute to the overall harm to Section 4(f) resources that would result from Corridor 2AX, even though the harm is not considered a “use” and thus is not included in the acreage calculations.

- The overall acreage disparity between Corridor 1 and Corridor 2 is relatively modest in the context of the overall size of the impacted parks and in the context of the County’s park system. The M-NCPPC alone owns over 32,000 acres of parkland in Montgomery County (the State and the National Park Service own additional parklands in the County).
- The percentages of each park that would be impacted by these alternatives are relatively low – all are less than eight percent and many are less than five percent of the individual park affected. See *Section V.N.1* (Pages V-99 to V-101) of the Final EIS.
- Finally, and perhaps most importantly, the impacts to parkland associated with all of the Build Alternatives would be overwhelmingly mitigated. The mitigation described above will result in a substantial net increase in the size of the park system, and will collectively support the natural resource values associated with the parkland. As a result of all of these efforts, the harm to parkland under each alternative would be neutralized by the proposed mitigation and, in some cases, would even improve upon the existing conditions of the resources.

In sum, after the ICC mitigation, the County's park system as a whole would be larger and provide additional recreational opportunities and conservation of natural resources. Thus, when both quantitative and qualitative factors, as well as mitigation, are all taken into account, the alternatives under consideration are substantially equal to one another in terms of their relative harm to Section 4(f) parkland.

With regard to historic resources, Corridor 1 would not use land from any historic property and would have adverse effects on only two properties (Cashell Farm and Willow Grove). Corridor 2AX would involve direct uses of land (which would also result in adverse effects) from two historic properties (Holland Store and James Holland House and Alloway), and would have adverse effects on seven additional properties that would not be directly impacted. The seven adversely impacted properties include: Cashell Farm, Willow Grove, Amersley, Llewellyn Fields, Free Methodist Church Camp Meeting Ground, Columbia Primitive Baptist Church, and Isaac Burton, Jr. House.

Corridor 2DB would involve direct uses of the same two properties as Corridor 2AX, but would have adverse effects on only six additional properties as there would be no adverse effect to the Free Methodist Church Camp Meeting Ground. All of these impacts to historic properties would be mitigated to the fullest possible extent. However, these types of impacts cannot be oftentimes readily mitigated. In many cases, impacts to cultural resources remove or diminish qualities that cannot be replaced, regardless of the proposed mitigation. For example, noise impacts that would occur at the Alloway Site and Cemetery and the Holland Store and James Holland House could not be mitigated through the use of sound barriers without creating additional adverse visual impacts on these properties. In addition, the location of an interchange

and a park and ride lot at Layhill Road would result in traffic, including buses, passing in the vicinity of the Holland Store and James Holland House. Similarly, the location of an interchange at MD 650 would have a similar result on the Alloway Site and Cemetery. These types of impacts cannot be mitigated and would ultimately contribute to diminishing the rural character of the area.

When considering all appropriate factors concerning Section 4(f) resources, including the plans and judgments of the jurisdictional officials of the affected resources, all proposed mitigation, and the proposed environmental stewardship features, the harm to Section 4(f) resources would be substantially equal for the Corridor 1, Corridor 2AX and Corridor 2DB Alternatives.

2. Prudence

Based on the engineering work completed to date, Corridor 1, Corridor 2AX, and Corridor 2DB alternatives are all feasible, in the sense that they are constructible as a matter of sound engineering. However, for the reasons discussed below, Corridors 2AX and 2DB are imprudent, which provides an additional basis for dismissing them from consideration under Section 4(f).

The greatest number and severity of unique and unusual problems were identified for Corridor 2AX. These are:

- Severe disruption of local land use control resulting from the construction of a highway two to three miles north of the designated transportation corridor, in the rural, northern portion of Montgomery County, which has been purposefully planned for lower density development and less transportation infrastructure.
- Encouragement of sprawl development because only 35 percent of the alignment is located within a State Smart Growth Law Priority Funding Area (PFA) and because four of the proposed interchanges would be located outside of a PFA. The State Smart Growth law is discussed on page 6 and pages 60 to 61 of this ROD.
- Increased likelihood of undesirable re zonings that are inconsistent with local land use plans. This issue is discussed on pages 53 to 63 of this ROD.
- Impacts to Montgomery County's agricultural heritage because a portion of the alignment is located within the County's Agricultural Wedge and because the alternative would impact more farms and more farmland than the Corridor 1 Alternative.
- A severe secondary impact to rural Sandy Spring, Ashton, and Brighton, which were forecasted to undergo more than twice as much secondary development with either of the Corridor 2 alternatives than with Corridor 1.
- Significantly more residential displacements, including extraordinary disruption to the Peach Orchard Estates community.
- Substantially greater harm to historic resources with adverse effects to nine historic properties (in comparison to two for Corridor 1.)
- Impacts to the sensitive headwaters of the left and right fork tributaries to Paint Branch by way of construction sediment loads in the near term and increased pollutant loads,

including roadway deicers, in the long term. Headwaters are more problematic to mitigate than further downstream portions of a watershed.

- Greater impacts to the Patuxent River and its drinking water reservoirs because impacts to streams in the Rocky Gorge watershed could potentially affect water quality in the reservoir.
- Limited mobility benefits as compared to Corridor 1 because the alternative would be less heavily traveled, would provide less access to jobs, and would eliminate Norbeck Road Extended.

These problems with Corridor 2AX, taken together, make the selection of Corridor 2AX imprudent. In concluding that Corridor 2AX is imprudent, FHWA has taken into account the mandates of Section 109(h) of Title 23, which requires FHWA to reach a project decision that is in the best overall public interest taking into account the need for safe, fast, and efficient transportation, public services, and the costs of eliminating or minimizing adverse natural environmental and community effects. For additional discussion of the issues supporting this finding, see *Section V.N.3.a-h* (Pages V-106 to V-116) of the Final EIS.

With regard to Corridors 1 and 2DB, the parklands used (excepting those used as a result of efforts to minimize harm) are similar in quantity and quality, and in both corridors, all of the acreage used would be replaced and lost functions and resources would be satisfactorily mitigated. However, under Corridor 2DB there could be an impact to the safety of the Rocky Gorge drinking water reservoir. Corridor 2DB would also cause severe disruption of local land use control; would encourage sprawl development; would impact Montgomery County's agricultural heritage; would cause a possible extraordinary secondary impact to rural Sandy

Spring, Ashton, and Brighton; would cause greater harm to historic resources; and would create fewer mobility benefits. The problems with Corridor 2DB, taken together, make the selection of Corridor 2DB imprudent. For additional discussion of the issues supporting this finding, see *Section V.N.3.a-h* (Pages V-106 to V-116) of the Final EIS.

In their comments on the Draft EIS, both EPA and DOI indicated a preference for Corridor 2 with Burtonsville Option A. Both agencies placed a higher value on avoiding the natural resource impacts of Corridor 1 in favor of impacting the social, cultural, and community resources within Corridor 2. This viewpoint was carefully considered, but ultimately Corridor 1 was chosen for the reasons explained in Section V of this ROD. In its comments on the Final EIS, EPA noted its earlier preference for Corridor 2, but acknowledged that the Lead Agencies “have incorporated many features intended to reduce or mitigate impacts.” EPA did not raise any regulatory objections to proceeding with Corridor 1. In its comments on the Final EIS, DOI stated that “in our view, the requirements under Section 4(f) have been satisfied by the avoidance, minimization, and mitigation that is specified in the Final EIS” for Corridor 1.

Based upon the above considerations, as well as the complete record including the Final EIS and the Addendum to the Section 4(f) Evaluation, FHWA finds that there is no feasible and prudent alternative to the use of land from Mill Creek Stream Valley Park, Rock Creek Regional Park, North Branch Stream Valley Park, Layhill Local Park, Northwest Branch Recreational Park, Northwest Branch Stream Valley Park - Unit 5, and Upper Paint Branch Stream Valley Park, and that the Selected Alternative (Corridor 1) includes all possible planning to avoid and minimize harm to these resources resulting from such use.

K. Coordination

1. U.S. Department of Interior Coordination

Section 4(f) also requires that the Section 4(f) Evaluation be provided for coordination and comment to the DOI. Through participation in the Interagency Working Group, representatives from DOI were given extensive opportunities to provide input during the development of the Draft Section 4(f) Evaluation and also to comment on the Draft Section 4(f) Evaluation during the Draft EIS comment period. However, the DOI noted in its comments on the Draft EIS that formal consultation would occur after the project sponsor completed a least harm analysis for Section 4(f) properties, selected a preferred alternative, and committed to minimization and mitigation measures that would become part of the project.

The DOI reviewed the Final Section 4(f) Evaluation, which was published as part of the Final EIS. In its comments on the Final EIS, the DOI concurred that approval of Corridor 1 is consistent with Section 4(f). Additional coordination with DOI occurred after the Final EIS was published, in connection with the Addendum to the Section 4(f) Evaluation. In its comments on the Addendum, the DOI re-affirmed that the approval of Corridor 1 is consistent with Section 4(f). In the same letter, the DOI also confirmed (in response to a specific question from FHWA) that it was satisfied with the handling of constructive use issues in the Final EIS.

2. M-NCPPC and WSSC Coordination

As owners of the parks and recreational resources in the Study Area that could be affected by the build alternatives, the M-NCPPC and Washington Suburban Sanitary Commission (WSSC) played an important role in the process. Both of these agencies vigorously

advocated for the selection of Corridor 1. Both agencies assisted in identifying the contributing features of the Section 4(f) properties within their jurisdiction, assessing impacts on those properties, and determining appropriate mitigation. WSSC also highlighted the non-renewable nature of the reservoir and the negative impact Corridor 2 could have on WSSC's mission to provide safe and reliable drinking water. See letters of 1/5/05 and 2/2/05, Appx R-5 pages 17 to 23. In a letter dated September 21, 2005, the M-NCPPC congratulated SHA for going to "exceptional lengths" to minimize impacts on M-NCPPC lands and concurred with the mitigation package developed for Corridor 1.

L. Special Issues

This section provides additional information regarding several specific issues that were considered in preparing the Section 4(f) Evaluation for this project.

1. Re-evaluation of Corridor 2AA

Additional coordination with the DOI occurred in November 2005, during preparation of the Final EIS. The DOI requested that FHWA re-consider a Corridor 2 Alternative that includes Spencerville Option A to Burtonsville Option A, which would have substantially diminished the integrity of the historic Free Methodist Church Camp Meeting Ground, but would have avoided the residential displacements, increased cost, and community disruption associated with Corridor 2AX (that is, Corridor 2 with Spencerville Option A and Burtonsville Option X). The DOI asked whether a Corridor 2 alternative that includes Spencerville Option A to Burtonsville Option A (Corridor 2AA) would have been selected if it had been analyzed along with Corridors 1, 2AX,

and 2DB. The agency requested that this alternative be reconsidered in the Final Section 4(f) Evaluation.

In response to DOI's request, the Lead Agencies re-examined the evaluation of end-to-end alternatives to determine if consideration of Corridor 2AA would influence the conclusion of the analysis. This additional evaluation confirmed the preliminary conclusion offered in the Final Section 4(f) Evaluation.

Corridor 2AA would result in a constructive use of the Free Methodist Church Camp Meeting Ground based on noise, visual intrusion, and possible vibration, as well as effects to the historic rural setting. As described above, this resource is particularly sensitive due to the type of activities that occur on the property. These activities include religious retreats where contemplation and meditation in a quiet, serene, outdoor setting are important aspects of the retreat experience. The placement of the ICC in the location of Corridor 2AA would substantially impair the use of this resource for its intended purpose. Preservation of the Free Methodist Church Camp Meeting Ground is significant because it is the last remaining resource of its kind in Maryland or Virginia. Corridor 2AX was initially proposed as a result of an analysis of potential options to avoid the Section 4(f) constructive use of the Free Methodist Church Camp Meeting Ground associated with Corridor 2AA. Particular importance was placed on avoiding this resource. In comparison to Corridor 2AA, the southern alignment shift utilized by Corridor 2AX would avoid constructive use, but it would still adversely affect the Free Methodist Church Camp Meeting Ground and would have severe impacts on the Peach Orchard Estates community. More than half of this community would be displaced and the remaining homes would experience noise and visual impacts.

In terms of the relative harm to Section 4(f) resources associated with these alternatives, the Section 4(f) harm associated with Corridor 2AA would be greater than that of Corridor 2AX. Specifically, Corridor 2AA would have all of the Section 4(f) impacts of Corridor 2AX, *plus* the constructive use of the Free Methodist Church Camp Meeting Ground. Therefore, the conclusions reached with regard to Corridor 2AX – namely, that it would be “substantially equal” to Corridor 1 in terms of harm to Section 4(f) resources – would apply with even greater force to Corridor 2AA. If anything, because the harm to the Church Camp cannot be effectively mitigated, Corridor 2AA would have *greater* overall harm to Section 4(f) resources than Corridor 1.

In terms of prudence, Corridor 2AA would have fewer displacements and lower costs than Corridor 2AX, because it would avoid the impacts on the Peach Orchard community. However, aside from this advantage relative to Corridor 2AX, Corridor 2AA shares many of the same drawbacks as Corridor 2AX and Corridor 2DB. Like those alternatives, Corridor 2AA (where it diverges from Corridor 1) is located largely *outside* Priority Funding Areas, which are planned for growth, and largely *within* the County’s Agricultural Wedge, which is intended to be reserved for rural, agricultural land uses. In addition, like the other versions of Corridor 2, Corridor 2AA would provide lower mobility benefits than Corridor 1. Therefore, like Corridor 2AX and Corridor 2DB, Corridor 2AA would also be found imprudent. With the incorporation of the mitigation described herein for Corridor 1, the overall harm is minimized and the unique and extensive problems with Corridors 2AX and 2DB are avoided.

2. Paint Branch Addendum

After the Final EIS was issued, FHWA circulated an Addendum to the Section 4(f) Evaluation for this project. The purpose of the Addendum was to address the Section 4(f) status of three parcels of land within the Upper Paint Branch Stream Valley Park. In the Final EIS, these three parcels were identified as part of the DTA, which meant that they were considered to be reserved as transportation right-of-way (i.e., non-parkland). Comments on the Final EIS raised questions about the status of these parcels. Based on further research, FHWA concluded that the three parcels should be considered parkland for purposes of Section 4(f), despite some ambiguities in the property records. This determination resulted in a net increase of 4.9 acres in the Section 4(f) impacts of Corridor 1, although there was no change in environmental impacts. The only change is that portions of the alignment, which previously were considered transportation right-of-way for purposes of Section 4(f), are now considered parkland. This change in designation has required a recalculation of the Section 4(f) acreage totals. The actual impacts of the project on the environment are unchanged and are reflected accurately in the Final EIS. The Addendum did not warrant preparation of a supplemental EIS because there was no change in the project itself and the revised characterization of 4.9 acres of land does not result in any additional impact to any environmental resource, nor does it change the results of the Section 4(f) analysis.

Accordingly, in the Addendum, FHWA reaffirmed its conclusion that “there is no feasible and prudent alternative to the use of land from Mill Creek Stream Valley Park, Rock Creek Regional Park, North Branch Stream Valley Park, Layhill Local Park, Northwest Branch Recreational Park, Northwest Branch Stream Valley Park - Unit 5, and Upper Paint Branch

Stream Valley Park, and the proposed action (the Corridor 1 Alternative) includes all possible planning to minimize harm to these resources resulting from such use.”

This change in status of three parcels within a known park did not clearly require circulation of a separate Section 4(f) Evaluation under FHWA regulations. However, the procedures for a separate Section 4(f) Evaluation were followed. Accordingly, a Draft Addendum was circulated to the M-NCPPC, as park owner, and to the DOI for comment. The M-NCPPC responded on May 15, 2006, with a letter stating that it agreed that the Addendum did not affect the selection of Corridor 1. The DOI responded on May 16, 2006, with a letter reaffirming its concurrence in the conclusions of the Section 4(f) Evaluation, including the selection of Corridor 1. These letters and the Final Addendum are appended to this ROD as *Attachment G*.

3. De Minimis Provisions in SAFETEA-LU

The authority to make a “de minimis impact” finding under Section 4(f) was established in the Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which was enacted on August 11, 2005, well after the Draft EIS was published. FHWA issued guidance for this provision of SAFETEA-LU on December 13, 2005, just a few weeks before the ICC Final EIS was issued. With regard to ongoing projects, the guidance said that the decision about whether to apply the de minimis impact criteria “is a matter of agency choice and professional judgment.” The guidance lists several factors that can be considered in making the decision, including the stage of NEPA process. Based on that guidance, in particular the advanced stage of the NEPA process, FHWA decided to proceed with a traditional Section

4(f) evaluation for this project. This approach is fully consistent with the December 13, 2005 guidance.

While FHWA has decided not to provide proposed de minimis impact findings, FHWA has considered the potential application of this provision to the ICC build alternatives. The following general conclusions were reached:

(1) The historic resources used by Corridor 2 would not qualify for a finding of de minimis impact, because findings of “adverse effect” were made for all of those properties in the Section 106 process under the National Historic Preservation Act. Under SAFETEA-LU, the de minimis impact finding can be made for a property only if the Section 106 process results in a finding of “no adverse effect” for that property.

(2) Many, and possibly all, of the parkland resources used by Corridors 1 and 2 may have qualified for finding of de minimis impact. Under SAFETEA-LU, a finding of de minimis impact must take into account any mitigation or enhancement measures that are incorporated into the project. For the ICC, both of the build alternatives included commitments to provide replacement parkland that far exceeds the acreage of the parkland that would be acquired; this mitigation package was carefully developed, with the concurrence of the M-NCPPC as park owner, to ensure that it replaced the functions and values of each of the impacted parcels. The Section 4(f) evaluation concluded, for both build alternatives, that “the harm to parkland under each alternative would be neutralized by the proposed mitigation and, in some cases, would even improve upon the existing conditions of the resources.” This finding is, in substance, equivalent to a finding that each of the parkland impacts would be de minimis.

In short, findings of de minimis impact were not required to be made for this project, and if they had formally been made, they would not have changed the outcome of the Section 4(f) Evaluation.

4. Unused “Designated Transportation Area”

After completion of the ICC construction, the Lead Agencies will offer any unused portion of the DTA to become parkland after construction of the ICC. This land is currently owned by the M-NCPPC as transportation right-of-way, so there would be a change in status – i.e., its status would change from reserved right-of-way to parkland. This change would be the direct responsibility of the M-NCPPC, as park owner. The M-NCPPC has informed SHA that it will make this change after the ICC is built and it is clear that the land will not be needed for the ICC.

As noted above, the best available estimate at this time is that there will be approximately 28.9 acres of unused DTA. This amount includes 21.3 acres of the DTA in Northwest Branch Stream Valley Park, where the Selected Alternative includes an “S curve” that goes outside the reserved corridor and 7.6 acres of unused SHA owned DTA adjacent to Upper Paint Branch Stream Valley Park in order to minimize impacts on natural resources.

In addition it may be possible, in several parks, to use less than the DTAs. SHA will include incentives in construction contracts to minimize the use of land in DTAs. If such lands are available, they will be offered to M-NCPPC after construction of the ICC has been completed. For further description of the unused DTA, refer to *Table 5* above.

In addition, SHA has committed to include incentives in construction contracts that will minimize the use of the DTA (as well as minimizing impacts on parkland). These incentives will

help to minimize the footprint of the project and thereby increase the amount of land that remains available for use as parkland.

5. Constructive Use in Parklands

At various points in this study, and in previous studies, questions have been raised about whether a constructive use analysis is required for parklands located adjacent to the right-of-way for the ICC. FHWA has consistently concluded that a constructive use analysis is not required for these parklands.²⁸ There are two distinct reasons for this conclusion, as set forth below.

Parklands Adjacent to a Reserved Transportation Corridor

First, FHWA's regulations and Section 4(f) Policy instruct that a constructive use analysis is not required for parkland located adjacent to a reserved transportation corridor through a park. The underlying principle is that reservation of a corridor for a future highway reflects the park owner's intention to accept not only the direct impacts on the land within the corridor, but also the indirect impacts that will necessarily result from constructing a highway in that location. Based on this principle, a highway constructed entirely within a reserved corridor does not result in any direct or constructive use of parkland.²⁹ Therefore, it is unnecessary to assess the potential for a constructive use for any alternative constructed entirely within a reserved transportation corridor (known as a DTA in this study).

²⁸ As defined in FHWA regulations, a constructive use occurs when a transportation project "substantially impairs" the protected activities, features, or attributes of a Section 4(f) resource. The Section 4(f) evaluation in the Final EIS included an analysis of the potential for a constructive use on numerous Section 4(f) resources along both Corridor 1 and Corridor 2. See Final EIS, pp. V-125 to V-164.

²⁹ See 23 CFR 771.135(p)(5) and FHWA's Section 4(f) Policy Paper (March 2005), Question # 16 ("[T]he requirements of Section 4(f) do not apply to the subsequent use of the reserved area for its intended highway purpose. This is because the land used for the highway project was reserved from and, therefore, has never been part of the protected 4(f) area. Nor is there a constructive use of the 4(f) resource, since it was jointly planned with the highway project.").

Parklands that are Directly Used

FHWA's regulations and Section 4(f) Policy also instruct that an analysis of constructive use is not performed when a Section 4(f) property is directly used by a highway project. Thus, once a direct use is found, FHWA does not undertake a separate analysis to assess the potential for a constructive use of the same resource. Instead, the finding of a direct use leads immediately to consideration of "all possible planning to minimize harm" to the Section 4(f) property, and the minimization-of-harm measures address all aspects of harm, including harm that results from indirect effects.

This issue was raised by the DOI in its comments on the Draft EIS. FHWA responded to that comment by summarizing the policy described above. The DOI did not raise the issue in its comments on the Final EIS. Because several comment letters from the public asked for clarification of DOI's position, FHWA sought clarification of DOI's position on the constructive use issue in a letter dated May 5, 2006. In a letter dated May 16, 2006, DOI responded by stating that "[t]he Department is satisfied with the constructive use analysis presented in the Final EIS." This coordination confirmed that there are no unresolved issues with DOI regarding the constructive use analysis for this project.

6. Changes from Section 4(f) Analyses in Previous Studies

In previous studies, during the 1980s and 1990s, Section 4(f) was frequently cited by stakeholders, resource agencies, and at times the transportation agencies themselves as a significant obstacle to selection of Corridor 1. The record includes correspondence from SHA to local elected officials in 1997 and 1998 that specifically mentions Section 4(f) as the basis for concluding during a previous study that the "Master Plan Alternative" (similar to Corridor 1)

could not be selected. The record also includes comments from DOI on previous studies for this project, in which DOI objects to approval of the Master Plan Alternative.

Since those previous studies, the project itself has changed in ways that have made it possible for Corridor 1 to be approved under Section 4(f). The most significant change from previous studies is the scale of SHA's commitment to avoid, minimize, and mitigate impacts to parkland. This extraordinary commitment has been described in detail in this ROD at pages 106 to 110. This fundamental change in the project has greatly reduced impacts to parkland, while also providing for replacement parkland that will greatly enhance the park system. This mitigation package – which provides replacement parkland at an 8 to 1 ratio – has been developed in close cooperation with the M-NCPPC as park owner, and has been accepted by the M-NCPPC as providing “environmentally equivalent” land. The M-NCPPC has also noted that the 458-acre Casey Property at Hoyles Mill – which was not offered as mitigation in any previous study – is the “single best natural resource addition that can be made to the park system.” Based specifically on this mitigation commitment, the DOI has modified its former opposition to Corridor 1: in its Final EIS comment letter (dated Feb. 24, 2006), DOI stated “the requirements under Section 4(f) have been satisfied by the avoidance, minimization, and mitigation that is specified in the Final EIS” for Corridor 1.

In addition to the greatly increased commitment to avoidance, minimization, and mitigation, there has been an important change in the State's planning framework since the previous study.³⁰ The Smart Growth and Neighborhood Conservation Act of 1997 – commonly known as the Smart Growth Act – was passed by the Maryland State legislature in 1997, taking effect on October 1, 1997. This law established a new policy that seeks to concentrate development in built-up areas, while limiting development in more rural areas. The law seeks to

³⁰ The 1997 Draft EIS was released by FHWA and SHA on April 11, 1997. A Final EIS was never issued.

achieve that goal by concentrating State spending on infrastructure within designated PFAs. Projects that are located outside PFAs cannot be funded by State agencies, unless they meet certain criteria and are approved by the State's Board of Public Works based on the recommendation of the Maryland Department of Planning (MDP).

In this case, Corridor 1 and Corridor 2 differ significantly in terms of their consistency with the goals of the Smart Growth Act. As noted in the Final EIS, 64% of Corridor 1 is located within a PFA, while only 35% percent of the Corridor 2AX and 2DB Alternatives are located in such areas; in addition, Corridor 2 would result in 44 percent more secondary development outside of PFAs than Corridor 1 (1,997 acres for Corridor 2 vs. 1,385 acres for Corridor 1). See *Section V.N.3.b* (Page V-108) of the Final EIS. Based on these and other factors, the MDP found that Corridor 1 more fully meets the objectives of the Smart Growth Act. The MDP's analysis, reflected in a white paper dated July 8, 2005, has been included in the project files.

While the State's Smart Growth legislation does not override Section 4(f), it does inform our assessment of alternatives under Section 4(f). In particular, this law reflects a State policy that seeks to encourage growth in some areas, while discouraging it in others. Corridor 1 generally supports that policy by concentrating growth in built-up areas where growth has been planned; Corridor 2 is contrary to that policy, by encouraging growth in more rural areas, which have not been planned for growth. These factors provide additional support, not available in the 1997 study, for our decision to approve the selection of Corridor 1.

Finally, this project differs from previous studies because the purpose and need for this project includes the goal of supporting local land use plans. This element of the purpose and need heightens the importance of consistency with land use plans when evaluating the prudence

of alternatives under Section 4(f). However, this element of the purpose and need is not dispositive in our determination that approval of Corridor 1 is consistent with Section 4(f).

There are many other differences as well between the current and previous studies. These differences are summarized in the Final EIS at pp. S-13 to S-18.

M. Conclusion

Based on the entire record, including the Section 4(f) Evaluation and the Addendum to the Section 4(f) Evaluation, FHWA finds that (1) there is no prudent and feasible alternative for this project that avoids the use of Section 4(f) property and (2) the Selected Alternative incorporates all possible planning to minimize harm resulting from the use of Section 4(f) property.

VIII. AIR QUALITY DOCUMENTATION

This section of the ROD summarizes the various air quality requirements that are applicable to the ICC and documents the Selected Alternative's compliance with the relevant air quality requirements. Because highway-related air quality issues are highly technical, the FHWA had its own team of national experts carefully review the air quality issues raised on the Final EIS and the PM_{2.5} project level conformity determination. The team's responses to the individual comments are included in the volume accompanying this ROD entitled "Record of Responses to Public Comments."

A. Criteria Pollutants and Transportation Conformity

The ICC is located within the Washington, DC-MD-VA nonattainment areas for the 8-hour ozone (O₃) standard and for fine particulate matter (PM_{2.5}). In addition, Election Districts 4, 7 and 13 in Montgomery County and Election Districts 2, 6, 12, 16, 17 and 18 in Prince

George's County are part of the Washington, DC-MD-VA Carbon Monoxide (CO) Maintenance Area.³¹ For all other pollutants for which EPA has established National Ambient Air Quality Standards (NAAQS), Montgomery and Prince George's Counties are designated as attainment areas, meaning the pollutant levels in the ambient air are currently within the maximum permissible concentrations.

In accordance with Section 176(c) of the Clean Air Act (42 U.S.C. 7506(c)), transportation projects in nonattainment and maintenance areas must be found to conform to the State air quality implementation plan. This demonstration is achieved by meeting the criteria of the transportation conformity regulations (40 CFR 93). Project-level conformity determinations must be based on the latest planning assumptions (40 CFR 93.110), the latest emissions model (40 CFR 93.111), and consultation (40 CFR 93.112). The Final EIS, the Air Quality Technical Report and Addendum, and the PM_{2.5} Project-Level Conformity Determination have met these requirements.

The transportation conformity rule (40 CFR 93.114 and 93.115) requires that a currently conforming regional long-range transportation plan and a regional short-range TIP must be in place at the time of project approval, and the project must come from the conforming plan and TIP. On October 19, 2005, the National Capital Region Transportation Planning Board³² adopted its CLRP, and TIP, which included the design concept and scope of the selected ICC alternative. The Constrained Long Range Plan and TIP were found to conform by FHWA/Federal Transit Administration on February 21, 2006 for all applicable pollutants.

³¹ According to 40 CFR 94.101 of the Transportation Conformity Rule, a "Maintenance Area" is any geographic region of the United States previously designated nonattainment pursuant to the Clean Air Act Amendments of 1990 and subsequently redesignated to attainment subject to the requirement to develop a maintenance plan under section 175A of the Clean Air Act, as amended..

³² The National Capital Region Transportation Planning Board is the official metropolitan planning organization for the Washington, DC-MD-VA metropolitan area.

The project must also meet the requirements for the analysis of localized CO and PM2.5 hot-spots (40 CFR 93.116). The project-level CO hot-spot air quality analysis was performed for the ICC No-Action and Selected alternatives. The results of this analysis are included in the Final EIS, the Air Quality Technical Report and Addendum, and in the project files. The analysis demonstrated that CO impacts resulting from the Selected Alternative will not result in a violation of the NAAQS 1-hour CO concentration of 35.0-ppm or the 8-hour CO concentration of 9.0-ppm, at any air quality receptor location, in either analysis year 2010 or year 2030. Thus, the project will not cause or contribute to any new localized violations of the CO NAAQS nor will it increase the frequency or severity of any existing violations.

At the time the ICC Draft EIS was issued (November 22, 2004) the EPA had not designated nonattainment area for the PM2.5 NAAQS. The Washington, DC-MD-VA area was designated a nonattainment area for PM2.5 on January 5, 2005; with an effective date of April 5, 2005. The ICC Final EIS (issued January 3, 2006) disclosed the new nonattainment designation, and noted that transportation conformity requirements would apply for PM2.5 on April 5, 2006. See *Section IV.H.2* (Pages IV-306 to IV-307) of the Final EIS. In addition, the Final EIS explained that EPA had not yet issued its final rule or guidance on how the PM2.5 hot spot analyses should be performed.

EPA amended the Transportation Conformity rule on March 10, 2006, requiring a hotspot analysis as part of project level conformity in PM2.5 nonattainment areas for certain projects. A report entitled "Project-level Conformity Determination for the ICC Project in Maryland," appended to this ROD as *Attachment H*, addressed the new project-level transportation conformity requirements for the ICC, including a PM2.5 qualitative hotspot analysis. The report was made available to the public on March 24, 2006, and comments were accepted for 30 days,

until April 26, 2006. Responses to all comments received are included in the volume accompanying this ROD entitled “Record of Responses to Public Comments.” The report demonstrated that the ICC will not cause or contribute to any new localized violations of the PM2.5 NAAQS nor will it increase the frequency or severity of any existing violations. There is currently no applicable State air quality implementation plan for PM2.5, and thus there are no PM2.5 control measures in such plan for the project to comply with (40 CFR 93.117). Therefore, the project has met all of the requirements of 40 CFR 93 and is found to conform. No significant criteria pollutant air quality impacts are anticipated from the ICC.

B. Mobile Source Air Toxics

For a group of pollutants known as Mobile Source Air Toxics (MSAT), no NAAQS have been established either individually or collectively. Instead, EPA’s current rules regarding vehicle emissions and fuel formulations were issued to meet its duty under the Clean Air Act to regulate and reduce MSAT. There is no regional level analysis specified for MSAT.

A project-level MSAT analysis was performed for the ICC No-Action and the build alternatives. The results of this analysis are included in the Final EIS and Air Quality Technical Report and Addendum. The objective of the MSAT analysis is to estimate and compare the MSAT emissions associated with the project alternatives in order to understand the relative impact of those emissions. For the MSAT analysis, emissions were estimated for the six priority MSAT in the affected area of the Alternatives. The priority MSAT are: benzene, diesel particulate matter, acetaldehyde, acrolein and 1,3 butadiene.

For both the No-Action and build alternatives, MSAT emissions in the design year (2030) will decrease greatly from current conditions (year 2000). The amount of the decrease varies from 67 percent to 92.5 percent depending on MSAT and alternative considered. Slightly

higher MSAT emissions are predicted for the Selected Alternative as compared to the No-Action Alternative. Specifically, under the Selected Alternative in the design year (2030), the modeled results show four to six percent more MSAT emissions within the ICC Study Area than with the No-Action Alternative; primarily due to increased vehicle miles traveled for the Selected Alternative. This difference is negligible given the uncertainties associated with the analytical techniques and in light of the dramatic declines anticipated by 2030. The ICC Selected Alternative is predicted to generate approximately seven percent to eight percent of the MSAT within the ICC Study Area in 2030. There is no conformity determination performed for the MSAT because EPA has not established NAAQS for the MSAT. With this analysis, the FHWA complied with NEPA for MSAT. Responses to comments received about the MSAT analysis are included in the volume accompanying this ROD entitled “Record of Responses to Public Comments.”

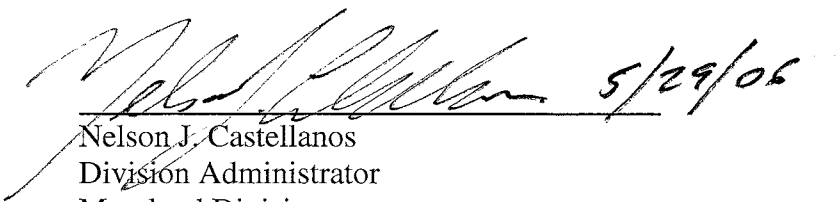
C. Air Quality Mitigation Measures

For ozone, CO, and fine particulate matter, no mitigation measures are required because the Selected Alternative does not cause or contribute to any violation of the NAAQS. For MSAT, no mitigation measures are required because of the anticipated decrease in emissions. Nonetheless, in light of the public concerns expressed about air pollution, the Lead Agencies will implement a Diesel Emissions Reduction Program to minimize air emissions during construction. This Program will be made part of the project performance specifications. Accordingly, the contractors will be required to create and submit a plan demonstrating means and methods for compliance with the strategies below and/or submit a similar program for review by the SHA. The control program will include the following:

- Diesel powered construction equipment will be required to meet minimum emissions reduction requirements by engine manufacturer, or by being properly retrofitted with emission control device or;
- Clean Fuels will be used if necessary to meet the emissions reduction requirements; and
- All pertinent State and Federal regulations relative to exhaust emission controls and safety will be complied with; and
- Retrofit equipment used must be on the EPA Verified Retrofit Technology List; and
- Delivery vehicles will not be permitted to idle during long periods of time for unloading construction material.

Fugitive dust (beyond project limits) will also be strictly prohibited. Control of dust is generally included in project special provisions, and the SHA standard specifications specify Dust and Moisture Dust Control in Section 501-03.12. The Project Request for Proposals will include detailed requirements and practices that will reduce or prevent the surface and air transport of dust during construction. Dust control measures for construction activities may include minimization of soil disturbance, applying mulch and establishing vegetation, water spraying, surface roughening, applying polymers, spray-on tackifiers, and barriers. The contractor will be required to maintain opacity limits of 20% on site and 15% at the right of way line; and shall have a Monitor, certified through an EPA approved capacity training and certification course. The above requirements will be enforced through the environmental oversight plan described on pages 17 to 19 of this ROD.

Approved:


Nelson J. Castellanos
Division Administrator
Maryland Division
Federal Highway Administration

**Attachment A -
Selected and Back-up
Environmental Stewardship Sites**

Attachment A: Selected Environmental Stewardship Activities

No.	Site Descriptor	ES Benefit	Description	Map ID #
Community and Cultural Sites				
1	16	14,500 linear feet	The ES Concept at Site 16 is to provide a Class I pedestrian/bicycle trail and paved shoulders along Old Gunpowder Road from MD 198 to Greencastle Road. This would benefit several of the surrounding residential neighborhoods and furthers the County's goal of providing a continuous trail from Bladensburg to Laurel as part of the Anacostia Trails Heritage Area Plan.	1
2	33	10,000 linear feet	The roadways around Lake Frank were once open to vehicle traffic. Asphalt roads and parking lots exist around the lake. These roads and parking lots would be removed (approximately 6.87 ac.) and replaced with an 8-10 foot wide asphalt trail. Turf and tree plantings would be added as a buffer.	2
3	2	1 building	The ES Concept at Site 2 is to provide improvements to the Woodlawn Barn. The Woodlawn Barn, selected for the Historic American Building Survey in the 1930s, is located in the Montgomery County Heritage Area. It has been recommended that the barn be rehabilitated as a visitor center to serve as a trailhead for the Rural Legacy Trail and a gateway to historic Sandy Spring.	3
4	47	N/A	The ES Concept at Site 47 is to provide wayfinding and signage throughout the ICC study area to identify and direct interest to historic sites, heritage areas, and scenic/rustic roads.	Not Shown on Map
5	S-1	2,000 linear feet	Sidewalks needed on south side of MD 115 from Applewood Lane to crosswalk at Olde Mill Run to connect to sidewalks already planned by SHA/DPWT that connect to school.	4
6	50	2,000 linear feet	Construct Class I pedestrian/bicycle path along Layhill Road near Park Vista Drive. There is currently a sharp curve with no sidewalks on this stretch of Layhill Road. Also a need to connect Longmead with Layhill Park.	5
7	52A	1 acre	One acre dog exercise area surrounded by secure fence in Olney Manor Recreation Park. Montgomery County Dog Owner Group (DOG) would maintain.	6

Attachment A: Selected Environmental Stewardship Activities

No.	Site Descriptor	ES Benefit	Description	Map ID #
Stream Restoration Sites				
8	PB-37	2,700 linear feet	PB-37 is located in the headwaters of the Upper Gum Springs between Good Hope Road and Fireside Drive. The ES concept for PB-37 includes stream restoration efforts (bank stabilization, floodplain creation, and habitat enhancement).	16
9	PB-108	2,400 linear feet	PB-108 is located in the Left Fork subwatershed of the Upper Paint Branch watershed. PB-108 is a tributary to the Left Fork from south of the Craddock Street and Kings House Road intersection. The concept for PB-108 includes stream restoration efforts (bank stabilization, floodplain creation, riparian buffer enhancement, fish blockage removal, and habitat enhancement).	14
10	NB-2C	4,900 linear feet	NB-2C is part of Williamsburg Run and is located approximately north of Gallagher Way, flowing west to Cashell Road in the Cashell Manor community. The concept for NB-2C includes stream restoration efforts (bank stabilization, floodplain creation, and riparian buffer enhancement).	2
11	NW-170	5,000 linear feet	This site includes the mainstem of Northwest Branch from the southern boundary of the Northwest Branch Golf Course downstream to Bonifant Road. A portion of Batchellors Run that joins Northwest Branch within the site would also be included. The concept for NW-170 includes the following stream restoration efforts: floodplain creation to provide energy dissipation of erosive flood flows, reduce erosive shear stresses, reduce channel incision, and increase infiltration and groundwater recharge; bank stabilization to provide energy dissipation of erosive flood flows, reduce erosive shear stresses, and reduce bank erosion and instream sedimentation; enhancing the riparian buffer; installation of woody debris and other types of instream cover and gravel channel material to enhance the benthic and fish habitats and communities.	5

Attachment A: Selected Environmental Stewardship Activities

No.	Site Descriptor	ES Benefit	Description	Map ID #
12	PB-12B	2,000 linear feet	This portion of PB-12B is located on Hollywood Branch and flows southeasterly from Cannon Drive to Laurie Drive. This reach has good potential to create floodplain. The concept for PB-12B includes stream restoration efforts (bank stabilization, floodplain creation, utility conflict resolution, and riparian buffer enhancement).	17
13	NB-1	2,800 linear feet	Site NB-1 is located entirely in Norbeck Meadows Park/North Branch Stream Valley Park in the Norbeck Estates community in Montgomery County. The reach is known as the Cherrywood Manor Tributary and flows east to west from approximately 300 feet downstream (west) of George Washington Drive to approximately 1,000 feet upstream of the confluence with North Branch Rock Creek, adjacent to Summertree Court. The concept for NB-1 includes stream restoration efforts (bank stabilization, floodplain creation, riparian buffer enhancement, and fish passage restoration at existing debris blockages).	3
14	PB-85	1,200 linear feet	Site PB-85 is a southerly flowing reach of the Paint Branch mainstem that begins downstream of the confluence with Little Paint Branch west of Autoville Drive. There is the possibility to enhance the riparian buffer along the golf course. The concept for PB-85 includes stream restoration efforts (bank stabilization, floodplain creation, utility conflict resolution, and riparian buffer enhancement).	26
15	RC-2	2,400 linear feet	RC-2 includes a headwaters tributary to Mill Creek flowing north to south between Mill Run Drive, under Founders Mill Drive, to the end of the west cul-de-sac of Founders Mill Drive and a portion of the mainstem Mill Creek flowing west to east between Shady Grove Road and Redland Road. The reaches are mostly within Mill Creek Stream Valley Park. The concept for RC-2 includes stream restoration efforts (bank stabilization, floodplain creation, riparian buffer enhancement, and habitat enhancement).	1

Attachment A: Selected Environmental Stewardship Activities

No.	Site Descriptor	ES Benefit	Description	Map ID #
16	NB-3	4,000 linear feet	NB-3 is made up of two reaches, one on the mainstem of Manor Run entirely within Flower Valley Park, and a tributary on private property in the Flower Valley community. The mainstem Manor Run portion of NB-3 flows east to west from south of Hornbeam Drive to the confluence with North Branch Rock Creek. The tributary flows southeast to northwest from Jasmine Drive to the mainstem of Manor Run. The concept for NB-3 includes stream restoration efforts (bank stabilization, floodplain creation, riparian buffer enhancement, and habitat enhancement).	4
17	NW-50	1,000 linear feet	NW-50 is the headwaters of Rolling Stone Tributary south of the intersection of Stonegate Drive and Watergate Road in the Stonegate community. The concept includes stream restoration efforts (bank stabilization, floodplain creation, riparian buffer enhancement, utility conflict resolution, and habitat enhancement).	7
18	PB-109	2,500 linear feet	PB-109 is a headwaters tributary to the Good Hope Tributary in the Upper Paint Branch watershed. The reach flows north to south from downstream of Windmill Lane and Peachwood Drive to Good Hope Road. The concept for PB-109 includes stream restoration efforts (bank stabilization, floodplain creation, riparian buffer enhancement, and habitat enhancement).	13
19	NW-4	3,800 linear feet	NW-4 is the channelized portion of lower Rolling Stone Tributary located mostly within Northwest Branch Park. The reach flows north to south from west of Cricket Lane to the confluence with Northwest Branch. The concept for NW-4 includes stream restoration efforts (bank stabilization, floodplain creation, riparian buffer enhancement, fish blockage removal, and habitat enhancement).	10
20	NW-51	300 linear feet	NW-51 is the headwaters of Rolling Stone Tributary south of the intersection of Stonegate Drive and Watergate Road in the Stonegate community. The concept includes stream restoration efforts (bank stabilization, floodplain creation, riparian buffer enhancement, utility conflict resolution, and habitat enhancement).	6

Attachment A: Selected Environmental Stewardship Activities

No.	Site Descriptor	ES Benefit	Description	Map ID #
21	IC-50 & IC-51	500 linear feet; 300 linear feet (respectively)	IC-50 and IC-51 are located on the mainstem of Indian Creek. IC-50 is a natural section of stream between artificial sections downstream of East Maple Avenue. IC-51 is the upstream portion of a concrete lined channel in the vicinity of the Odell Road crossing. The concept for IC-50 and IC-51 includes stream restoration efforts (concrete removal, bank stabilization, floodplain creation, fish blockage removal, riparian buffer enhancement, and habitat enhancement).	21 & 22
22	IC-57	600 linear feet	IC-57 is located on the Indian Creek mainstem at Old Baltimore Pike crossing, east of Maryland Avenue East, west of Somerset Avenue in the Indian Creek Village community. The concept for IC-57 includes stream restoration efforts (concrete removal, bank stabilization, floodplain creation, riparian buffer enhancement, fish blockage removal, and habitat enhancement).	24
23	IC-58	1,100 linear feet	IC-58 is located on the Indian Creek mainstem north of Old Baltimore Pike, east of Frederick Avenue, and west of Somerset Avenue. The concept for IC-58 includes stream restoration efforts (concrete removal, bank stabilization, floodplain creation, fish blockage removal, utility conflict resolution, and riparian buffer enhancement).	23
24	IC-43	1,000 linear feet	IC-43 is located along Indian Creek south and east of a box culvert under I-95 between the interchanges for MD 212 and MD 198. The concept for IC-43 includes stream restoration efforts (bank stabilization and floodplain creation).	18
25	IC-48	1,300 linear feet	IC-48 is located upstream (west) of US 1 and north of Highview Avenue in the Beltsville Heights community. The concept for IC-48 includes stream restoration efforts (concrete removal, bank stabilization, floodplain creation, fish blockage removal, and habitat enhancement).	19
26	IC-49	500 linear feet	IC-49 is located on the Indian Creek mainstem east of US 1 and north of Sycamore Road. The concept for IC-49 includes stream restoration efforts (bank stabilization, floodplain creation, and riparian buffer enhancement).	20

Attachment A: Selected Environmental Stewardship Activities

No.	Site Descriptor	ES Benefit	Description	Map ID #
27	IC-56	400 linear feet	IC-56 is a tributary to the Indian Creek mainstem east of Old Baltimore Pike, north of Talbot Avenue, and south of Maryland Avenue East. The concept for IC-56 includes stream restoration efforts (concrete removal, bank stabilization, floodplain creation, and riparian buffer enhancement).	25
28	NW-49	1,700 linear feet	NW-49 is the headwaters of Rolling Stone Tributary south of the intersection of Stonegate Drive and Watergate Road in the Stonegate community. The concept includes stream restoration efforts (bank stabilization, floodplain creation, riparian buffer enhancement, utility conflict resolution, and habitat enhancement).	8
29	NW-52	1,400 linear feet	NW-52 is a tributary to the Rolling Stone Tributary west of Notley Road, north of Cricket Lane, and south of Nova Court in the North Sherwood Forest community. The concept for NW-52 includes stream restoration efforts (bank stabilization and riparian buffer enhancement)	9
30	PR-61	600 linear feet	PR-61 is located in the Oursler Road Tributary subwatershed, a tributary to the Rocky Gorge Reservoir. The reach flows south to north from the end of Oursler Road to the Patuxent River/Rocky Gorge Reservoir in the Patuxent River Watershed Conservation Park. The concept for PR-61 includes stream restoration efforts (bank stabilization, floodplain creation, riparian buffer enhancement, and habitat enhancement).	15
31	NW-102	1,500 linear feet	NW-102 is located on Bel Pre Creek at the confluence with Northwest Branch, north of intersection of Randolph Road and Kemp Mill Road. The concept for NW-102 includes stream restoration efforts (bank stabilization, floodplain creation, and riparian buffer enhancement).	12
32	NW-113	2,800 linear feet	NW-113 is located upstream of NW-112 on Bel Pre Creek within Northwest Branch Park, north of Osterport Drive. The concept for NW-113 includes stream restoration efforts (bank stabilization, floodplain creation, fish blockage removal, and riparian buffer enhancement).	11

Attachment A: Selected Environmental Stewardship Activities

No.	Site Descriptor	ES Benefit	Description	Map ID #
Wetland Creation Sites				
33	RC-36	3 acres	RC-36 is located north of I-370 across from Crabbs Branch Way near Washington Grove. RC-36 is an inactive parcel adjacent to a forested wetland situated in the headwaters of Mill Creek. The concept for this site is to create forested wetlands by tying into the existing groundwater available in the adjacent forested wetland and possibly redirecting surface water from the existing stream.	1
34	LP-17	2 acres	LP-17 is located at the southwest corner of MD 198 (Sandy Spring Road) and Old Gunpowder Road within the headwaters of the Little Paint Branch. The concept for LP-17 includes creating forested wetlands and restoring the channelized stream that flows along the western property boundary. Of the total 6.5 acres, wetlands could be established on 3.5 acres of the site based on hydrologic and hydric soils indicators. 1.5 acres of this site will be used for mitigation for the I-95/Contee Road project and therefore, 2 acres will remain for this project.	2
Special Protection Area Best Management Practice Sites				
35	PB-113	63 acres	PB-113 is located within the Colesville Farms Estates development. The project concept is to address stormwater management on a micro-scale by constructing multiple areas to retain stormwater runoff based upon the contribution of runoff from each parcel rather than the end-of-pipe or cumulative runoff total.	1
36	PB-114 and PB-115	44.3 acres	PB-114 and PB-115 are located within the Peachwood development. Projects within the development consist of reconstructing existing grassy swales to provide bioretention areas. The concept also includes the construction of a bioretention area within Peachwood Park, at the end of Eastway Drive. The construction of a smaller bioretention area in Peachwood Park would be feasible with the implementation of micro-scale projects to treat the runoff upstream of the park.	2 & 3

Attachment A: Selected Environmental Stewardship Activities

No.	Site Descriptor	ES Benefit	Description	Map ID #
37	PB-116 and PB-117	100.3 acres	PB-116 and PB-117 are located within the Fairland Estates development. Stormwater runoff from Creekside Drive and Cedar Creek Lane is not controlled. The concept is to construct micro-scale projects such as bioretention areas along grassy swales and a possible bioretention area between Fairridge Drive and Bridgewater Drive.	4 & 5
38	PB-118	51.4 acres	PB-118 is located within the Countryside development. The concept is to construct a bioretention area between Nees Lane and the existing outfall and extending the treatment area into the park to accommodate the roughly 106,000 ft of volume to treat the first flush.	6
39	PB-119	19.6 acres	PB-119 is located in the Fairland Farms development. Only the uncontrolled drainage area would be treated under this concept. The uncontrolled portion would be treated with existing grassy swales. There may also be an opportunity to utilize an existing planted area within the Culp Court cul-de-sac as a bioretention area.	7
40	PB-120 and PB-121	14.4 acres	PB-120 and PB-121 are located within the Fairland Acres development. The best opportunity for BMP treatment may be an under-street/bioretention storage combination at the end of Fairland Acres Road and Apple Tree Lane.	8 & 9
41	PB-122 and PB-123	64.7 acres	PB-122 and PB-123 are located within the Peach Orchard Heights development. The concepts for PB-122 and PB-123 consist of reconstructing existing grassy swales to provide bioretention areas.	10 & 11
42	PB-124 and PB-125	57.6 acres	PB-124 and PB-125 are located within the Gum Springs Farm development. The concepts for PB-124 and PB-125 consist of reconstructing existing grassy swales to provide bioretention areas.	12 & 13
43	PB-126 and PB-127	16.6 acres	PB-126 and PB-127 are located within the Sequoia development. The concepts for PB-126 and PB-127 consist of reconstructing existing grassy swales to provide bioretention areas. There may be an opportunity to construct a bioretention area just north of Harold Road.	14 & 15
44	PB-128 and PB-129	21.6 acres	PB-128 and PB-129 are located within the Maydale development. The concepts for PB-128 and PB-129 consist of reconstructing existing grassy swales to provide bioretention areas.	16 & 17

Attachment A: Selected Environmental Stewardship Activities

No.	Site Descriptor	ES Benefit	Description	Map ID #
45	PB-130	74 acres	PB-130 is located within the Good Hope Estates development. The project concept would be to construct an inline bioretention area below the existing outlet structure.	18
46	PB-131 and PB-132	12 acres	PB-131 and PB-132 are located within the Colesville Heights development. The concepts for PB-131 and PB-132 consist of reconstructing existing grassy swales to provide bioretention areas.	19 & 20
47	PB-133	80.1 acres	PB-133 is located within the Perrywood Estates development. The concept for PB-133 consists of reconstructing existing grassy swales to provide bioretention areas.	21
Stormwater Management Retrofit Sites				
48	IC-84	330 acres	Currently, agricultural runoff from the USDA-BARC East Farm, located at Powder Mill Road (MD 212) and Edmonston Road (MD 201), flows toward Indian Creek. Several small BMPs are proposed such as biofiltration areas and SWM wetlands to improve water quality.	15
49	NB-16	192 acres	An existing dry pond exists on the Cherrywood tributary to North Branch Rock Creek that would be retrofitted to provide 1-year extended detention. The pond also has several wetland areas currently existing; potential expansion of these wetlands for additional water quality benefits is proposed.	6
50	NB-6	234 acres	Existing dry pond at the north end of Hines Road and south of MacDuff Avenue. Recommendations: Convert the existing dry pond to provide extended detention with micropool.	5
51	NB-7	274 acres	Dry pond east of Cashell Road. Recommendations: Convert the existing dry pond to extended detention with micropool.	4
52	NW-29	768 acres	Dry on-line pond on Bel Pre Creek in poor condition east of Aquarius Avenue. Recommendations: Replace embankment (new pond), create a large wet pond with extended detention and wetland. A good opportunity for a regional pond.	9

Attachment A: Selected Environmental Stewardship Activities

No.	Site Descriptor	ES Benefit	Description	Map ID #
53	IC-27	1,200 acres	County-owned regional quantitative stormwater management facility located south of Virginia Manor Road and east of Trolley Lane. Recommendations: Retrofit facility to provide 24-hour extended detention of the 1-year storm frequency.	14
54	NB-11	56 acres	Existing wet pond on M-NCPPC property west of Custis Drive and north of Pennforest Way. Recommendations: Landscape existing wet pond and repair rip-rap apron.	3
255	NW-32	16 acres	Wet Pond in Longmead Community, east of Travert Way and west of Carriage Square Drive, with wetland fringe. Recommendations: Lower the existing water surface in this wet pond to provide flow attenuation for frequent storms. The flow attenuation will help to reduce erosive velocities in the receiving stream.	11
56	NW-35	31 acres	Existing conditions: Dry pond in golf course within Naples Manor Community, west of Jaystone Drive and Cutstone Way intersection, that provides 2-year control. Recommendations: Provide opportunity for wetland establishment and possibly extended detention to limit downstream velocities.	13
57	NW-47	28 acres	Existing conditions: Dry pond located north of Old Baltimore Road that provides 2-year control. Recommendations: Reconfigure outfall from existing pond by adding a reverse slope pipe to reduce clogging and temperature concerns, and add a micropool and wetland, to the extent possible.	7
58	PR-257	493 acres	Existing pond north of Treadway Road in Reddy Branch Park. Recommendations: Retrofit existing facility to reduce peak discharges of the very frequent events (6-month). Link with downstream stream restoration (PR-253).	16
59	NW-39	26 acres	Dry pond located east of Long Green Drive that provides 2-year control. Recommendations: Reconfigure existing dry pond to include wetlands and extended detention to the extent possible to reduce downstream velocities.	12
60	RC-74	79 acres	Dry pond on M-NCPPC property at end of Buena Vista Drive in Crabbs Branch Park. Recommendations: Convert dry pond to extended detention marsh.	2

Attachment A: Selected Environmental Stewardship Activities

No.	Site Descriptor	ES Benefit	Description	Map ID #
61	NW-40	55 acres	Wet pond located north of London Bridge Drive, south of Shamrock Ridge Road and west of Wimbledon Drive that currently provides 2-year control. Recommendations: Reconfigure the existing pond to include wetlands and extended detention by expanding the pond horizontally, and include tree plantings along the edges.	10
62	RC-26	538 acres	A facility located upstream from Epsilon Drive is designed as a dry pond to provide 2-year quantity control (drainage area is 614 acres). Recommendations: Retrofit the existing pond to attenuate small storm flows as well as improve water quality control capabilities to the extent possible.	1
63	NW-133	30 acres	A small tributary carrying drainage from Old Cambridge Road at the east end of Covered Wagon Way that exhibits fair stability downstream location, but upstream exhibits erosion/degradation. Recommendations: Attenuate flows to extent possible through construction of a BMP/ dry swale adjacent to cul-de-sac.	8

Attachment A: Back-up Environmental Stewardship Activities

No.	Site Descriptor	ES Benefit	Description	Map ID #
Back-Up Community and Cultural Sites				
1	52	1 acre	One acre dog exercise area surrounded by secure fence in East Norbeck Park of Northwest Branch Recreational Park. Montgomery County Dog Owner Group (DOG) would maintain.	Not Shown on Map
Back-Up Stream Restoration Sites				
2	PB-93	8,000 linear feet	PB-93 is located downstream of US 1 College Park. The concept includes stream restoration efforts (reconnecting the stream to a floodplain, reducing bank erosion and instream sedimentation, enhancing the riparian buffer, enhancing the habitat conditions and the benthic and fish communities).	Not Shown on Map
3	NW-9	4,100 linear feet	NW-9 is on Bel Pre Creek, a tributary to Northwest Branch. The reach flows north to south between Bel Pre Road and the southern end of North Gate Drive at Bel Pre Park in the Layhill Village community. The concept includes stream restoration efforts (reconnecting the stream to a floodplain, creating a natural channel, reducing bank erosion and instream sedimentation, enhancing the riparian buffer, opening passage to fish, enhancing the habitat conditions and the benthic and fish communities).	Not Shown on Map
4	LP-27	2,600 linear feet	LP-27 is on the mainstem of Little Paint Branch and flows north to south from upstream of Chase Terrace, through the I-95/Powder Mill Road interchange, and to the confluence with Galway Tributary. The concept includes stream restoration efforts (reconnecting the stream to a floodplain, creating a natural channel, reducing bank erosion and instream sedimentation, enhancing the riparian buffer, opening passage to fish, enhancing the habitat conditions and the benthic and fish communities).	Not Shown on Map
5	RC-1	5,400 linear feet	RC-1 includes two headwater streams in the Mill Creek subwatershed and is located entirely within Mill Creek Stream Valley Park in the Mineral Springs community. The concept includes stream restoration efforts (reconnecting the stream to a floodplain, reducing bank erosion and instream sedimentation, enhancing the riparian buffer, enhancing the habitat conditions and the benthic and fish communities).	Not Shown on Map

Attachment A: Back-up Environmental Stewardship Activities

No.	Site Descriptor	ES Benefit	Description	Map ID #
6	RC-129	4,400 linear feet	RC-129 is made up of two reaches. The first reach is the mainstem of Mill Creek from south of Midcounty Highway to the confluence with the right side tributary. The second reach is the right side tributary that flows west to east from approximately Amity Drive to the confluence with the mainstem Mill Creek. The concept includes stream restoration efforts (reconnecting the stream to a floodplain, reducing bank erosion and instream sedimentation, enhancing the riparian buffer, enhancing the habitat conditions and the benthic and fish communities).	Not Shown on Map
7	NW-102	1,500 linear feet	NW-102 is located on Bel Pre Creek at the confluence with Northwest Branch, north of intersection of Randolph Road and Kemp Mill Road. The concept includes stream restoration efforts (bank stabilization, floodplain creation, and riparian buffer enhancement).	Not Shown on Map
8	LP-36	900 linear feet	LP-36 is a reach of the Little Paint Branch mainstem just south of Briggs Chaney Road, east of Masters Lane, and west of Clonnie Place within Little Paint Branch Stream Valley Park. The concept includes stream restoration efforts (reconnecting the stream to a floodplain, reducing bank erosion and instream sedimentation, enhancing the riparian buffer, enhancing the habitat conditions and the benthic and fish communities).	Not Shown on Map
9	NW-112	1,800 linear feet	NW-112 is located upstream of NW-102 on Bel Pre Creek, north of the intersection of Randolph Road and Kemp Mill Road. The concept includes stream restoration efforts (reconnecting the stream to a floodplain, reducing bank erosion and instream sedimentation, enhancing the riparian buffer, enhancing the habitat conditions and the benthic and fish communities).	Not Shown on Map
10	PR-253	4,100 linear feet	PR-253 is located in the Lower Olney Mill subwatershed, in the Olney Mill Subdivision (north of Treadway Road). PR-253 is bordered by one private and three public properties. The concept includes stream restoration efforts (reconnecting the stream to a floodplain, reducing bank erosion and instream sedimentation, enhancing the riparian buffer, enhancing the habitat conditions and the benthic and fish communities).	Not Shown on Map

Attachment A: Back-up Environmental Stewardship Activities

No.	Site Descriptor	ES Benefit	Description	Map ID #
11	PB 79	2,400 linear feet	PB-79 site is on the Paint Branch mainstem downstream of Metzertott Road. The concept includes stream restoration efforts (reconnecting the stream to a floodplain, reducing bank erosion and instream sedimentation, enhancing the riparian buffer, enhancing the habitat conditions and the benthic and fish communities).	Not Shown on Map
12	PB-89	300 linear feet	Site PB-89 is a southerly flowing reach of the Paint Branch mainstem that is located between University Boulevard and Metzertott Road. This section of stream is west from the intersection of Baltimore Avenue and Branchville Road. The concept includes stream restoration efforts (reconnecting the stream to a floodplain, reducing bank erosion and instream sedimentation, enhancing the riparian buffer, enhancing the habitat conditions and the benthic and fish communities).	Not Shown on Map
Back-Up Wetland Creation Sites				
13	PB-112	4 acres	PB-112 is located on the north side of Briggs Chaney Road, east of Cloverly Park in the headwaters of Paint Branch. Site PB-112 is a fallow parcel that has a forested wetland swath that bisects the site.	Not Shown on Map
14	RC-59	4 acres	RC-59 is located on the north side of Fieldcrest Road, just west of Olney-Laytonsville Road. This site is a maintained field located within the headwaters of a tributary to Rock Creek.	Not Shown on Map
15	RC-40	6 acres	RC-40 is located on the north side of Muncaster Road inside the Agricultural History Farm Park. This site is a fallow field situated within the floodplain of Rock Creek that is being used for wildlife and education purposes.	Not Shown on Map
Back-Up SWM/Retrofit Sites				
16	RC-73	106 acres	Indian Hills Drive	Not Shown on Map
17	RC-75	127 acres	Swan Stream at Laytonia Drive	Not Shown on Map
18	RC-76	16 acres	Calabar Court	Not Shown on Map
19	RC-77	85 acres	Briardale Road	Not Shown on Map
20	PR-258	80 acres	Olney Estates	Not Shown on Map
21	NW-38	26 acres	Tarpon Terrace/Amberleigh Drive	Not Shown on Map
22	NW-63	20 acres	West of Layhill at Ednor Road	Not Shown on Map

Attachment A: Back-up Environmental Stewardship Activities

No.	Site Descriptor	ES Benefit	Description	Map ID #
23	NW-71	12 acres	South of Norbeck Road	Not Shown on Map
24	NW-82	120 acres	North of Park Vista Drive	Not Shown on Map
25	NW-114	20 acres	Hathaway W of Layhill	Not Shown on Map
26	NW-130	30 acres	Batchellors Forest Road	Not Shown on Map
27	PR-259	28 acres	Loganberry Court	Not Shown on Map
28	RC-130A	100 acres	Lake Needwood	Not Shown on Map
29	RC-81	43 acres	Bel Pre at Connecticut	Not Shown on Map
30	RC-82	431 acres	Gates of Heaven Cemetery	Not Shown on Map
31	LP-26	60 acres	Calvert Hills Drive	Not Shown on Map
32	NB-10	154 acres	Gooseneck Terrace	Not Shown on Map
33	IC-24	50 acres	I-95 at Indian Creek	Not Shown on Map
Back-Up Fish Passage Sites				
34	LP-25	N/A	LPB at Briggs Chaney Road	Not Shown on Map
35	LP-25A	N/A	LPB 200' D/S of Briggs Chaney Road	Not Shown on Map

**Attachment B -
Agency Comments and Responses**

ATTACHMENT B

PI-FC-A-2



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240



FEB 24 2006

ER 04/911

Mr. Nelson J. Castellanos
Division Administrator
Maryland Division
Federal Highway Administration
City Crescent Building
10 South Howard St.
Baltimore, MD 21201

Subject: **Intercounty Connector Final Environmental Impact Statement
and Section 4(f) Evaluation**

Dear Mr. Castellanos:

The Department of the Interior (Department) has reviewed the Intercounty Connector (ICC) Final Environmental Impact Statement and Section 4(f) Evaluation and offers the following comments. This letter is submitted in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C., 661 *et seq.*), the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 *et seq.*), and the National Transportation Act of 1966, as amended (49 U.S.C. 303 *et seq.*).

The Maryland State Highway Administration (SHA) and the Maryland Transportation Authority (MTA), in collaboration with the Federal Highway Administration (FHWA) published the Final Environmental Impact Statement/Final Section 4(f) Evaluation (FEIS) for the ICC on January 6, 2006. These three Lead Agencies directed the study which evaluated two "Build" alternatives listed as Corridor 1 and Corridor 2 and a "No Build" alternative. The Lead Agencies selected Corridor 1 with Rock Creek Option C and Northwest Branch Option A as the preferred alternative in the FEIS. This 18-mile alternative extends from I-370/I-270 near the Shady Grove metro station and travels east across I-95 before terminating at U.S. 1 approximately one mile south of Laurel, Maryland. The Corridor 1 Alternative generally follows the "Master Plan" alignment that was recommended by the Montgomery County Planning Board and approved by the Montgomery County Council in 1972.

This project was undertaken under the guidance of Executive Order 13274, which was signed by President George W. Bush in September 2002. This Executive Order directs the involved federal agencies to work together to streamline the

environmental review of priority transportation projects while minimizing the impacts to the environment. The Department, represented by the U.S. Fish and Wildlife Service and the National Park Service, was pleased to participate in this streamlining process and is pleased with the commitments listed in the FEIS.

The Section 4(f) Evaluation contains a detailed identification of Section 4(f) resources, and a thorough analysis of the impacts of each corridor alignment on the resources of concern. Corridor 1 has the greatest impact on parklands, and Corridor 2 has the greatest impact on historic resources. After reviewing the Draft Section 4(f) Evaluation, the Department commented that Corridor 2 caused the least harm to Section 4(f) resources; however, if the Lead Agencies selected Corridor 1 as the Preferred Alternative, a substantial mitigation package would need to be included to mitigate the impacts to the parkland resources along Corridor 1. Mitigation for historic resources would not be needed since Corridor 1 does not affect any historic resources.

The Section 4(f) Evaluation includes replacement parkland that far exceeds that acreage which would be affected by the construction of Corridor 1. Affected recreation facilities will be replaced at locations less prone to flooding and wet conditions. At all of the major stream crossings, bridges with elevated road sections will provide room underneath for pedestrian and wildlife connections between park areas located on the north and south of Corridor 1. In addition, the Corridor 1 alignment minimizes impacts to mature forests, wetlands, floodplains, and other natural features within the park areas, especially in the selection of Rock Creek Option C, and Northwest Branch Option A. The mitigation package provides replacement parkland that closely replicates the parkland that will be impacted in terms of providing Forest Interior Dwelling Species (FIDS) habitat, mature forest adjacent to stream valleys and contiguous to public parklands, wetlands, floodplains, and plant and wildlife habitat.

The Maryland-National Capital Park and Planning Commission (MNCPPC) in Montgomery County is the local agency which has jurisdiction over all of the parkland that would be affected along Corridor 1. MNCPPC has indicated its preference for Corridor 1, including the Rock Creek Option C and the Northwest Branch Option B segments. In addition, MNCPPC has determined that the parkland mitigation package, as described in the FEIS, sufficiently mitigates the impacts to parkland along Corridor 1.

Approximately 80 acres of Section 4(f) use would occur at seven parks along Corridor 1: Mill Creek Stream Valley Park, Rock Creek Regional Park; North Branch Stream Valley Park, Layhill Local Park; Northwest Branch Recreational Park; Northwest Branch Stream Valley Park – Unit 5; and Upper Paint Branch Stream Valley Park. The mitigation package includes the Dungan, Llewellyn, Peach Orchard Allnut, Southern Asia Adventist, and McNeil properties. These properties total 209

acres within the project study area and include natural systems and resources similar to those found in the seven parks that will be affected by the Corridor 1 alignment. The mitigation package for Corridor 1 will also include the Casey Property which offers 459 acres of parkland adjacent to several other parks. The Casey Property is located beyond the study area, but within Montgomery County, and contains natural features similar to those in the parklands along the Corridor 1 alignment. These features include habitat for FIDS of birds, wetlands, floodplains, streams, and forests. The Lead Agencies have indicated that the Casey Property will be conveyed to MNCPPC with an easement that requires preservation of the mature forest habitat in perpetuity.

In addition to the parkland mitigation package accepted by MNCPPC, two properties known as the Santini Road Properties will be donated to the Washington Suburban Sanitary Commission for watershed conservation in the Rocky Gorge watershed. These properties total 49.2 acres and contain FIDS habitat.

The mitigation package generously replaces the parkland facilities, resources, and habitats that will be affected by construction of the ICC along Corridor 1. The Department therefore advises the FHWA that in our view, the requirements under Section 4(f) have been satisfied by the avoidance, minimization, and mitigation that is specified in the FEIS for the Corridor 1 Preferred Alternative alignment, including the Rock Creek Option C and Northwest Branch Option A.

The Department is especially satisfied with the Lead Agencies' proposals to include long bridges crossing the floodplains of major streams; to mitigate the loss FIDS habitat; to provide enhanced stormwater management; to minimize the use of parkland; provide replacement parkland; and to provide environmentally beneficial mitigation and stewardship projects.

During the review of the ICC Draft Environmental Impact Statement, the Department had recommended the selection of Corridor 2 for the ICC alignment because it would have impacted fewer high value wetlands, floodplains, streams, and parklands. We have reviewed the FEIS and evaluated the Lead Agencies' rationale for selecting the Corridor 1 alignment. We also have assessed the avoidance and minimization measures employed on Corridor 1 to reduce impacts to natural resources and evaluated the mitigation proposals for replacing FIDS and wetland habitats and for restoring streams.

Based on the measures and mitigations proposed by the Lead Agencies, the Department finds Corridor 1 with Rock Creek Option C and Northwest Branch Option A to be environmentally acceptable. However, the Department would like to take this opportunity to discuss the various avoidance, minimization, and mitigation measures to be employed by the Lead Agencies and suggest possible modifications to these environmental measures that could further enhance the environmental benefits of

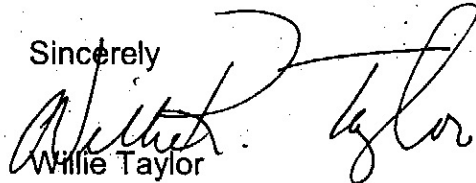
Corridor 1. The Department's suggestions are provided in an attachment to this letter for your consideration.

4

The Department has a continuing interest in working with the FHWA, MTA, and SHA to ensure impacts to resources of concern to the Department are adequately addressed. For continued consultation and coordination with the issues concerning Section 4(f) resources, please contact Mr. John G. Parsons, Associate Regional Director for Lands, Resources, and Planning, National Park Service, National Capital Regional Office, 1100 Ohio Drive SW, Washington, D.C, 20242. Mr. Parsons can be reached by telephone at (202) 619-7025. For matters related to rare, threatened and endangered species and other fish and wildlife resources, please contact Mr. John Wolflin, Supervisor, Chesapeake Bay Field Office, U.S. Fish and Wildlife Service, 177 Admiral Cochrane Drive, Annapolis, Maryland 21401. Mr. Wolflin can be reached by telephone at (410) 573-4574.

The Department appreciates the opportunity to provide these comments.

Sincerely



Willie Taylor

Director, Office of Environmental
Policy and Compliance

Attachment

cc w/attachment:
Mr. Neil Pedersen
Administrator
Maryland State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

4

ATTACHMENT

Avoidance Options Selected by the Lead Agencies

The Lead Agencies selected two highway options, Rock Creek Option C and Northwest Branch Option A, which avoid high value natural resources. Rock Creek Option C curves north through two residential developments and uses an existing highway right-of-way before crossing Rock Creek Regional Park at its narrowest location. This option was selected to avoid impacts to 25.3 acres of parkland forest. It also avoids 4.0 acres of floodplains, 37.6 acres of FIDS habitat and two large forested floodplain wetlands labeled 1L/IM and 1NA.

Northwest Branch Option A was designed to avoid the construction of a major highway parallel to a large stream system. The watershed is nearly 43 square miles in area and is the largest watershed in Montgomery County that contributes to the Anacostia River. It is the largest stream crossed by the Intercounty Connector. Option B would have paralleled the Northwest Branch stream channel for 5,400 linear feet and would require the relocation of 1,436 linear feet of this stream. Option B would increase the impacts to forested floodplain by 6.0 acres. Option B also would bisect two of the highest value forested wetlands (wetlands 2X and 2DD) that could have been impacted by the Intercounty Connector. Option A only crosses a small corner of each wetland. Option A would impact an additional 7.6 acres of upland forests within Northwest Branch Stream Valley Park and impacts an additional 7.8 acres of FIDS habitat.

However, the additional impacts of Option A to FIDS habitat and upland forests is less harmful than the increased impacts to stream channels, floodplains, and wetlands that would result from construction of Option B.

5

Forest Interior Dwelling Species (FIDS) of Birds

The Department's single biggest concern with Corridor 1 was its potential to fragment several large contiguous stands of interior forest that are located in parks in the study area. We believed that this habitat was irreplaceable in Montgomery County. Fortunately, the Lead Agencies found the 459 acre Casey Property at Hoyles Mills as replacement for FIDS habitat. This property would preserve 214 acres of FIDS habitat and 340 acres of forest that will be added to the MNCPPC park system. This property is enclosed by parkland on three sides. We recommend that the agricultural fields be planted with the dominant trees on the property which would include native oaks (*Quercus sp.*), hickories (*Carya sp.*) and tulip popular (*Liriodendron tulipifera*). We understand that SHA intends to acquire an easement on the property before transferring it to MNCPPC which requires the property to be retained as forest in perpetuity. This easement would ensure that the agricultural land will not be transformed into a developed recreation area. The Department believes this property is an exceptional replacement property for the FIDS habitat that will be impacted.

6

Long Bridges over Major Floodplains and Streams

The Lead Agencies have committed to provide long bridges over the major floodplains at nine stream locations. This is a crucial improvement over the last study of the Intercounty Connector in 1997 and demonstrates to all the environmental resource agencies the extraordinary commitment that the Lead Agencies have made to make this an environmentally acceptable alternative. The long bridges preserve most of the functions of the highest value wetlands, streams, and floodplains that will be impacted by Corridor 1. However, vegetation will not grow beneath the bridge decking if the bridges are not high enough or if the west bound and east bound bridges are not adequately separated to allow sunlight and rain to diagonally reach the ground beneath the bridge decking. Without vegetation, the bridges will become partial barriers to small mammals such as mice and voles which do not readily traverse open areas. In addition, without plants, no habitat will be available for wildlife. The stream banks will start to erode when the tree roots decompose and nothing is left holding the banks. This will require the armoring of the stream banks with rip-rap. The area under the bridges will evolve into dark, dry, and barren landscapes with armored stream channels. The benefits of such long bridges will become significantly compromised from the intent to mitigate impacts of floodplain crossings. We believe that a few modifications to the bridge heights and spacing will alleviate our concerns.

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The westbound and eastbound lanes of the ICC will be placed on separate bridges that are 60-feet wide. The bridge superstructure and decking is a minimum five feet in height. The U.S. Fish & Wildlife Service believes that an opening of between 20 and 30 feet between the bridges would allow more light and precipitation to hit the ground thus enhancing the perpetuation of a partially robust vegetative community under the inside edges of each bridge. However, the Department recognizes and supports the consensus of the Lead Agencies that the narrower 12-foot space between bridges is adequate to minimize impacts to parks and wildlife.

If the spacing between bridges is increased, the width of road fill on each end of the bridges also will need to increase to accommodate the wider opening between bridges. The road median can begin to be widened before the bridges and reduced as the road moves away from the bridges. This will limit the quantity of additional fill needed as the median width will be reduced as the highway moves away from the ends of the bridges.

The Department would like to take this opportunity to discuss specific bridges.

1. The Northwest Branch bridges at Station 533 should have a clearance of approximately 30 feet between the bottom of the superstructure and the surface of the floodplain.

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| 2. The Northwest Branch bridges at Station 561 should have a clearance of approximately 38 feet between the bottom of the superstructure and the surface of the floodplain. | 9 |
| 3. The Northwest Branch bridges at Station 593 should have a clearance of approximately 39 feet between the bottom of the superstructure and the surface of the floodplain. | 10 |
| 4. The Gum Spring and Paint Branch bridges should have a clearance of approximately 30 feet between the bottom of the superstructure and the surface of the floodplain. | 11 |
| 5. The Little Paint Branch bridges should have a clearance of approximately 30 feet between the bottom of the superstructure and the surface of the floodplain. The Department is concerned that the proposed bridge with an average of 16-feet of clearance will shade and could eventually kill the vegetation under it. This will cause the banks of the Little Paint Branch to erode. This stream is presently carrying an excessive sediment load which will only accelerate bank erosion and the lateral movement of the stream channel across the floodplain if the vegetation dies and the roots decompose. | 12 |
| 6. There is little or no environmental benefit to bridging wetland 8D. This moderate to low value wetland will be bordered on the south, east, and west by highway ramps. To the north is the existing I-95 box culvert. A stormwater management pond will be located adjacent to and west of wetland 8-D. A 200-foot long culvert will be placed in Indian Creek, just downstream of this wetland, to allow for the construction of Ramps NBCD and P-AA. Indian Creek is presently filled with sediment from the gravel mine just upstream and offers poor quality habitat to fish and aquatic insects. We do not believe that the quality of this stream segment will improve significantly following ramp construction on bridges. It would be more environmentally beneficial to mitigate for the wetland than to try to minimize impacts through bridging. | 13 |
| 7. All trees under the foot print of the floodplain bridges should be cut down and the stump and roots left in place to hold the stream banks and floodplain soils. The tree stumps should only be removed in the area of the pier foundations or in areas needing scour protection. | 14 |

Fencing

The Department and Lead Agencies are concerned that mammals, reptiles, and amphibians populations inhabiting the regional and stream valley parks will be run over on the newly constructed ICC. The parks contain the largest and most diverse populations of terrestrial wildlife in the immediate urban area. The Department suggests the use of eight-foot high fencing along the highway right-of-way at road segments adjacent to regional or stream valley parks to prevent deer from accessing the highway. The bottom of the fence should be attached to the ground or buried six-inches in the ground to prevent deer from crawling under

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it. A three-foot high fence should be buried 6-inches in the ground and attached to the deer fence to prevent small mammals, reptiles and amphibians from accessing the highway.

The Department believes the fencing can be limited to the large parks with the biggest wildlife populations. Fences should be erected along each of the following parks: Mill Creek Stream Valley Park, Rock Creek Regional Park, North Branch Stream Valley Park, Northwest Branch Recreational Park, Northwest Branch Stream Valley Park, Upper Paint Branch Stream Valley Park, and Little Paint Branch Stream Valley Park. A deer passage culvert is proposed for a gas line right-of-way. The ICC right-of-way should be fenced for 500-feet on both the east and west sides of the north and south facing culvert openings. This fencing will assist in directing deer to the culvert.

The Department and MNCPPC deer expert, Rob Gibbs, have agreed that the minimum structure size for a wildlife corridor for deer would be 12-foot by 12-foot. The FEIS partially quoted the memorandum, dated December 19, 2003, from Rob Gibbs, who is the Chairman of the Montgomery County Deer Management Work Group. On page IV-275, the FEIS referenced the memorandum and stated the Work Group recommended, "Culverts, when used in place of a bridge, should have a minimum height of eight feet with sufficient openness to allow animal passage." The memorandum actually stated, "Where bridges are not feasible, culverts should be as large as possible with a minimum height of 8 feet and an openness ratio of at least 1.0 when the following formula is applied-Width of opening x height of opening/length of culvert. Since the average culvert length for the highway will be 280 feet, an eight-foot high culvert would have to be 35-foot wide. A ten-foot high culvert would need to be 28-feet wide and a 12-foot culvert would need to be 23-foot wide. The Department believes the 12-foot by 12-foot culvert to be a reasonable compromise.

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Small Mammal Passage

The Lead Agencies are concerned about small mammal populations that will be bisected by the highway. They propose to provide small mammal culverts at five locations along Corridor 1. We do not believe however, that these culverts are needed at four of the five locations. The floodplain bridges bisecting the parks will provide most of the necessary corridors for small mammals.

We do not believe a significant percentage of mice (*Peromyscus sp.*) and voles (*Microtus sp.*) will cross a 260-foot to 280-foot long culvert along a bare shelf. Other small mammals such as gray squirrels (*Sciurus carolinensis*), red foxes (*Vulpes fulva*), opossums (*Didelphis marsupialis*), and striped skunks (*Mephitis mephitis*) will use the bridges or deer culverts for crossing under the highway. Besides, all the proposed small mammal passage culverts are located in areas that are developed or soon to be developed. Retail, office, or light industrial development will occur to the north, south, and west of the I-370 interchange. A

forested stream valley will remain east of the highway ramps. It is not necessary to have a small mammal passage between a protected natural area and three areas that will be developed.

A small mammal passage is proposed for Station 285. This passage would provide a corridor between Cashell Farm and North Branch Stream Valley Park. Once Cashell Farm is developed into residential housing, this corridor will not be necessary.

At Station 360, a residential development listed as Sycamore Acres is located south of the proposed highway corridor. Once the highway is built, there will only be a small amount of wooded habitat left south of the highway except for the scattered trees, shrubs, and lawn in the backyards of the homes at Sycamore Acres. To the north, a forest and meadow area of approximately 40 acres in size will be preserved between the Brooke Manor residential area and the highway. The Department does not believe a corridor would be necessary between the Brooke Manor open space and the Sycamore Acres development. The 40 acre forest/meadow complex will be able to support a sizeable population of small mammals.

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There will be two small areas of habitat left at Station 654 after the highway is constructed. Small mammal passage in this area will only provide a corridor between the Colesville and Colesville Manor residential areas. This small mammal culvert is not needed because there will be no habitat left after the highway is constructed.

Station 974 may be the only good location for a small mammal passage. Small mammals can pass between wetland 6j and the stream valley to the south. However, this area will be re-developed into office, light industrial, or dense residential housing. It is presently an area of fields, woods, and low density housing. The Department believes that future development will limit the usefulness of this passage and recommends that it be dropped from further consideration.

The Service is not opposed to any of the small mammal passages. We believe that these corridors provide little to no benefit at four of the five proposed locations. We also believe the benefits of the fifth location will be limited to the pre-development status of the properties. Once the area is developed, this passage will not benefit small mammals to any significant degree. The bridges provide the best corridors for all the terrestrial wildlife common to the selected alignment.

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Mitigation for Vernal Pools

The Lead Agencies propose to create vernal pools at the wetland mitigation sites. This does not mitigate for vernal pool loss in the impacted parklands. The

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existing populations of park amphibians need a replacement pool where they can reproduce. The Department recommends that the vernal pools be replaced near the impacts and in coordination with the MNCPPC. After the ponds are not needed for sediment and erosion control, these facilities can be graded into vernal pools. Vernal pool replacement in the parks should occur where the existing populations are located.

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Stormwater Management Facilities

The Department believes the Lead Agencies' commitments to water quality are exceptional. These commitments exceed the requirements of the Maryland Department of the Environment. These include the water quality treatment parameters that are listed on Page IV-179 of the FEIS:

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1. Water quality treatment of the first 1.5 inches of rainfall. The Maryland Department of the Environment only requires treatment of the first 1.0 inch of rainfall.
2. The Lead Agencies propose to treat both the road and bridge deck runoff at the North Branch of Rock Creek, the Good Hope, and Gum Springs tributaries, and the main stem of the Paint Branch.
3. Use of linear stormwater management system in the North Branch of Rock Creek and Paint Branch watersheds to filter and infiltrate stormwater. This system will cool the water and allow it to infiltrate into the groundwater in order to maintain the base flow of the streams during the summer. This stormwater management system will be superior to the conventional stormwater management pond system for maintaining the water quality of Use III and Use IV watersheds.

These advanced stormwater management facilities will negate the majority of water quality and erosive impacts associated with the acres of impervious surfaces that the highway will add to the watersheds. It is the goal of the Lead Agencies to exceed all stormwater treatment requirements as mandated the Maryland Department of the Environment. The Department considers these commitments by the Lead Agencies as a demonstration of their intent to construct and maintain a highway which impacts the aquatic environment to the least extent practical.

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Aitcheson Bog and Wetland 6J

Aitcheson Bog and wetland 6J support populations of State of Maryland listed endangered and threatened species. Aitcheson Bog contains populations of the threatened Halberd-leaved greenbrier (*Smilax pseudochina*). Wetland 6J supports populations of the endangered rough-leaved aster (*Aster radula*) and threatened Halberd-leaved greenbrier. The Lead Agencies are proposing to minimize the impacts to the Aitcheson Bog by shifting the ICC/I-95 interchange slightly to the north and by building a retaining wall between the ramp from the

eastbound ICC to the southbound I-95. This will reduce the impacts to Aitcheson Bog to 2.58 acres. The bog is 11.44 acres in size.

The Lead Agencies have shifted the alignment of the ICC to the south in the vicinity of wetland 6J to avoid the whole wetland and the endangered plants that reside within it. The Lead Agencies and land owner of the property have agreed to place a conservation easement on the wetland and preserve it from development.

Wetland Impacts

Corridor 1 impacts fewer wetlands than the best Corridor 2 alignments; Corridor 2AX and Corridor 2DB. Corridor 1 impacts approximately 18.0 acres of forested and naturally occurring emergent wetlands. In addition, approximately 30.0 acres of emergent wetlands created by gravel mining were also impacted by Corridor 1. Most of the forested wetlands to be impacted are of moderate value. One of the natural emergent wetlands that will be impacted (Wetland 1D) is of high value for wildlife. Most of the acreage of mined emergent wetlands are of low value with a few mined emergent wetlands east of I-95 rated as moderate value. Overall, Rock Creek Option C and Northwest Branch Option A have avoided most of the impacts to high value wetlands. The low and moderate value wetlands being impacted by Corridor 1 can be replaced at a combination of wetland creation sites that are listed under Table VII-19. Refer to the sub-

section labeled, "Wetland Creation Sites" to see the list of seven sites. We do not believe that these wetland impacts are of sufficient magnitude to consider Corridor 1 with the selected avoidance options as environmentally unacceptable.

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Stream Impacts

Corridor 1 impacts 900 linear feet of the Good Hope and two of its tributaries. This is a unique sub-watershed because it the only self-sustaining brown trout fishery remaining in Montgomery County. A Service biologist, who walked the Good Hope, observed that it was over-widened below the Hobbs Drive tributary and eroding excessively at four stream segments upstream of the Hobbs Drive tributary. Heated stormwater is being discharged at a minimum of two locations. As a result, the stream's ability to support a trout population is declining.

Even though the Good Hope may be in decline, the Lead Agencies have made a major commitment to minimizing the impacts to this trout stream. To minimize impacts, the Lead Agencies will be raising the Good Hope road profile an additional 25 feet and redirect stormwater from the Good Hope highway segment and bridge to a tributary of the Northwest Branch. They also will be treating and then redirecting the first flush of heated stormwater from the Montgomery County Maintenance Depot (located on a tributary to Good Hope) to the Northwest Branch tributary. A linear stormwater management system will be installed that treats, stores, cools, and infiltrates highway stormwater. During construction, the

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Lead Agencies will have the contractors employ redundant erosion and stormwater control measures to prevent discharges of sediment and stormwater into the Good Hope. The Department is reassured by the strategies that will be undertaken and believe every possible measure will be initiated to preserve the trout stream.

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Mitigation and Stewardship

The Department assessed the mitigation and stewardship packages to determine if the impacts of Corridor 1 were mitigated sufficiently enough. After field visits to the stream restoration sites, fish passage sites, and water quality sites, the Department believes the mitigation package alone would adequately mitigate for the impacts of Corridor 1. However, the mitigation package in combination with some of the major stewardship projects could improve aquatic habitat and increase fish populations in some of the watersheds. For example:

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1. Northwest Branch restoration projects labeled NW-160 and NW-170 would restore approximately 16,000 linear feet of the Northwest Branch main stem. This includes a 5,000 linear foot stream reach above Bonifant Road as well as an 11,000 linear foot stream reach below Bonifant Road. Northwest Branch in this area is experiencing extreme bank erosion and the pools are filling with sediment. The large sycamores on the banks are being undercut and falling into the stream. The stream is cutting behind the root balls of these fallen trees and creating a 20 to 30-foot erosion pool behind the root ball which is causing more bank erosion. The fallen trees are allowing more sunlight to warm the water which further reduces the oxygen level in the stream. The Lead Agencies have agreed to restore this extensive stream reach. If the restoration objectives include stream bank stabilization and habitat restoration, we believe there would be a net gain for the aquatic system in this area even when the impacts of highway construction are subtracted from the benefits of these two restoration projects. The Department believes that the Lead Agencies went beyond the mitigation requirements to ensure that Northwest Branch shows an improvement after project completion.
2. There are three fish passage projects (two on Rock Creek and one on the Paint Branch) that will open up miles of spawning habitat for blueback herring and alewives. These projects will extend the spawning habitat in these two streams upstream of the fish passage projects that the SHA Administration completed as mitigation for the Woodrow Wilson Bridge project. The Department believes these projects provide a significant environmental benefit to the Rock Creek and Paint Branch watersheds.
3. Stream restoration project PB-119 would reduce bank erosion and restore habitat on 1,000 linear feet of the Good Hope. This restoration in combination with two stormwater retrofit projects (PB-33 and PB-46A)

and construction of a new stormwater facility (PB-114A) should assist in reducing some of the impacts of constructing the Intercounty Connector along the Good Hope Tributary.

4. Two stream restoration projects on Indian Creek (IC- 59 and IC-62) should add 3,000 feet of quality habitat to a highly degraded stream that is nearly devoid of habitat upstream of Powder Mill Road. The Department rates these projects as high priority and a huge benefit to the Indian Creek watershed.
5. The Hollywood Branch is a tributary of the Paint Branch downstream of East Randolph Road. This is a badly eroding stream in a high density residential area. The Lead Agencies have selected two reaches of Hollywood Branch (PB-12B) that will stabilize 6,500 linear feet of the banks and streambed of this stream.

Environmental Compliance During Construction

The Lead Agencies have hired an Environmental Management Team (EMT) to insure that the ICC is constructed in an environmentally acceptable manner. This team will include smaller specialty teams. These specialty teams will include an environmental design review team, an environmental construction inspection team, and a mitigation and stewardship implementation and review team. Someone on the EMT will be responsible for tracking all project commitments and permit conditions throughout design, construction, and post-construction monitoring. This tracking system should insure that the commitments and permit conditions are not overlooked. An Independent Environmental Monitor has also been hired, that has no affiliation with the design, permitting, or construction firms, who will review the construction plans and monitor construction to provide added assurance that all permit conditions are followed during construction. There also will be a post-construction team to monitor the stormwater management systems, and mitigation and stewardship sites to insure that the facilities and sites are functioning properly. All these people are required to coordinate their activities with the regulatory and resource

agencies. The Department believes that this environmental compliance process will provide added assurance that this highway will be constructed in an environmentally acceptable manner. We believe that the Stewardship Environmental Review Process provides the platform for successfully constructing an Intercounty Connector that truly avoids, minimizes, and mitigates for the impacts of highway construction.

#	Comment	Response
US Department of Interior (DOI)		
1	<p>The Section 4(f) Evaluation includes replacement parkland that far exceeds that acreage which would be affected by the construction of Corridor 1. Affected recreation facilities will be replaced at locations less prone to flooding and wet conditions. At all of the major stream crossings, bridges with elevated road sections will provide room underneath for pedestrian and wildlife connections between park areas located on the north and south of Corridor 1. In addition, the Corridor 1 alignment minimizes impacts to mature forests, wetlands, floodplains, and other natural features within the park areas, especially in the selection of Rock Creek Option C, and Northwest Branch Option A. The mitigation package provides replacement parkland that closely replicates the parkland that will be impacted in terms of providing Forest Interior Dwelling Species (FIDS) habitat, mature forest adjacent to stream valleys and contiguous to public parklands, wetlands, floodplains, and plant and wildlife habitat.</p>	<p>The Lead Agencies acknowledge Department of Interior's (DOI's) position that the mitigation package provides replacement parkland that clearly replicates the parkland that would be impacted in terms of providing Forest Interior Dwelling Species habitat, mature forest, wetlands, floodplains, and plant and wildlife habitat.</p>
2	<p>The mitigation package generously replaces the parkland facilities, resources, and habitats that will be affected by construction of the ICC along Corridor 1. The Department therefore advises the FHWA that in our view, the requirements under Section 4(f) have been satisfied by the avoidance, minimization, and mitigation that is specified in the FEIS for the Corridor 1 Preferred Alternative alignment, including the Rock Creek Option C and Northwest Branch Option A.</p>	<p>The Lead Agencies acknowledge the DOI's position that, considering the mitigation package, the requirements under Section 4(f) have been satisfied by the Selected Alternative.</p>

#	Comment	Response
US Department of Interior (DOI)		
3	<p>The Department's especially satisfied with the Lead Agencies' proposals to include long bridges crossing the floodplains of major streams; to mitigate the loss FIDS habitat; to provide enhanced stormwater management; to minimize the use of parkland; provide replacement parkland; and to provide environmentally beneficial mitigation and stewardship projects.</p>	<p>The Lead Agencies acknowledge the DOI's satisfaction with the proposals to include long bridges crossing the floodplains of major streams (Attachment D); to compensate for the loss of FIDS habitat (Attachment E, Summary List of Project Commitments, numbers 122, 123, and 124 and Attachment D); to provide enhanced stormwater management (Attachment E, Summary List of Project Commitments, numbers 28-46, 86, 94-97; and 115 and Attachment D); to minimize the use of parkland; to provide replacement parkland (Attachment E, Summary List of Project Commitments, numbers 117-121 and Attachment D); and to provide environmentally beneficial mitigation and Environmental Stewardship projects.</p>
4	<p>Based on the measures and mitigations proposed by the Lead Agencies, the Department finds Corridor 1 with Rock Creek Option C and Northwest Branch Option A to be environmentally acceptable. However, the Department would like to take this opportunity to discuss the various avoidance, minimization, and mitigation measures to be employed by the Lead Agencies and suggest possible modifications to these environmental measures that could further enhance the environmental benefits of Corridor 1. The department's suggestions are provided in an attachment to this letter for your consideration.(These suggestions are described in numbers 5 through 22 below)</p>	<p>The Lead Agencies acknowledge DOI's position that Corridor 1 with Rock Creek Option C and Northwest Branch Option A is environmentally acceptable.</p>
5	<p>Additional impacts of Option A to FIDS habitat and upland forests is less harmful than the increased impacts to stream channels, floodplains, and wetlands that would result from construction of Option B.</p>	<p>The Lead Agencies acknowledge the DOI's opinion that the impacts to forests and FIDS habitat associated with Northwest Branch Option A would be less harmful than the impacts to stream channels, floodplains, and wetlands that would result from Northwest Branch Option B. Option A is part of the Selected Alternative.</p>

#	Comment	Response
US Department of Interior (DOI)		
6	<p>The Department's single biggest concern with Corridor 1 was its potential to fragment several large contiguous stands of interior forest that are located in parks in the study area. We believed that this habitat was irreplaceable in Montgomery County. Fortunately, the Lead Agencies found the 459-acre Casey Property at Hoyles Mills as replacement for FIDS habitat. This property would preserve 214 acres of FIDS habitat and 340 acres of forest that will be added to the M-NCPPC park system. This property is enclosed by parkland on three sides. We recommend that the agricultural fields be planted with the dominant trees on the property which would include native oaks (<i>Quercus</i> sp.), hickories (<i>Carya</i> sp.) and tulip popular (<i>Liriodendron tulipifera</i>).</p> <p>We understand that SHA intends to acquire an easement on the property before transferring it to M-NCPPC which requires the property to be retained as forest in perpetuity. This easement would ensure that the agricultural land will not be transformed into a developed recreation area. The Department believes this property is an exceptional replacement property for the FIDS habitat that will be impacted.</p>	<p>As coordinated with DOI during the Inter-Agency Working Group process, it has been agreed that the Lead Agencies will transfer the Casey Property at Hoyles Mill to the Maryland-National Capital Park and Planning Commission (M-NCPPC), as described in Table VII-19 on page VII-58 of the Final EIS and ROD Attachment D. Reforestation stock is anticipated to include all three of the species mentioned as well other tree species native to western Montgomery County. A planting plan will be developed for review and approval by both the Maryland Department of Natural Resources and M-NCPPC prior to any planting. It is anticipated that tree species will need to be native to the area. MdSHA will not acquire an easement for the Casey Property but will instead acquire the property in fee. Appropriate covenants to protect the natural resource value of the property will be worked out in consultation with M-NCPPC and DOI before the property is transferred into the M-NCPPC park system.</p>

#	Comment	Response
US Department of Interior (DOI)		
7	<p>The Lead Agencies have committed to provide long bridges over the major floodplains at nine stream locations. This is a crucial improvement over the last study of the Intercounty Connector in 1997 and demonstrates to all the environmental resource agencies the extraordinary commitment that the Lead Agencies have made to make this an environmentally acceptable alternative. The long bridges preserve most of the functions of the highest value wetlands, streams, and floodplains that will be impacted by Corridor 1. However, vegetation will not grow beneath the bridge decking if the bridges are not high enough or if the west, bound and east bound bridges are not adequately separated to allow sunlight and rain to diagonally reach the ground beneath the bridge decking. Without vegetation, the bridges will become partial barriers to small mammals such as mice and voles which do not readily traverse open areas. In addition, without plants, no habitat will be available for wildlife. The stream banks will start to erode when the tree roots decompose and nothing is left holding the banks.</p>	<p>The Lead Agencies acknowledge the DOI's position that the commitment to provide long bridges over the major floodplains is a crucial improvement over the 1997 ICC study and demonstrates the Lead Agencies' extraordinary commitment to making the Selected Alternative an environmentally acceptable alternative. Bridge heights, as well as the separation between the eastbound and westbound bridge spans, have been discussed at length with the agencies through the Inter-Agency Working Group process. Agreement has been reached among the agencies that the bridges will be separated by 12 feet in most areas to minimize impacts. It was also agreed that, in the North Branch Rock Creek and Paint Branch watersheds, there will be 26 feet of separation between the eastbound and westbound bridge spans. It is anticipated that some bridges may not have enough sunlight to allow for vegetation to become established, particularly in locations where the project must be constructed within the Designated Transportation Area in order to avoid increasing the use of adjacent parkland. In these areas, based on engineering design, some protection measures such as riprap or stone may be required. These issues will continue to be reviewed and discussed as the final design engineering work proceeds.</p>
	<p>This will require the armoring of the stream banks with riprap. The area under the bridges will evolve into dark, dry, and barren landscapes with armored stream channels. The benefits of such long bridges will become significantly compromised from the intent to mitigate impacts of floodplain crossings. We believe that a few modifications to the bridge heights and spacing will alleviate our concerns. <i>[Comment Continued on Next Page]</i></p>	

#	Comment	Response
US Department of Interior (DOI)		
	<p>The westbound and eastbound lanes of the ICC will be placed on separate bridges that are 60-feet wide. The bridge superstructure and decking is a minimum five feet in height. The US Fish & Wildlife Service believes that an opening of between 20 and 30 feet between the bridges would allow more light and precipitation to hit the ground thus enhancing the perpetuation of a partially robust vegetative community under the inside edges of each bridge. However, the Department recognizes and supports the consensus of the Lead Agencies that the narrower 12-foot space between bridges is adequate to minimize impacts to parks and wildlife.</p> <p>If the spacing between bridges is increased, the width of road fill on each end of the bridges also will need to increase to accommodate the wider opening between bridges. The road median can begin to be widened before the bridges and reduced as the road moves away from the bridges. This will limit the quantity of additional fill needed as the median width will be reduced as the highway moves away from the ends of the bridges.</p>	<p><i>[See Response on Previous Page]</i></p>
8	<p>The Northwest Branch bridges at Station 533 should have a clearance of approximately 30 feet between the bottom of the superstructure and the surface of the floodplain.</p>	<p>The westernmost bridge over Northwest Branch will be constructed such that the profile grade line at centerline Station 532+30 and the profile grade line at centerline Station 535+00 are 44 feet and 39 feet, respectively, above the elevation of the floodplain floor immediately below (Attachment D).</p>
9	<p>The Northwest Branch bridges at Station 561 should have a clearance of approximately 38 feet between the bottom of the superstructure and the surface of the floodplain.</p>	<p>The bridge over Bonifant Road and Northwest Branch will be constructed such that the profile grade line at centerline Station 560+00 is 46 feet above the elevation of the floodplain floor immediately below. This is included in Attachment E, Summary List of Project Commitments, number 61.</p>

#	Comment	Response
US Department of Interior (DOI)		
10	The Northwest Branch bridges at Station 593 should have a clearance of approximately 39 feet between the bottom of the superstructure and the surface of the floodplain.	The easternmost bridge over Northwest Branch will be constructed such that the profile grade line at centerline Station 594+00 is 48 feet above the elevation of the floodplain floor immediately below. This is included in Attachment E, Summary List of Project Commitments, number 62.
11	The Gum Spring and Paint Branch bridges should have a clearance of approximately 30 feet between the bottom of the superstructure and the surface of the floodplain.	The bridge over Gum Springs Tributary and Paint Branch mainstem will be constructed such that the profile grade line at centerline Station 742+00 and the profile grade line at centerline Station 749+00 are 43 feet and 38 feet, respectively, above the elevation of the floodplain floor immediately below. This is included in Attachment E, Summary List of Project Commitments, number 64.
12	The Little Paint Branch bridges should have a clearance of approximately 30 feet between the bottom of the superstructure and the surface of the floodplain. The Department is concerned that the proposed bridge with an average of 16-feet of clearance will shade and could eventually kill the vegetation under it. This will cause the banks of the Little Paint Branch to erode. This stream is presently carrying an excessive sediment load which will only accelerate bank erosion and the lateral movement of the stream channel across the floodplain if the vegetation dies and the roots decompose.	The bridge over Little Paint Branch will be constructed such that the profile grade line at centerline Station 880+00 is 40 feet above the elevation of the floodplain floor immediately below, shall be approximately 530 feet long, and shall result in no permanent fill within 30 feet of the top of any streambank. This is included in Attachment E, Summary List of Project Commitments, number 65.
13	There is little or no environmental benefit to bridging wetland 8D. This moderate to low value wetland will be bordered on the south, east, and west by highway ramps. To the north is the existing 1-95 box culvert. A stormwater management pond will be located adjacent to and west of wetland 8-D. A 200-foot long culvert will be placed in Indian Creek, just downstream of this wetland, to allow for the construction of Ramps NBCD and P-AA. Indian Creek is presently filled with sediment from the gravel mine just upstream and offers poor quality habitat to fish and aquatic insects. We do not believe that the quality of this stream segment will improve significantly following ramp construction on bridges. It would be more environmentally beneficial to mitigate for the wetland than to try to minimize impacts through bridging.	The bridge for ramp P-A is intended primarily to carry the ramp over the northbound NB-CD road, and has the added benefit of reducing the fill in wetland 8D.

#	Comment	Response
US Department of Interior (DOI)		
14	<p>All trees under the foot print of the floodplain bridges should be cut down and the stump and roots left in place to hold the stream banks and floodplain soils: The tree stumps should only be removed in the area of the pier foundations or in areas needing scour protection.</p>	<p>Based on post-FEIS coordination with the Army Corps of Engineers (ACOE), there will be no grubbing (the removal of roots and stumps) of vegetation that grows beneath the proposed bridges over Rock Creek, North Branch Rock Creek, Northwest Branch, Good Hope Tributary, Gum Springs Tributary, Paint Branch Mainstem, or Little Paint Branch except where needed to construct foundations or haul roads, or to place slope protection. It is anticipated that this will be a permit condition.</p>
15	<p>The Department and Lead Agencies are concerned that mammals, reptiles, and amphibians populations inhabiting the regional and stream valley parks will be run over on the newly constructed ICC. The parks contain the largest and most diverse populations of terrestrial wildlife in the immediate urban area. The Department suggests the use of eight-foot high fencing along the highway right-of-way at road segments adjacent to regional or stream valley parks to prevent deer from accessing the highway. The bottom of the fence should be attached to the ground or buried six-inches in the ground to prevent deer from crawling under it. A three-foot high fence should be buried 6-inches in the ground and attached to the deer fence to prevent small mammals, reptiles and amphibians from accessing the highway.</p> <p>The Department believes the fencing can be limited to the large parks with the biggest wildlife populations. Fences should be erected along each of the following parks: Mill Greek Stream Valley Park, Rock Creek Regional Park, North Branch Stream Valley Park, Northwest Branch Recreational Park, Northwest Branch Stream Valley Park, Upper Paint Branch Stream Valley Park, and Little Paint Branch Stream Valley Park. <i>[Comment Continued on Next Page]</i></p>	<p>Fifty passage cells are included in the Selected Alternative to provide safe passage for wildlife (Final EIS Figure IV-6). Based on post-FEIS coordination with the resource and regulatory agencies, it was agreed that all culverts lengths designed for deer passage will be as short as possible, but in no case shall they exceed 280 feet (high headwalls or other measures will be needed to satisfy this specification at some locations). Because these culverts are being constructed specifically to accommodate deer passage, the interior dimensions will be 12-foot by 12-foot or larger (Attachment D). If located in a floodplain, they will be set at an elevation that will result in no more than a two-foot thickness of natural sediment deposition to allow for a minimum clearance of 10 feet. There shall be no riprap in either the bottom of the culvert or on the approaches to the culvert that would make the culvert inaccessible by deer, unless the riprap is buried. The deer cells will not be used to convey the base flow of the stream. The deer can traverse through the dry cell of a two-cell culvert, provided it meets the above specifications. <i>[Response Continued on Next Page]</i></p>

#	Comment	Response
US Department of Interior (DOI)		
	<p>A deer passage culvert is proposed for a gas line right-of-way. The ICC right-of-way should be fenced for 500-feet on both the east and west sides of the north and south facing culvert openings. This fencing will assist in directing deer to the culvert. <i>[Comment Continued on Next Page]</i></p>	<p>If other than a rectangular shape is used, the cross section of the alternative-shaped culvert shall be large enough that a 12-foot by 12-foot square could fit inside it. Culverts will be designed to accommodate deer passage at the following locations: Station 150 (tributary to Mill Creek); Station 173 (tributary to Mill Creek); Station 276 (the 42-inch gas lines crossed by Rock Creek Option C); and, Station 312 (tributary to North Branch Rock Creek). (Attachment D).</p> <p>Chain-link wildlife exclusion fencing will be used to funnel deer and other wildlife to wildlife crossings. Chain-link fencing will be a minimum of 8 feet above the ground elevation, and the fence mesh shall penetrate the ground to a depth of one foot (Attachment E, Summary List of Project Commitments, number 50). A three-foot high fence, constructed of 0.25" x 0.25" square wire mesh hardware cloth material will be attached to the outside of the chain-link fencing where the fencing is adjacent to forested areas, stream valleys and SWM ponds, and buried to a depth of at least 6 inches, to form an impenetrable barrier to reptiles and amphibians. The wildlife exclusion fencing will extend along the highway approximately one-half mile in each direction from each wildlife passage culvert or bridge, except where noise barriers or retaining walls are present and sufficient to exclude wildlife from the highway (Attachment E, Summary List of Project Commitments, number 50). Interchanges will be fenced to the best extent practicable.</p> <p>The Lead Agencies acknowledge that based on the limited habitat, small mammal passages may not be viable as initially thought. The placement of the culverts in the locations referenced to in the Final EIS is still proposed primarily to provide the best hydraulic/hydrologic design. It is still anticipated that wildlife may utilize or adapt to using the culverts for movement from one side of the ICC to another (Attachment D).</p>

The Department and MNCPPC deer expert, Rob Gibbs, have agreed that the minimum structure size for a wildlife corridor for deer would be 12-foot by 12-foot. The FEIS partially quoted the memorandum, dated December 19, 2003, from Rob Gibbs, who is the Chairman of the Montgomery County Deer Management Work Group. On page IV-275, the FEIS referenced the memorandum and stated the Work Group recommended, "Culverts, when used in place of a bridge, should have a minimum height of eight feet with sufficient openness to allow animal passage." The memorandum actually stated, "Where bridges are not feasible, culverts should be as large as possible with a minimum height of 8 feet and an openness ratio of at least 1.0 when the following formula is applied-Width of opening x height of opening/length of culvert. Since the average culvert length for the highway will be 280 feet, an eight-foot high culvert would have to be 35-foot wide. A ten-foot high culvert would need to be 28-feet wide and a 12-foot culvert would need to be 23-foot wide. The Department believes the 12-foot by 12-foot culvert to be a reasonable compromise.

The Lead Agencies are concerned about small mammal populations that will be bisected by the highway. They propose to provide small mammal culverts at five locations along Corridor 1. We do not believe however, that these culverts are needed at four of the five locations. The floodplain bridges bisecting the parks will provide most of the necessary corridors for small mammals. We do not believe a significant percentage of mice (*Peromyscus* sp.) and voles (*Microtus* sp.) will cross a 260-foot to 280-foot long culvert along a bare shelf. Other small mammals such as gray squirrels (*Sciurus carolinensis*), red foxes (*Vulpes fulva*), opossums (*Didelphis marsupialis*), and striped skunks (*Mephitis mephitis*) will use the bridges or deer culverts for crossing under the highway. Besides, all the proposed small mammal passage culverts are located in areas that are developed or soon to be developed. Retail, office, or light industrial development will occur to the north, south, and west of the 1-370 interchange. *[Comment Continued on Next Page]*

[See Response on Previous Page]

#	Comment	Response
US Department of Interior (DOI)		
	<p>A forested stream valley will remain east of the highway ramps. It is not necessary to have a small mammal passage between a protected natural area and three areas that will be developed.</p> <p>A small mammal passage is proposed for station 285. This passage would provide a corridor between Cashell Farm and North. Branch Stream Valley Park. Once Cashell Farm is developed into residential housing, this corridor will not be necessary.</p> <p>At Station 360, a residential development listed as Sycamore Acres is located south of the proposed highway corridor. Once the highway is built, there will only be a small amount of wooded habitat left south of the highway except for the scattered trees, shrubs, and lawn in the backyards of the homes at Sycamore Acres. To the north, a forest and meadow area of approximately 40 acres in size will be preserved between the Brooke Manor residential area and the highway. The Department does not believe a corridor would be necessary between the Brooke Manor open space and the Sycamore Acres development. The 40 acre forest/meadow complex will be able to support a sizeable population of small mammals.</p> <p>There will be two small areas of habitat left at Station 654 after the highway is constructed. Small mammal passage in this area will only provide a corridor between the Colesville and Colesville Manor residential areas. This small mammal culvert is not needed because there will be no habitat left after the highway is constructed.</p> <p>Station 974 may be the only good location for a small mammal passage. Small mammals can pass between wetland 6j and the stream valley to the south. However, this area will be re-developed into office, light industrial, or dense residential housing. It is presently an area of fields, woods, and low density housing. The Department believes that future development will limit the usefulness of this passage and recommends that it be dropped from further consideration.</p>	<p><i>[See Response on Previous Page]</i></p>

#	Comment	Response
US Department of Interior (DOI)		
16	<p>The Service is not opposed to any of the small mammal passages. We believe that these corridors provide little to no benefit at four of the five proposed locations. We also believe the benefits of the fifth location will be limited to the pre-development status of the properties. Once the area is developed; this passage will not benefit small mammals to any significant degree. The bridges provide the best corridors for all the terrestrial wildlife common to the selected alignment.</p>	<p>The Lead Agencies acknowledge that based on the limited habitat, small passages may not be necessary as initially believed by the resource agencies. The placement of the culverts in the locations referenced to in the Final EIS is still proposed because it is the best hydraulic/hydrologic design. It is still anticipated that wildlife may utilize or adapt to using the culverts for movement from one side of the ICC to another.</p>
17	<p>The Lead Agencies propose to create vernal pools at the wetland mitigation sites. This does not mitigate for vernal pool loss in the impacted parklands. The existing populations of park amphibians need a replacement pool where they can reproduce. The Department recommends that the vernal pools be replaced near the impacts and in coordination with the MNCPPC. After the ponds are not needed for sediment and erosion control, these facilities can be graded into vernal pools. Vernal pool replacement in the parks should occur where the existing populations are located.</p>	<p>Based on post-FEIS coordination with the resources agencies, it has been agreed that construction of replacement vernal pools will be considered but not limited to North Branch Rock Creek and Northwest Branch. In coordination with M-NCPPC, areas may be identified on parkland and in close proximity to the right-of-way that will not require additional forest clearing. Design and construction of vernal pools will be coordinated with M-NCPPC.</p>
18	<p>The Department believes the Lead Agencies commitments to water quality are exceptional. These commitments exceed the requirements of the Maryland Department of the Environment</p> <p>These advanced stormwater management facilities will negate the majority of water quality and erosive impacts associated with the acres of impervious surfaces that the highway will add to the watersheds. It is the goal of the Lead Agencies to exceed all stormwater treatment requirements as mandated by the Maryland Department of the Environment. The Department considers these commitments by the Lead Agencies as a demonstration of their intent to construct and maintain a highway which impacts the aquatic environment to the least extent practical.</p>	<p>The Lead Agencies acknowledge the DOI's satisfaction with commitments to water quality. Design of the ICC will use the stormwater management design parameters as described starting on Page IV-170 of the Final EIS, which go beyond current minimum standards, to reduce overall impacts to water resources. Commitments to this effect, as coordinated with the Inter-Agency Working Group, are included in the Commitments listed in Attachment E of the ROD (Summary List of Project Commitments, numbers 28 through 46, 86, 94, 97 and 115).</p>

#	Comment	Response
US Department of Interior (DOI)		
19	<p>We do not believe that wetland impacts are of sufficient magnitude to consider Corridor 1 with the selected avoidance options as environmentally unacceptable.</p>	<p>The Lead Agencies acknowledge the DOI's opinion that with the selected avoidance options Corridor 1 is not environmentally unacceptable. As you are aware, the Lead Agencies have identified avoidance and minimization measures to reduce wetland and waterway impacts. The ICC will be designed to incorporate these and will consider additional design and construction techniques to further minimize impacts to wetland and waterway resources.</p> <p>To ensure that avoidance and minimization of wetland impacts continues to be a priority as the project moves into design and construction, the Lead Agencies will provide monetary incentives to the Design-Build teams to further reduce wetland impacts. In addition, an overall monetary award program for excellence in project-wide environmental compliance will also be initiated.</p>
20	<p>Even though the Good Hope may be in decline, the Lead Agencies have made a major commitment to minimizing the impacts to this trout stream. To minimize impacts, the Lead Agencies will be raising the Good Hope road profile an additional 25 feet and redirect stormwater from the Good Hope highway segment and bridge to a tributary of the Northwest Branch. They also will be treating and then redirecting the first flush of heated stormwater from the Montgomery County Maintenance Depot (located on a tributary to Good Hope) to the Northwest Branch tributary. A linear stormwater management system will be installed that treats, stores, cools, and infiltrates highway stormwater. During construction, the Lead Agencies will have the contractors employ redundant erosion and stormwater control measures to prevent discharges of sediment and stormwater into the Good Hope. The Department is reassured by the strategies that will be undertaken and believe every possible measure will be initiated to preserve the trout stream.</p>	<p>The Lead Agencies acknowledge the DOI's satisfaction with the commitments to minimize the impacts to the Good Hope. Based on post-FEIS coordination with the resource and regulatory agencies, the bridge over Good Hope Tributary shall be constructed such that the profile grade line at centerline Station 690+50 is 66 feet above the elevation of the floodplain floor immediately below, shall be approximately 590 feet long, and, utilizing retaining walls, will result in no permanent fill within 30 feet of the top of either streambank (Attachment E, Summary List of Project Commitments, number 63). This profile is designed to prohibit directing the discharge of runoff into Good Hope and Gum Springs Tributaries. If an alternative means of ensuring that the highway runoff can be collected, treated, and discharged to the Paint Branch mainstem, with no runoff directed to the Good Hope or Gum Springs Tributaries is identified, the vertical under clearance (from the bottom of superstructure steel to floodplain floor) could be as low as 45 feet, in which case the bridge length shall be sufficient to maintain a bottom opening on the ground of 380 feet, measured between the toes of fill, directly beneath the highway centerline (Attachment E, Summary List of Project Commitments, number 63). <i>[Response Continued on Next Page]</i></p>

#	Comment	Response
US Department of Interior (DOI)		
	<i>[See Comment on Previous Page]</i>	The Lead Agencies are committed to maintaining the quality of the Good Hope system. The unprecedented level of stormwater management and erosion and sediment control measures, along with environmental stewardship and compensatory mitigation projects in the watershed are anticipated to be a major component in helping maintain the high water quality of the Good Hope and the Paint Branch as a whole.
21	The Department assessed the mitigation and stewardship packages to determine if the impacts of Corridor 1 were mitigated sufficiently enough. After field visits to the stream restoration sites, fish passage sites, and water quality sites, the Department believes the mitigation package alone would adequately mitigate for the impacts of corridor 1. However, the mitigation package in combination with some of the major stewardship projects could improve aquatic habitat and increase fish populations in some of the watersheds.	The Lead Agencies acknowledge DOI's position that the mitigation package adequately mitigates for the impacts of Corridor 1. The Environmental Stewardship Projects, as described in Table VI-6 on Page VI-13 of the Final EIS are included as commitments in Attachment A of the ROD and will be implemented to improve areas of need identified through agency and public input.
22	The Department believes that this environmental compliance process will provide added assurance that this highway will be constructed in an environmentally acceptable manner. We believe that the Stewardship Environmental Review Process provides the platform for successfully constructing an Intercountry Connector that truly avoids, minimizes, and mitigates for the impacts of highway construction.	An Environmental Management Plan will be implemented (Attachment E, Summary List of Project Commitments, number 78) for the duration of design and construction of the ICC and its related compensatory mitigation and environmental stewardship projects. The Environmental Management Team will provide up-to-date information on program elements, successes and challenges, compliance levels, and overall project progress to the Inter-Agency Working Group. An environmental oversight Memorandum of Understanding (MOU) will be established (Attachment E, Summary List of Project Commitments, number 154) to maintain the partnership between the Lead Agencies, resource agencies and permitting agencies along with county agencies to assure that the avoidance, minimization, mitigation and environmental stewardship efforts committed to through the NEPA process, are realized through design and construction of the ICC. Coordination will continue throughout the design and construction phases to discuss refinements in accordance with the MOU. These and related environmental oversight measures are discussed on pages in the ROD.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

APR 27 2006

Mr. Nelson J. Castellanos
Division Administrator
Federal Highway Administration
City Crescent Building
Suite 2450
10 South Howard Street
Baltimore, MD 21201

RE: Intercounty Connector (ICC) from I-270 to U.S. 1, Montgomery and Prince George's Counties, Maryland, Final Environmental Impact Statement/Section 4(f) Evaluation, CEQ EIS No. 20060004

Dear Mr. Castellanos:

In accordance with the National Environmental Policy Act (NEPA), Section 309 of the Clean Air Act, Section 404 of the Clean Water Act (Section 404), and the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500-1508), the U.S. Environmental Protection Agency (EPA) has reviewed the Final Environmental Impact Statement (FEIS) for the proposed Intercounty Connector (ICC) project, dated January 3, 2006. The FEIS has been developed by the Federal Highway Administration (FHWA) and Maryland State Highway Administration (SHA) based on the Draft Environmental Impact Statement (DEIS) presented to the public and the regulatory agencies in November 2004. This letter and the supporting technical comments discuss construction and operation of the ICC in Corridor 1, the FEIS' preferred alternative. We understand, however, that a final decision for a build alternative with specific options will not be made by the FHWA until the Record of Decision (ROD). The No Build alternative clearly has the least environmental harm. EPA has stated a preference for Corridor 2, if a build alternative would be selected, based on avoidance of the highest quality natural resources.

A proposed transportation link between I-270 (Gaithersburg) and I-95/US 1 (Laurel/Konterra) has been studied for decades. Two Environmental Impact Statements (EIS) have been prepared prior to this current study. This third study commenced in summer 2003, a few months after the project was placed on the Executive Order (EO) 13274 (Environmental Stewardship and Transportation Infrastructure Project Review) as a national transportation



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priority project. A Cabinet-level task force was established to oversee progress on the transportation projects listed in the EO. EPA has been involved in the project at the staff level, as a participant in the Interagency Working Group (IAWG) and at the executive management level as a member of the Principals Plus One (P+1) group. EPA has provided formal written comments after circulation of the Purpose and Need Statement (June 30, 2003 and September 19, 2003) and on the DEIS (February 25, 2005); informal comments were exchanged throughout the project development.

Our comment letter of February 25, 2005 on the DEIS discussed the EPA's issues and concerns on the proposed highway. We contend that both build alternatives (Corridor 1 and Corridor 2) would have significant adverse environmental impacts. The preferred alternative of the transportation agencies, Corridor 1, will impact important natural resources, particularly in Montgomery County's stream valley parks, including wetland complexes in Northwest Branch and tributary streams to Paint Branch. Our letter of February 25 stated that construction and operation of a highway through a complex of upland, wetland and riparian forest could significantly diminish the structure, function and value of the residual forest.

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The transportation agencies' preference to proceed with the ICC on Corridor 1 has been made with the knowledge of the environmental concerns inherent in this alternative. The FHWA

and SHA have incorporated many features intended to reduce or mitigate impacts. EPA acknowledges the selection of Option C in Rock Creek and Option A in Northwest Branch as environmental impact avoidance and minimization measures, and supports the two options, as they represent significant savings to parkland and interior forest in Rock Creek and aquatic resources in Northwest Branch. Resources along the alignment will still be degraded and fragmented, but it is expected that minimization, mitigation, enhancement and preservation efforts will help to sustain environmental conditions for the regional area. The aquatic and parkland mitigation package, environmental stewardship projects, and the commitment to environmentally sensitive design and construction methods have addressed many of the concerns in our DEIS comment letter. The development of these plans, and follow through on all commitments made to the public and the regulatory agencies, will need to be carefully observed and tracked to assure compliance. A Memorandum of Understanding (MOU) between the

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transportation agencies and participating Federal and State resource agencies is being drafted to assure an oversight role for the resource agencies and transparency in the level of accomplishment of all commitments made. The list of commitments, the tracking procedures, the environmental management plan and the use of environmental monitors, will be included in the FHWA's Record of Decision (if a build alternative is adopted) and are crucial commitments to EPA and the public.

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Thank you for the opportunity to participate in this study, and to provide comments and recommendations on the environmental issues of this project. If there are any questions, we would be pleased to discuss any comments or suggestions presented in this letter, the technical comments enclosed, or previous comments. As we have not received all public response to the preferred alternative and the FEIS at the time of the writing of this letter, we reserve the right to further comment based on public input. Please feel free to contact either William J. Hoffman,

Chief of the Environmental Programs Branch at (215) 814-2995, or Barbara J. Rudnick, principal staff contact, at (215) 814-3322.

Sincerely,

A handwritten signature in black ink that reads "Donald S. Welsh". The signature is written in a cursive, slightly slanted style.

Donald S. Welsh
Regional Administrator

Enclosure

cc: Neil J. Pedersen, SHA
Christina E. Correale, Corps
John Wolflin, FWS
John Parsons, NPS

TECHNICAL COMMENTS

The format of these comments will closely follow those provided by EPA for the DEIS.

GENERAL PROCESS FOR THE ICC NEPA/SECTION 404 STUDY

EPA has participated in the current ICC study as a Cooperating Agency, at the staff and executive management level, at the request of FHWA and Maryland Department of Transportation. NEPA requires the responsible or lead Federal agency (in this case, FHWA) to consult with and obtain the comments of any Federal agency (a Cooperating Agency) which has jurisdiction by law or special expertise with respect to any environmental impact involved. As the project was placed on the national transportation priority list established under Executive Order (EO) 13274 (Environmental Stewardship and Transportation Infrastructure Project Reviews), it was determined that the traditional Maryland Streamlined Environmental and Regulatory Process would be adapted for the ICC study. The adapted process has entailed a rigorous schedule of expedited deadlines, data collection, analysis and review.

EPA provided formal comment at milestones in the project, such as Purpose and Need, and informal comment on a continuous basis. Overall, the process has been effective in expediting the NEPA/Section 404 study and providing adequate data for analysis. Though any study of this magnitude, and controversial nature, could benefit from additional time and work, the scope of the study of environmental resources and impacts is believed to be appropriate for the NEPA/404 process. While environmental resource agencies may prefer protection of all resources, evaluation of a major public works project requires assessment of resource values and functions, and prioritization of resources in order to accommodate any potential build alternative. The field and office meetings of the IAWG and its subgroups were an effective forum for Federal, State and local government agencies to work cooperatively to identify resources, discuss intrinsic value, priorities and concerns, and to propose methods for avoidance, minimization or mitigation. The process was expedited and effective given the close engagement of State and Federal executive management in the P+1 group, the enhanced role of Federal executives due to an EO, SHA's heightened awareness of environmental issues associated with this project and SHA's acknowledgment of the need to address environmental concerns, through Environmental Stewardship, compensatory mitigation and highway design.

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The agencies cooperated in the review of a preliminary copy of the FEIS, and the FEIS signed in early January. The public availability and review process, originally closing in late February, was extended three times (to late March, early April, then to late April) primarily as a result of the need to circulate a correction of an error in the FEIS appendix and later, the release of the PM2.5 air quality analysis. While these extensions are laudable, we believe their incremental nature (and announcement at the close of the comment periods) may have reduced their benefit to the public.

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TECHNICAL OVERVIEW AND RATINGS

Adequacy of the Impact Statement. Rating for the Document

The EPA rating of the DEIS was Category 2 (Insufficient Information). More detailed information was requested on a variety of issues, including those discussed below. Overall, the adequacy of the document and proposed project have improved due to additional supplemental studies and environmental commitments.

The EPA requested detailed and comprehensive compensatory mitigation for aquatic resources, interior forest and parkland resources, and Environmental Stewardship (ES) projects. A compensatory mitigation package for aquatic resources and an ES package was finalized in spring 2005. A comprehensive list of sites and conceptual plans was presented. Back-up sites have also been included, in case design or property ownership impediments arise; there will be the ability to incorporate new sites, if there is agreement by the interagency group that an opportunity has been inadvertently overlooked and would provide superior benefit to the local area. The complete mitigation proposal by SHA includes projects for compensatory aquatic mitigation, ES, State regulated forest replacement requirements, land purchases and preservation for replacement of interior forest and parkland which includes the 458-acre Casey property and the 49-acre Santini Road Property. EPA has requested that the commitment list in the ROD specify some of the mitigation and compensation believed not to be clearly identified (or out-dated) in the FEIS tables. EPA has suggested that mitigation monitoring be extended to 10 years, particularly for forested wetlands (the FEIS' suggestion of monitoring for up to five years, p. IV-245, was questioned by several agencies, including EPA, earlier).

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Documentation of wetland impacts was considered unclear in the DEIS. Language in the FEIS has clarified the changes in wetland impacts from the previous study in 1996 which did not include resources on the Konterra property. The FEIS also discussed reductions in wetland impacts on Corridor 1 since the DEIS was distributed. Wetland impacts have been reduced from 67 acres in the DEIS, to 48 acres in the FEIS, and stream (perennial, intermittent and ephemeral) impacts were reduced from an upper estimate of 58,200 linear feet reported in the DEIS to about 44,000 linear feet in the FEIS.

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A supplemental document has been prepared to evaluate a comparison of impacts between Corridor 1 and 2 for the Rocky Gorge Reservoir watershed ("Comparative Water Resources Hazard Assessment", November 22, 2005). EPA requested a risk evaluation for the reservoir with consideration to direct impacts, indirect impacts, and secondary development. We asked that any measures that could be incorporated to minimize impact be identified. It is evident that progressive deterioration of the reservoir capacity and water quality is currently occurring. Though Corridor 2 may have accelerated water quality impacts as stated in the report, secondary development predicted from Corridor 1 will also impact the Rocky Gorge watershed. The concerns evaluated in the document associated with secondary development related to Corridor 2 are likely to be only somewhat less, or an issue later in time, if Corridor 1 is built. It is clear that selection of Corridor 1 reduces direct risk to the reservoir from hazardous spills.

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Though the report indicates that use of MD 28/MD 198 by transport trucks still may pose some risk, it is anticipated that some of the traffic will move to the ICC, if it is constructed. EPA appreciates the effort SHA is making to reduce the possibility of a hazardous spill on the section of US 29 crossing the reservoir, by prohibiting vehicles that are carrying hazardous materials from using the road.

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Many issues stated to be of concern in our review of the DEIS have been discussed, and recommendations given, by the IAWG. These include: culvert and bridge dimensions, use of retaining walls to minimize forest and stream encroachment, wildlife passage (for small mammal, amphibian, reptile and deer); deer, reptile and amphibian exclusion fencing; burying or covering rip rap to allow deer crossing, environmentally sensitive construction procedures (especially in areas of temporary wetland disturbance), redundant sediment and erosion controls, placement and style of storm water management facilities, replacement of vernal pools near pools disturbed or removed by construction, phasing construction to limit the amount, and length of time, stripped land is without stabilizing vegetation, etc. These commitments and requirements should be included in State and Federal permit conditions, regarding most or all of these issues.

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EPA understands that design and construction decisions are finalized by the design-build team. We expect clear direction given to the team that commitments have been made for environmental impact minimization, environmentally sensitive design, construction and operation. The design-build team should be aware that any opportunity to further avoid and minimize environmental impacts is encouraged and should be implemented. EPA has asked for continued interagency engagement through the design, construction and post-construction monitoring for the ICC, and for its mitigation and ES projects. We expect that the finalized list of commitments for the project will be approved by the interagency team and will be included in the ROD. An MOU is being drafted to assure continued involvement of the interagency team, provide for high levels of monitoring and oversight, transparency of commitments made and success in accomplishing them. Agencies will be able to track progress on all commitments.

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Bridge and culvert dimensions have been a particular concern to the IAWG. Bridges are shown at nine locations, and it is expected that no reduction to the commitments will be made, unless there is agreement that a change will significantly reduce natural resource impact, and there is the agreement by the interagency team. EPA has supported the position of Montgomery County and encouraged consideration of resource impact avoidance and minimization at Station 174 through bridging, where a culvert is shown in the FEIS. It has been the position of the EPA that the park function for the community, and stream and seep habitat, would be best maintained with a bridge. As it appears that the County has agreed to a dual culvert system, we expect that all design measures will be taken to assure park conductivity for the public and hydraulic conductivity to preserve seeps and wetlands south of the alignment.

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As a general standard, culverts sized to allow a 1.0 ratio (opening area to length) have been considered adequate for deer passage. Though it has been shown that deer will use smaller passages, there has been no study to determine what the statistical level of use may be. The interagency team has agreed that culvert size as small as 12' x 12' size (allowing an opening of

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12' x 10' with a 2' sediment bottom) should not greatly compromise use for passage. Any reduction in culvert length or enlargement of the opening dimension could improve function.

Accommodation for amphibian and reptile passage, possibly on the edges of a wet cell, to enhance shelter and moisture without strong flow, should be investigated and designed where appropriate. (Alternative design to accommodate amphibians may include establishing vernal pools on either side of the road, and preventing the ability and need to cross over the road).

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It is the understanding of EPA that redundant, state-of-the art erosion and sediment controls (ESCs) will be in place during construction in the most environmentally sensitive areas (expected to be the Special Protection Areas and/or any Use III waters). Placement of controls in all areas needs to be made with consideration to potential re-use as vernal pools and to minimize impact to high quality forest. Where alternate locations to reduce intrusion into high quality forest are possible, they should be pursued. For instance, we are concerned about the location of ESC in mature forest around Stations 173-176, south of the alignment; placement to the north may be preferable. Coordination with the park stewards is recommended.

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Our technical comments on the DEIS requested detailed description of stormwater management (SWM). It is not apparent that a discussion of possible failures or limits of effectiveness of SWM is highlighted in the FEIS, though the document does identify proposed SWM methods. EPA has been assured that the commitment list in the ROD will include clarification and more details of SWM design and placement. It is expected that all waters in the Special Protection areas and watersheds classified as Use III-Natural Trout Waters will be afforded the SWM design most protective of water quality (including temperature). It is also expected that SWM design will be implemented to ensure the stream channels of the Northwest Branch are protected from further erosion; other measures, such as mitigation projects, will go further to enhance channel stabilization. MDE will oversee implementation of effective SWM, and SHA has committed to meet or exceed all requirements. Similar to the ESCs, it is expected that the locations for SWM are selected with consideration of minimizing removal of mature trees. For example, there is concern about the loss of forest for the SWM pond around Station 756. In general, EPA supports the use of smaller, shaded SWM detention facilities, or underground detention to reduce thermal impact. Preservation of the forest resource within the area designated for a SWM pond and evaluation of underground SWM is strongly encouraged by EPA. These measures would further advance the goal of maintaining the water quality in the Paint Branch watershed.

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Additional Comments

The FEIS (Chapter II, Affected Environment) states that nearly all water supply in the area is public served by WSSC's reservoirs. It is our understanding that private wells are in use (for instance, at Cashell Estates). The FEIS references some displaced private wells (Chapter IV Environmental Consequences, 2a and Table IV-50). All ground water well locations, displaced or within approximately 1000 feet of the alignment, should be identified, and a plan should be made to address water supply should wells be affected by construction, or operation, of the highway.

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EPA expects that SHA and their contractors will employ Best Management Practices during construction, including methods to minimize and mitigate for construction emissions, noise, vibration, etc. For example, ultra-low sulfur fuels, particulate filters, and electrical generators should be considered to reduce environmental and community disruption where feasible and appropriate.

26

EPA has strongly encouraged development of the mass transit component of this multi-modal project, and regional mass transit, as part of the coordinated effort needed for improvement in traffic congestion. The Agency recognizes the Maryland Department of Transportation's stated commitment to initiate a transit study with \$20 million designated for that purpose. EPA appreciates being informed of the study's progress, and looks forward to seeing incorporation of innovative, state-of-the art mass transit designs, maximizing public use, convenience and benefit. It is hoped that implementation of transit service will be coordinated with, and coincide with, the ICC opening to traffic. Our comments on the DEIS stated that efforts for traffic relief would necessitate improvements in an array of areas, including mass transit. Investment in mass transit, on any new highway infrastructure, as well as dedicated right-of-way available in the DC area, needs to be expedited as one facet of needed changes.

27

#	Comment	Response
Environmental Protection Agency (EPA)		
1	The No Build Alternative clearly has the least environmental harm.	<p>The Lead Agencies acknowledge EPA's position that the No-Action alternative would have the least environmental harm. However, the No-Action Alternative would not meet the project's purpose and need, on which the EPA and other agencies concurred in 2003. As described in Chapter VII.C of the FEIS, the No-Action Alternative would result in decreased mobility and increased congestion by the 2030 design year of the project. Therefore, it would not meet the study's needs of increasing community mobility and facilitating the movement of people and goods to and from economic centers. In addition, the No-Action Alternative would not provide the opportunity for Environmental Stewardship, which is also a component of the purpose and need. The No-Action Alternative would not improve homeland security or reduce mobility, which would be detrimental in terms of emergency response.</p>

#	Comment	Response
Environmental Protection Agency (EPA)		
2	<p>Our comment letter of February 25, 2005 on the DEIS discussed the EPA's issues and concerns on the proposed highway. We contend that both build alternatives (Corridor 1 and Corridor 2) would have significant adverse environmental impacts. The preferred alternative of the transportation agencies, Corridor 1, will impact important natural resources, particularly in Montgomery County's stream valley parks, including wetland complexes in Northwest Branch and tributary streams to Paint Branch. Our letter of February 25 stated that construction and operation of a highway through a complex of upland wetland and riparian forest could significantly diminish the structure, function and value of the residual forest.</p>	<p>As summarized in Chapter VII.C.3.1 of the FEIS, the study has concluded that, when avoidance and minimization measures, mitigation commitments, and environmental stewardship enhancements are factored into the decision, neither build alternative is clearly better in terms of impacts to the natural environment. The Lead Agencies base this conclusion on the fact that many of the most valuable resources along Corridor 1 are clustered within large riparian corridors (as opposed to smaller, more numerous and less concentrated areas along Corridor 2). The size of these corridors along Corridor 1 and the concentration of resources would substantially increase the effectiveness of avoidance and minimization measures, particularly the long bridges proposed at many of the major drainage crossings.</p> <p>Although avoidance and minimization measures have been included along the Corridor 2 Alternative to the extent possible, extensive bridging to avoid impacts is less practicable. Furthermore, the Corridor 1 Alternative avoids the Rocky Gorge Watershed and, consequently, the Rocky Gorge Reservoir, which is a significant natural resource in the study area.</p> <p>The Lead Agencies acknowledge the potential impacts to forests and have identified reforestation sites to mitigate for these impacts. Coordination with DNR and M-NCPPC will continue during design and construction to ensure that adequate reforestation acreage has been located in accordance with the compensatory mitigation requirements of the Maryland Reforestation Law.</p>

#	Comment	Response
Environmental Protection Agency (EPA)		
3	<p>EPA acknowledges the selection of Option C in Rock Creek and Option A in Northwest Branch as environmental impact avoidance and minimization measures, and supports the two options, as they represent significant savings to parkland and interior forest in Rock Creek and aquatic resources in Northwest Branch. Resources along the alignment will still be degraded and fragmented, but it is expected that minimization, mitigation, enhancement and preservation efforts will help to sustain environmental conditions for the regional area. The aquatic and parkland mitigation package, environmental stewardship projects, and the commitment to environmentally sensitive design and construction methods have addressed many of the concerns in our DEIS comment letter. The development of these plans, and follow through on all commitments made to the public regulatory agencies, will need to be carefully observed and tracked to assure compliance.</p>	<p>The Lead Agencies acknowledge EPA position that minimization, mitigation, enhancement and preservation efforts will help to sustain environmental conditions for the regional area and that the aquatic and parkland mitigation package, environmental stewardship projects, and the commitment to environmentally sensitive design and construction methods have addressed many of the concerns in EPA's DEIS comment letter. The development of these plans, and follow through on all commitments made to the public regulatory agencies will be assured through adherence to the environmental oversight MOU between the Lead Agencies and the regulatory agencies.</p>
4	<p>A Memorandum of Understanding (MOU) between the transportation agencies and participating Federal and State resource agencies is being drafted to assure an oversight role for the resource agencies and transparency in the level of accomplishment of all commitments made.</p>	<p>There is a general agreement on the draft Memorandum of Understanding (MOU) among IAWG and P+1 group which establishes and maintains the partnership between the Lead Agencies, resource agencies, and permitting agencies along with county agencies to assure that the avoidance, minimization, mitigation, and environmental stewardship efforts committed to throughout the NEPA process, are realized through design and construction of the ICC. The MOU will be finalized immediately following permit decisions (should ACOE and MDE issues permits). In addition to the MOU, an independent environmental monitor would also be employed to ensure that environmental commitments, as well as permit conditions are adhered to during the construction stage of the project. The independent environmental monitor will be an outside consultant from a firm with no affiliation with the design, permitting or construction aspects of the ICC project.</p>

#	Comment	Response
Environmental Protection Agency (EPA)		
5	<p>The list of commitments, the tracking procedures, the environmental management plan, and the use of environmental monitors, will be included in the FHWA's Record of Decision (if a build alternative is adopted) and are crucial commitments to EPA and the public.</p>	<p>Environmental Oversight is discussed in the ROD. Specific project commitments are listed in Attachment E of the ROD. Summary List of Project Commitments, numbers 78, 79 and 81 provide for tracking commitments using established procedures, implementation of the Environmental Management Plan and the use of environmental monitor.</p>
6	<p>Overall, the process has been effective in expediting the NEPA/Section 404 study and providing adequate data for analysis. Though any study of this magnitude, and controversial nature, could benefit from additional time and work, the scope of the study of environmental resources and impacts is believed to be appropriate for the NEPA/Section 404 process. While environmental resource agencies may prefer protection of all resources, evaluation of a major public works project requires assessment of resource values and functions, and prioritization of resources in order to accommodate any proposed build alternative.</p>	<p>Indeed, it was only through this process that we have been able to successfully complete the NEPA portion of this study. The Lead agencies also acknowledge that the EPA feels that the overall adequacy of the Final EIS exceeds that of the DEIS due to the additional supplemental studies and environmental commitments that occurred following the Draft EIS. It is due to the interagency cooperation and input from the IAWG and P+1 groups that we were able to identify the need for additional studies and ultimately to incorporate the findings into the Final EIS. Therefore, the Final EIS was able to address all comments on the Draft EIS provided by the commenters.</p>

#	Comment	Response
Environmental Protection Agency (EPA)		
7	<p>The agencies cooperated in the review of a preliminary copy of the FEIS, and the FEIS signed in early January. The public availability and review process, originally closing in late February, was extended three times (to late March, early April, then to late April) primarily as a result of the need to circulate a correction of an error in the FEIS appendix and later, the release of the PM2.5 air quality analysis. While these extensions are laudable, we believe their incremental nature (and announcement at the close of the comment periods) may have reduced their benefit to the public.</p>	<p>The Lead Agencies extended the review period for the FEIS to 90 days, three times the required review period. During the review period, a total of nearly 800 pieces of correspondence were received from citizens, elected officials (federal, state, and local), and agencies. This correspondence amounted to over 3,000 individual comments. Due to the shear volume and detail provided therein indicated the review period was sufficient.</p>
8	<p>A comprehensive list of sites and conceptual plans was presented. Back-up sites have also been included, in case design or property ownership impediments arise; there will be the ability to incorporate new sites, if there is agreement by the interagency group that an opportunity has been inadvertently overlooked and would provide superior benefit to the local area.</p>	<p>In the event that any of the proposed Environmental Stewardship sites are ultimately not able to be used for the purpose identified in the FEIS, the Lead Agencies will pursue one or more of the back-up sites to ensure that similar benefits will be realized from the ES measures. Any such use of back-up sites will be coordinated with the IAWG agencies as described in the ROD. This is stated in Attachment E, Summary List of Project Commitments, number 137.</p>

#	Comment	Response
Environmental Protection Agency (EPA)		
9	<p>EPA has requested that the commitment list in the ROD specify some of the mitigation and compensation believed not to be clearly identified (or out-dated) in the FEIS tables. EPA has suggested that mitigation monitoring for up to 10 years, particularly for forested wetlands (the FEIS suggestion of monitoring for up to five years, p.IV-245, was questioned by several agencies, including EPA, earlier).</p>	<p>Based on post-FEIS coordination, the Army Corps of Engineers has indicated that the wetland mitigation projects shall be monitored in accordance with the most recent guidelines developed by the Corps and MDE (Attachment E, Summary List of Project Commitments, number 139). The Corps' draft permit conditions related to post-construction monitoring also call for a minimum of five years of monitoring with an extension for up to ten years if problems with the site are noted in the initial five year period. The Lead Agencies have agreed to comply with this condition. If mitigation were to be required for a ten year period regardless of any site deficiencies, this would be done on an interval of every other year i.e., the site would be monitored five times within the ten year period. Concerns that remain for monitoring of all sites for ten years include the loss of institutional memory about the specific site characteristics with such an extended monitoring requirement. The Lead Agencies have not been able to review any studies that prove this assumption.</p>

#	Comment	Response
Environmental Protection Agency (EPA)		
10	<p>Documentation of wetland impacts was considered unclear in the DEIS. Language in the FEIS has clarified the changes in wetland impacts from the previous study in 1996 which did not include resources on the Konterra property. The FEIS also discussed reductions in wetland impacts on Corridor 1 since the DEIS was distributed. Wetland impacts have been reduced from 67 acres in the DEIS, to 48 acres in the FEIS, and stream (perennial, intermittent and ephemeral) impacts were reduced from an upper estimate of 58,200 linear feet reported in the DEIS to about 44,000 linear feet in the FEIS.</p>	<p>The Lead Agencies acknowledge EPA's opinion that the Final EIS clarifies the documentation of wetland impacts that was presented in the Draft EIS.</p>
11	<p>It is evident that progressive deterioration of the reservoir capacity and water quality is currently occurring. Though Corridor 2 may have accelerated water quality impacts as stated in the report, secondary development predicted from Corridor 1 will also impacts the Rocky Gorge watershed. The concerns evaluated in the document associated with secondary development related to Corridor 2 are likely to be only somewhat less, or an issue later in time, if Corridor 1 is built. It is clear that selection of Corridor 1 reduces direct risk to the reservoir from hazardous spills. Though the report indicates that use of MD 28/MD 198 by transport trucks still may pose some risk, it is anticipated that some of the traffic will move to the ICC, if it is constructed. EPA appreciates the effort SHA is making to reduce the possibility of a hazardous spill on the section of US 29 crossing the reservoir, by prohibiting vehicles that are carrying hazardous materials from using the road.</p>	<p>As stated in the ROD, only the Corridor 2 Alternative would have direct and secondary wetland, stream and floodplain impacts in the Rocky Gorge watershed and direct and secondary impacts to the Rocky Gorge reservoir, which supplies the drinking water of more than a half million homes. The local agency charged with protecting the public drinking water supply indicated that the reservoir would be seriously threatened by Corridor 2. Although these impacts are small, they pose a risk of catastrophic harm to the Rocky Gorge reservoir. The FHWA considered this risk as a factor weighing in favor of the Selected Alternative (Corridor 1).</p>

#	Comment	Response
Environmental Protection Agency (EPA)		
12	<p>Many issues stated to be of concern in our review of the DEIS have been discussed, and recommendations given, by the IAWG. These include: culvert and bridge dimensions, use of retaining walls to minimize forest and stream encroachment, wildlife passage (for small mammal, amphibian, reptile and deer); deer, reptile and amphibian exclusion fencing; burying or covering rip rap to allow deer crossing, environmentally sensitive construction procedures (especially in areas of temporary wetland disturbance), redundant sediment and erosion controls, placement and style of storm water management facilities, replacement of vernal pools near pools disturbed or removed by construction, phasing construction to limit the amount, and length of time, stripped land is without stabilizing vegetation, etc. These commitments and requirements should be included in State and Federal permit conditions, regarding most or all of these issues.</p>	<p>With regard to these recommendations, you requested that the commitments and requirements agreed to among the Inter Agency Working Group should be included in the State and Federal Special Permit Conditions. To the extent possible, the Lead Agencies have honored this request and the regulatory agencies have included many of the agreed-upon conditions discussed as part of the IAWG. Furthermore, the EPA has had the opportunity to participate in the development of the permit conditions and to provide the Lead Agencies with comments that have since been incorporated into Attachment E, Summary List of Project Commitments.</p>
13	<p>EPA understands that design and construction decisions are finalized by the design-build team. We expect clear direction given to the team that commitments have been made for environmental impact minimization, environmentally sensitive design, construction and operation. The design-build team should be aware that any opportunity to further avoid and minimize environmental impacts is encouraged and should be implemented. EPA has asked for continued interagency engagement through the design, construction and post-construction monitoring for the ICC, and for its mitigation and ES projects. We expect that the finalized list of commitments for the project will be approved by the interagency team and will be included in the ROD.</p>	<p>The Lead Agencies agree and the design build team will be made aware of all commitments made in the ROD and Special Permit Conditions when issued and this will be a determining factor in the selection process. In addition, the design-build team will be encouraged to implement refinements that would avoid or minimize impacts to environmental resources. The Lead Agencies will implement an incentive/disincentive program subject to agency review. The following commitment has been added to Attachment E, Summary List of Project Commitments, number 102: "An incentive program will be implemented during construction to promote the further reduction of resource impacts (including wetlands, streams, and forest)." Performance Evaluations are also being drafted for the design/build contract. These and other environmental oversight plans are discussed in the ROD.</p>

#	Comment	Response
Environmental Protection Agency (EPA)		
14	An MOU has been drafted to assure continued involvement of the interagency team, provide for high levels of monitoring and oversight, transparency of commitments made and success in accomplishing them. Agencies will be able to track progress on all commitments.	A draft environmental oversight MOU has been developed to ensure this interagency engagement and to define the role of the EPA and other agencies during these stages of the project. The MOU will be signed prior to the start of final design engineering.
15	Bridge and culvert dimensions have been a particular concern to the IAWG. Bridges are shown at nine locations, and it is expected that no reduction to the commitments will be made, unless there is the agreement by the interagency team.	This comment is acknowledged by the Lead Agencies and an example of this occurring is the recent agency agreement at the February 15 th , 2006 Inter-Agency Working Group meeting regarding design changes at Station 174 (see response for number 16 below). In addition, this type of coordination will continue throughout the design and construction phases to discuss refinements in accordance with the MOU.
16	EPA supports the position of Montgomery County and encourages consideration of resource impact avoidance and minimization at Station 174 through bridging, where a culvert is shown in the FEIS.	Based on the Inter-Agency Working Group discussion, it was agreed that: Two culverts will be provided at Station 174. One will accommodate the base flow of the stream. The other will be a culvert situated in the floodplain to accommodate flood flows, deer passage, and pedestrian passage. The pedestrian culvert will be lighted to facilitate pedestrian passage (this requirement will be reconsidered if the internal dimensions are increased beyond 12-foot by 12-foot). The maximum length of the pedestrian culvert will be 195 feet. The ICC will be designed and constructed to maintain groundwater seepage at Station 174 and to establish vernal pools in the vicinity. This commitment has been added to Attachment E, Summary List of Project Commitments, as number 25.
17	It has been the position of the EPA that the park function for the community, and stream and seep habitat, would be best maintained with a bridge. As it appears that the County has agreed to a dual culvert system, we expect that all design measures will be taken to assure park conductivity for the public and hydraulic conductivity to preserve seeps and wetlands south of the alignment.	

#	Comment	Response
Environmental Protection Agency (EPA)		
18	As a general standard, culverts sized to allow a 1.0 ratio (opening area to length) have been considered adequate for deer passage.	Based on post-FEIS agency coordination, all culvert lengths designed for deer passage will be as short as possible, but in no case shall exceed 280 feet. Because these culverts are being considered specifically to accommodate deer passage, the interagency team has agreed that the interior dimensions will be 12-foot by 12-foot or larger. If located in a floodplain, they shall be set at an elevation that will result in no more than a two-foot thickness of natural sediment deposition to allow for a minimum clearance of 10 feet. There shall be no riprap in either the bottom of the culvert or on the approaches to the culvert that would make the culvert inaccessible by deer, unless the riprap was buried. The deer cells will not be used to convey the base flow of the stream. The deer can traverse through the dry cell of a two-cell culvert, provided it meets the above specifications. If other than a rectangular shape is used, the cross section of the alternative-shaped culvert shall be large enough that a 12-foot by 12-foot square could fit inside it.
19	Though it has been shown that deer will use smaller passages, there has been no study to determine that the statistical level of use may be. The interagency team has agreed that culvert size as small as 12' x 12' (allowing an opening of 12 x 10' with a 12' sediment bottom) should not greatly compromise use for passage. Any reduction in culvert length or enlargement of an opening dimension could improve function.	Based on post-FEIS agency coordination, all culvert lengths designed for deer passage will be as short as possible, but in no case shall exceed 280 feet. Because these culverts are being considered specifically to accommodate deer passage, the interagency team has agreed that the interior dimensions will be 12-foot by 12-foot or larger. If located in a floodplain, they shall be set at an elevation that will result in no more than a two-foot thickness of natural sediment deposition to allow for a minimum clearance of 10 feet. There shall be no riprap in either the bottom of the culvert or on the approaches to the culvert that would make the culvert inaccessible by deer, unless the riprap was buried. The deer cells will not be used to convey the base flow of the stream. The deer can traverse through the dry cell of a two-cell culvert, provided it meets the above specifications. If other than a rectangular shape is used, the cross section of the alternative-shaped culvert shall be large enough that a 12-foot by 12-foot square could fit inside it.
20	Accommodation for amphibian and reptile passage, possibly on the edges of a wet cell, to enhance shelter and moisture without strong flow, should be investigated and designed where appropriate. (Alternative design to accommodate amphibians may include establishing vernal pools on either side of the road, and preventing the ability and need to cross over the road.)	Efforts to consider amphibian and reptile passage through culverts will include placing culvert bottom elevations at approximately floodplain elevations in order to maintain moist substrates. In addition, Commitment 51 has been added to Attachment E, Summary List of Project Commitments, as follows: SHA will conduct additional literature search for appropriate structures for reptile and amphibian passage. Any findings will be coordinated with the Inter-Agency Working Group.

#	Comment	Response
Environmental Protection Agency (EPA)		
21	<p>It is the understanding of the EPA that redundant, state-of-the-art erosion and sediment controls (ESCs) will be in place during construction in the most environmentally sensitive areas (expected to be the Special Protection Areas and/or and Use III waters). Placement of controls in all areas needs to be made with consideration to potential re-use as vernal pools and to minimize impact to high quality forest. Where alternate locations to reduce intrusion into high quality forest are possible, they should be pursued. For instance, we are concerned about the location of ESC in mature forest around Station 173-176, south of the alignment; placement to the north may be preferable. Coordination with park stewards is recommended.</p>	<p>Please see above response numbers 16 and 17 regarding the IAWG agreement on project design at Station 174. As stated, "The ICC will be designed and constructed to maintain groundwater seepage at Station 174 and to establish vernal pools in the vicinity." In addition, the following commitment number 104 has been added to Attachment E, Summary List of Project Commitments: "In coordination with M-NCPPC, areas may be identified on parkland and in close proximity to the ROW that will not require additional forest clearing. Design and construction of vernal pools will be approved by M-NCPPC."</p>
22	<p>Our technical comments on the DEIS requested detailed description of stormwater management (SWM). It is not apparent that a discussion of possible failures or limits of effectiveness of SWM is highlighted in the FEIS, though the document does identify proposed SWM methods. EPA has been assured that the commitment list in the ROD will include clarification and more details of SWM design and placement.</p>	<p>Stormwater management (SWM) limitations are described on page IV-168-169 of the Final EIS, and detailed descriptions of Best Management Practices contemplated on the ICC are found throughout the Final EIS and on pages IV-169-172 in particular. As EPA stated, further clarification and more details of SWM design and placement are included in ROD under the stormwater management category (Attachment E, Summary List of Project Commitments, numbers 28 through 46, 86, 94 through 97, and 115).</p>
23	<p>It is expected that all waters in the Special Protection Areas and watersheds classified as Use III-Natural Trout Waters will be afforded the SWM design most protective of water quality (including temperature). It is also expected that SWM design will be implemented to ensure the stream channels of the Northwest Branch are protected from further erosion; other measures, such as mitigation projects, will go further to enhance channel stabilization. MDE will oversee implementation of effective SWM, and SHA has committed to meet or exceed all requirements.</p>	<p>EPA's comments are acknowledged and commitment #3 under SWM in Attachment E, Summary List of Project Commitments, and read as follows: Two of the subwatersheds crossed by the ICC are within Montgomery County Special Protection Areas (Under Rock Creek Special Protection Area - north of Muncaster Mill Road and Upper Paint Branch Special Protection Area - north of Fairland Road). Construction of the ICC will comply with the Special Protection Area SWM requirements in those subwatersheds where applicable. In Use III and IV watersheds, twelve-hour Cpv will also be provided in underground pipes or dry surface ponds. These commitments are discussed in the ROD.</p>

#	Comment	Response
Environmental Protection Agency (EPA)		
24	<p>Similar to ESCs, it is expected that the locations for SWM are selected with consideration of minimizing removal of mature trees. For example, there is concern about the loss of forest for the SWM pond around Station 756. In general, EPA supports the use of smaller shaded SWM detention facilities, or underground detention to reduce thermal impact. Preservation of the forest resource within the area designated for a SWM pond and evaluation of underground SWM is strongly encouraged by EPA. These measures would further advance the goal of maintaining the water quality in the Paint Branch watershed.</p>	<p>Layout of SWM designs will be performed with minimizing tree loss in mind. Although there will likely be trees lost because of SWM grading requirements, those losses should be minimized through efforts to reduce the clearing limits such as contractor incentives in order to avoid impacting trees unnecessarily. At Station 756, the Lead Agencies have committed to placing permanent SWM facilities underground. Tree loss at Station 756 may be incurred to construct ESC devices, but, again, contractor incentives should keep that to a minimum.</p>
25	<p>The FEIS (Chapter II, Affected Environment) states the nearly all water supply in the area is publicly served by WSSC's reservoirs. It is our understanding that private wells are in use (for instance Cashell Estates). The FEIS references some displaced private wells (Chapter IV, Environmental Consequences, 2a and Table IV-50). All ground water wells locations, displaced or within approximately 1000 feet of the alignment, should be identified, and a plan should be made to address water supply should wells be affected by construction, or operation, of the highway.</p>	<p>The comment is acknowledged and the following sentence was added to Attachment E, Summary List of Project Commitments (commitment number 141) where the ICC will directly impact private wells, they will be properly abandoned and closed in accordance with Maryland Department of the Environment (MDE) regulations. Potential indirect impacts to private wells are mitigated or remediated on a case by case basis. The Lead Agencies take each case seriously and, when determined to be the result of the highway project, may consider measures such as replacing the well, water treatment or water supply.</p>
26	<p>EPA expects the SHA and their contractors will employ Best Management Practices during construction, including methods to minimize and mitigate for construction emissions, noise, vibration, etc. For example, ultra-low sulfur fuels, particulate filters, and electrical generators should be considered to reduce environmental and community disruption where feasible and appropriate.</p>	<p>Measures to limit emissions and noise from construction equipment will be placed on the contractors. We have included this in the Attachment E, Summary List of Project Commitments (commitment numbers 109 and 110).</p>

#	Comment	Response
Environmental Protection Agency (EPA)		
27	<p>EPA has strongly encouraged development of the mass transit component of this multimodal project, and regional mass transit, as part of the coordinated effort needed for improvement in traffic congestion. The Agency recognizes the Maryland Department of Transportation's stated commitment to initiate a transit study with \$20 million designated for that purpose. EPA appreciates being informed of the study's progress, and looks forward to seeing incorporation of innovative, state-of-the art mass transit designs, maximizing public use, convenience and benefit. It is hoped that implementation of transit service will be coordinated with, and coincide with, the ICC opening to traffic. Our comments on the DEIS stated that efforts for traffic relief would necessitate improvements in an array of areas, including mass transit. Investment in mass transit, on any new highway infrastructure, as well as dedicated right-of-way available in the DC area, needs to be expedited as one facet of needed changes.</p>	<p>The Lead Agencies have committed to more than just the Service Planning study. The Lead Agencies have committed to operating Express Bus service along the ICC. The exact service characteristics (i.e., headways, number of routes and buses, etc.) will be determined through the additional study. The \$20 million dollar commitment is to fund the bus and supporting service once the ICC is constructed. The Lead Agencies look forward to sharing information and monitoring the conduct of the study with EPA through the continuing Interagency coordination. The transit component of the Selected Alternative is described in the ROD.</p>



Robert L. Ehrlich, Jr., Governor

Michael S. Steele, Lt. Governor

C. Ronald Franks, Secretary

March 23, 2006

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Dear Messrs. Mitchell and Castellanos:

The Maryland Department of Natural Resources (DNR) continues its involvement in the interagency coordination and review of the Intercounty Connector (ICC) from I-270 to U.S. 1, Montgomery and Prince George's Counties, Project No. AT376B11. At this time, we wish to acknowledge and confirm our completed review of the Final Environmental Impact Statement/Final Section 4(f) Evaluation (FEIS) dated January 3, 2006.

A broad coverage of each of the major natural resource review subjects is documented within the FEIS document. Additional details are provided in the appendices of the document. Through our participation in the interagency review process, each subject has been discussed, analyzed, and reviewed. Further information on the Department's natural resource considerations and aspects of our environmental review can be found in the Department's letter, dated February 15, 2005, commenting on the Draft Environmental Impact Statement for the Project. Much of our natural resource coordination on specific issues was conducted during field meetings and interagency coordination meetings. Throughout the process, the Department has specifically advocated that careful consideration be given to the important and sensitive major natural resource categories found within the project study area, including several State rare, threatened and endangered species; fisheries and other aquatic resources, especially the Paint Branch wild brown trout population; forests, forest interior areas, and other terrestrial habitats; nontidal wetlands and vernal pools; Green Infrastructure hubs and corridors; and other riparian corridors. The multiple major north-south stream valley corridors dominating the project study area, many of which are protected as parklands, have been a primary focus of the review.

Staff members from several units within the Department continue to participate in the review of various details of the project planning. These aspects include, but are not necessarily limited to: further fine tuning of natural resource impact avoidance and minimization, further planning details for compensatory wetlands and waterways mitigation, forest resource mitigation, environmental stewardship projects, environmental monitoring and inspection, coordination of further environmental input into any future detailed design and construction activities associated with the project, and Scenic and Wild River Program

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Mcsrs. Mitchell and Castellanos

March 23, 2006

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considerations for the affected streams and tributaries. The Department believes that continued coordination is very important as planning for large projects inevitably offers important opportunities to fine tune natural resource protection measures throughout the planning process and into actual construction of those projects receiving authorization. The Department has staff availability dedicated for regularly scheduled future interagency meetings as well as related field meetings associated with monitoring and assessment. These activities in turn will assure that planning efforts optimize feasible avoidance and minimization of natural resource impacts.

1

It is important for the Department to acknowledge in these comments that its role in the interagency process is to encourage and inspire the project team and other agencies to carefully consider natural resource concerns in all aspects of project planning, provide technical data and recommendations wherever appropriate, provide the requirements and review for forest mitigation and use of any DNR managed public lands, and assure that project considerations acknowledge and are consistent with various established environmental review policies and standards. Natural resource aspects include both specific natural resource elements such as species of interest and their habitat, landscape based approaches of ecosystem management, watershed planning, and Green Infrastructure. The study team will determine final decisions on proposed project aspects after consideration of all technical input from a variety of disciplines, only one of which is natural resource management. Project proposals are reviewed by the permitting agencies for all activities under their jurisdiction and considered for authorization. Decisions made for the project, with consideration of all

applicable disciplines, will sometimes result in carefully analyzed compromises. We can confirm through our participation that natural resource protection has been carefully considered and incorporated into the decision process by the project in all natural resource aspects that the Department advocated. As the Department has acknowledged in previous comments, construction of large-scale projects will inevitably involve some degree of risk of natural resource impacts. Certain types of impacts are unavoidable under a construction alternative, as recognized by the FEIS. It has been the Department's focus to review and comment on such aspects with the best available information. Other natural resource agencies and the project study team have given thorough attention to analyzing such considerations.

2

A Memorandum of Understanding (MOU) is being drafted by the project for the purpose of documenting and formalizing interagency coordination of future environmental considerations in the planning of the project, environmental monitoring, and construction of any authorized aspects of the project. The Department intends to fully participate and cooperate within the guidelines of the MOU with the intention of maximizing the inclusion of natural resource considerations for the project.

3

The Department had several minor editing and informational comments on the FEIS document. These comments have been presented, as they were identified, directly to project planning staff to allow for their early consideration for the Record of Decision and future interagency coordination. The Department has no objections to the presented natural resources information and no major editing flaws to resolve.

4

The Department continues to advocate the importance of public input in the study process, especially relating to natural resource issues. Department staff will continue to be available to help clarify or discuss natural resources issues that are brought up through the public comment phases of the project. Public input on natural resource issues will continue to be important in further detailed design planning and any authorized construction. The Department will be available to help optimize such coordination.

Messrs. Mitchell and Castellanos
March 23, 2006
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In summary, the Department has actively participated and will continue to actively participate in the planning process of this project. We recognize and have advocated the many important natural resource components within the study area. We acknowledge that these natural resource concerns have been embraced, further explored where necessary, and thoroughly considered by the project planning team. It is critically important for the project team to continue consideration of these natural resource concerns and fine-tune the optimization of natural resource protection, as feasible, through all future stages of the project. We are available at any time to help clarify the specifics of natural resource issues to the study team as they make project decisions during further planning.

If you have any questions concerning these comments, you may contact me at 410-260-8331.

Sincerely,

A handwritten signature in black ink that reads "Ray C. Dintaman, Jr." with a stylized flourish at the end.

Ray C. Dintaman, Jr., Director
Environmental Review Unit

Maryland Department of Natural Resources (DNR)

1	<p>Staff members from several units within the Department continue to participate in the review of various details of the project planning. These aspects include, but are not necessarily limited to: further fine tuning of natural resource impact avoidance and minimization, further planning details for compensatory wetlands and waterways mitigation, forest resource mitigation, environmental stewardship projects, environmental monitoring and inspection, coordination of further environmental input into any future detailed design and construction activities associated with the project, and Scenic and Wild River Program considerations for the affected streams and tributaries. The Department believes that continued coordination is very important as planning for large projects inevitably offers important opportunities to fine tune natural resource protection measures throughout the planning process and into actual construction of those projects receiving authorization. <i>[Comment Continued on Next Page]</i></p>	<p>The Lead Agencies recognizes the Maryland Department of Natural Resource's (DNR's) active participation and guidance in each of the major natural resource review subjects that were documented in the Final EIS. We acknowledge DNR's request to continue to participate in the review of various details of project planning, including but not limited to: further refinement of natural resource impact avoidance and minimization; further planning details for compensatory wetlands and waterways mitigation; forest resource mitigation; environmental stewardship; environmental monitoring and inspection; coordination of further environmental input into any future detailed design and construction activities, and Scenic and Wild River considerations.</p>
	<p>The Department has staff availability dedicated for regularly scheduled future interagency meetings as well as related field meetings associated with monitoring and assessment. These activities in turn will assure that planning efforts optimize feasible avoidance and minimization of natural resource impacts.</p>	<p>We agree that continued coordination is always vital for large transportation projects in the planning stages as well as those projects phasing into actual construction and receiving authorization.</p> <p>The Lead Agencies acknowledge that DNR has staff available and dedicated to participate in regularly scheduled future interagency meetings as well as related field meetings associated with monitoring and assessment. Through the environmental oversight MOU process, as described below in Response No. 3, the DNR will have an opportunity to participate in the ongoing coordination of the project including any additional planning efforts as well as through post-construction.</p>

Maryland Department of Natural Resources (DNR)

2	<p>We can confirm through our participation that natural resource protection has been carefully considered and incorporated into the decision process by the project in all natural resource aspects that the Department advocated. As the Department has acknowledged in previous comments, construction of large-scale projects will inevitably involve some degree of risk of natural resource impacts. Certain types of impacts are unavoidable under a construction alternative, as recognized by the FEIS.</p>	<p>The Lead Agencies appreciate DNR's commitment to assuring the ICC project will optimize feasible avoidance and minimization of natural resource impacts. Your staff participation in the Inter-Agency Working Group process has been valuable in this regard including recent contributions in the development of Attachment E, Summary List of Project Commitments, to be carried into design and construction of the ICC.</p>
3	<p>A Memorandum of Understanding (MOU) is being drafted by the project team for the purpose of documenting and formalizing interagency coordination of future environmental considerations in the planning of the project, environmental monitoring, and construction of any authorized aspects of the project. The Department intends to fully participate and cooperate within the guidelines of the MOU with the intention of maximizing the inclusion of natural resource considerations for the project.</p>	<p>The environmental oversight Memorandum of Understanding (MOU) is being finalized for agency signature and will ensure coordination of future environmental considerations in the planning, design, construction and post-construction of any authorized aspects of the project including environmental monitoring. We appreciate that DNR fully intends to participate and cooperate within the guidelines of the MOU with the intention of maximizing the inclusion of natural resource considerations.</p>
4	<p>The Department had several minor editing and informational comments on the FEIS document. These comments have been presented, as they were identified, directly to project planning staff to allow for their early consideration for the Record of Decision and future interagency coordination. The Department has no objections to the presented natural resources information and no major editing flaws to resolve.</p>	<p>The Lead Agencies have recently received comments provided by DNR which helped clarify several Final EIS and post-FEIS commitments and concerns of your agency. These comments have been addressed by the Project Planning Team and will be included in the Record of Decision.</p>



Maryland Department of Planning

Robert L. Ehrlich, Jr.
Governor
Michael S. Steele
Lt. Governor

Audrey E. Scott
Secretary
Florence E. Burian
Deputy Secretary

March 23, 2006

Mr. Raja Veeramachaneni
Director, Office of Planning and Preliminary Engineering
State Highway Administration
707 N. Calvert Street
Baltimore, MD 21202

Post-It® Fax Note	7671	Date	3-24-06	# of pages	15
M. Raja Veeramachaneni		From	Bob Rosenbush		
Co./Dept.	SHA	Co.	MDP		
Phone #		Phone #	410-767-4480		
Fax #	410-209-5014	Fax #			

STATE CLEARINGHOUSE SUMMARY OF FINDINGS

State Application Identifier: MD20060117-0048
Applicant: State Highway Administration (SHA)
Project Description: Final Environmental Impact Statement: Intercounty Connector (ICC) I-270 to US 1
 (see MD20041130-1312)
Project Location: Montgomery, and Prince George's Counties
Approving Authority: U.S. Department of Transportation

Dear Mr. Veeramachaneni:

In accordance with Presidential Executive Order 12372 and Code of Maryland Regulation 14.24.04, the State Clearinghouse has coordinated the intergovernmental review of the referenced project. This letter constitutes the summary of findings.

Project Location and Description -

The proposed Intercounty Connector (ICC) is intended to link existing and proposed development areas between the I-270 and I-95/US 1 corridors within central and eastern Montgomery County, and northwestern Prince George's County with a state-of-the art, multi-modal, managed lane, east-west highway that limits access and accommodates passenger and goods movement. The Final Environmental Impact Statement (FEIS) stated that three (3) alternatives were determined to warrant detailed study: No-Action, Corridor One, and Corridor Two Alternatives, including numerous alignment and interchange options. The FEIS stated that Corridor One has been identified as the preferred alternative.

Review comments were requested from the Maryland Departments of the Environment, State Police, Business and Economic Development, Natural Resources, Montgomery County, Prince George's County, Maryland-National Capital Park and Planning Commission in Montgomery, and Prince George's Counties, the Metropolitan Washington Council of Governments, the Cities of Bowie, Gaithersburg, Greenbelt, Laurel, and Rockville; the Towns of Garrett Park, Kensington, and Washington Grove, and the Maryland Department of Planning, including the Maryland Historical Trust. As of this date, the Maryland Department of the Environment, Prince George's County, the Maryland-National Capital Park and Planning Commission in Prince George's Counties, the Cities of Greenbelt, and Rockville; the Town of Kensington have not submitted comments. Any comments received will be forwarded. The City of Bowie had no comments.

State agencies:

The Maryland Historical Trust (the Trust) stated that their findings of consistency are contingent upon the Applicant taking the actions summarized below. The Trust determined that the project will entail ongoing coordination between SHA, the Trust, and other involved parties to fulfill the stipulations of its Memorandum of Agreement, executed to fulfill compliance with Section 106 of the National Historic Preservation Act of 1966, as amended.

1

The Maryland Department of State Police found this project to be consistent.

2

The Maryland Departments of Business and Economic Development, State Police, and Natural Resources, and the Maryland Department of Planning found this project to be consistent with their plans, programs, and objectives. This Department also found this project to be consistent with the policies contained in Executive Order 01.01.1992.27 (Maryland Economic Growth, Resource Protection, and Planning Act of 1992), Executive Order 01.01.1998.04 (Smart Growth and Neighborhood Conservation Policy).

3

This Department stated that the language in the third paragraph on page VII – 48 (in Volume 1) should be rewritten as: “On August 31, 2005, the Maryland Board of Public Works determined that the project serves to “Connect Priority Funding Areas,” and approved the exception for the Corridor 1 Alternative under the Maryland’s Smart Growth – Priority Funding Area Law, thereby permitting the State to provide State funding for the construction of the ICC.”

4

Local Government:

Montgomery County, and the Maryland-National Capital Park and Planning Commission in Montgomery County found this project to be generally consistent with their plans, programs, and objectives, but included these qualifying comments.

5

Montgomery County stated that Rock Creek Option A is preferred, rather than Rock Creek Option C, grade separation.

6

The Maryland-National Capital Park and Planning Commission in Montgomery County stated that qualifying comments have been included in the Final Environmental Impact Statement.

The City of Gaithersburg, and Laurel found this project to be consistent with their plans, programs, and objectives. The City of Gaithersburg found this project to also be consistent with the Economic Growth, Resource Protection, and Planning Visions (Planning Act of 1992), State Finance and Procurement Article 5-7B- Smart Growth and Neighborhood Conservation (Priority Funding Areas).

7

The Town of Garrett Park found this project to be generally consistent with their plans, programs, and objectives, but included these qualifying comments. The Town of Garrett Park stated that “we are located far enough away from the proposed sites to not be affected or certainly not in any substantive way.”

8

The Town of Washington Grove stated that the project is not consistent (i.e. the project raises problems concerning compatibility with the Town’s plans, programs, objectives, or Planning Act visions/policies). The Town of Washington Grove’s goals are to achieve peace and quiet. The Town of Washington Grove addressed the issues of: the determination of an adverse audible effect and, an adverse visual effect on the Town (i.e. the Town is on the National Register of Historic Places); the lack of information about the predictive model, and the parameters for the predictive model which were used by SHA to assert that there would be “no adverse auditory effect”; the definition of “impact” as it applies to a consideration of an adverse effect on the Town; the suitability of SHA’s Noise Barrier Policy to assess adverse effects on historic properties; and the protection of the Town’s “sense of place”, and its core community value. See the attached letter, report, photographs, and map

9

10

Mr. Raja Veeramachaneni
March 23, 2006
Page 3

Regional agencies:

The Metropolitan Washington Council of Governments found this project to be consistent with their plans, programs, and objectives.

11

Community groups:

Montgomery Preservation, Inc. (a private, non-profit historic preservation organization that works to further preservation efforts in Montgomery County...MPI) stated that sound walls are a necessity to protect the character of the Town of Washington Grove, an uniquely important historic community, from the negative noise impacts that would result from building the ICC. MPI affirmed that constructing sound walls is the right thing to do for the County's history, for the Town of Washington Grove's peace and quiet, and for the principles of environmental stewardship. MPI mentioned that Environmental Stewardship funds will be used to restore historic and cultural resources, and to undo previous environmental damage. MPI believes that the use of such funds would be appropriate to undo the previous environmental damage, in the form of noise, done to the Town of Washington Grove by the construction of I-370.

12

The State Clearinghouse would like to be kept informed of all decisions made in regard to this project. The Clearinghouse summary of findings is valid for a period of three (3) years from the date of this letter. If the proposed action has not taken place within that time period, information should be submitted to the Clearinghouse requesting a review update.

13

We appreciate your attention to the intergovernmental review process and look forward to continued cooperation. If you need assistance or have questions, contact the State Clearinghouse staff person noted above at 410-767-4490 or through e-mail at brosenbush@mdp.state.md.us. Thank you for your cooperation with the Maryland Intergovernmental Review and Coordination process.

Sincerely,



Linda C. Janey, J.D., Director
Maryland State Clearinghouse
for Intergovernmental Assistance

LCJ:BR

Enclosure(s)

cc: Robert Booher-WASHINGTON GROVE
Beverly Warfield - PGEO
G. Frederick Robinson - BOWIE
Joane Mueller - MDE
Beth Cole - MHT
William Ebare - MDSP
Tammy Edwards - DBED

Sidney Katz - GAITHERSBURG
Lynn Raufaste - KENSINGTON
John Compton - WASHINGTON GROVE
Ray Dintaman - DNR
Lisa Rother - MTGM
Jorge Valladares - MNCPPCM
Keith Hall - MNCPPCP

Carolyn Shawaker - GARRETT PARK
Wayne Goldstein - MPI
Judith Davis - GREENBELT
Paul Des Jardin - MWCOG
Craig Moe - LAUREL
Larry Giammo - ROCKVILLE

06-0048_CRR.CLS.doc

MD 20060117-0048

PI-FC-S-13

The Town of Washington Grove

Historic Preservation Commission

PO Box 216, Washington Grove, MD 20880-0216

Tel: (301) 926-2256 – Fax: (301) 926-0111

Mr. Bruce Grey
Assistant Director,
Office of Planning and Preliminary Engineering
Maryland State Highway Administration
707 North Calvert St
Baltimore, MD 21202

March 21, 2006

Note:

Please see “Record of Responses to Public Comments” for responses to this enclosure

Mr. Grey:

We have worked our way through the relevant portions of the FEIS released in January and re-examined your letter of August 23, 2005. We remain concerned that the issues you chose to address in your letter are only the issues narrowly defined in the SHA criteria, and those you chose not to address are the ones most pertinent to the determination of adverse effect as defined in the 106 process. We were hopeful that the SHPO would respond to our expressions of concern in some way, or even rise to its role as arbiter in this process to help reach a mutual understanding of the very real effects the proposed roadway will have on arguably the most significant historic resource affected by it. We were disappointed to learn in the FEIS documents that his sign-off was secured without any effort at contacting us. We were disappointed as well that there did not appear to have been any consideration at all given to our expressed concerns acknowledged in the FEIS, and thus we remain far from convinced that it will be anything other than detrimental to the Town's intrinsic goals.

The issues we request you address are elaborated below but in summary are:

1. The Town of Washington Grove is on the Register because of its uniquely defined sense of place.
2. CFR 800 iterates broader issues and standards than the two applied in your determination.
3. The roadway will indeed be visible from the historic area.
4. The sound study is incomplete and may not be an accurate predictor of future noise.
5. The Town is already suffering from the audible effects of the ICC.
6. The standards in the Barrier Policy are inappropriately crude for assessing adverse audible effects on a historic place.

1. As we clearly elaborated in the letter of May 30, 2005, Washington Grove was founded as an “oasis of tranquility” immersed in the natural world and divorced from the urban one. The original sharing of outdoor gatherings for Chautauqua performances and revival meetings has continued in regular present-day musical events staged in front of the Town Hall, around the Gazebo and moving from porch to porch. Its purpose was and remains intimately entwined with the sharing of that natural inside/outside relationship as a community core value. It is the reason we moved here, the reason we tolerate what most would consider substandard dwelling conditions, the reason it remains viable and the reason it retains any real property value. A reduction of that quality, reduces the viability of the community and its significance as a Historic Place. Unlike the other resources affected by the ICC, here it is that very sense of place that is at stake, not a structure or collection of structures. This is attested to by the fact that Montgomery County has designated the adjacent field a Legacy Open Space Property as a critical element in helping preserve the rural context of Washington Grove. And its placement on the Register attests to the fact that, contrary to your assertion, it clearly cannot be considered just a normal residential area.

2. The CFR 800.5 assessment scope is clearly broader than the narrow criteria you have chosen to define "impact". The latter criteria can perhaps be simplistically summarized as "can't see it very well right now and it won't be much noisier than it already is". The Act requires you in 800.5(a)(1) to consider an "adverse effect", as we have, "when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property... in a manner that would diminish the integrity of the property's location, ... setting, feeling or association." Specifically included in the list of examples are "introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features" Your interpretation of this broad requirement appears to be at the extreme of whether the community either "could not function" or would become ineligible for inclusion on the Register. The criteria narrowly defined as "impact" in the Noise Barrier Policy, though it may be appropriate for suburban developments, is inappropriate to equate with these broad descriptions indicated in the Act.

3. When we examined more specifically the two criteria chosen to measure adverse effect, we found them both to be based on studies of questionable accuracy. The first criterion is visual. It is asserted that the roadway will not be seen due to an intervening hedgerow. As witnessed by Secretary Scott and Wesley Mitchell during their recent visit, the present view from Washington Grove through this hedgerow clearly reveals the future exposure of the ICC interchange, in particular the portion revised subsequent to the initial visual study that places one ramp elevated 35' above the existing grade. In addition, as shown in the plan provided those same visitors, this hedgerow will shortly be reduced in width to roughly 30' by an approved development, making it even more transparent. It will clearly not prevent the roadway itself from being seen and will do nothing to block the proposed lighting. Thus the road will in fact have an adverse visual effect on the Town.

4. The second criterion is auditory. The attached report was commissioned by the Town to help us understand the assertion that there will be no adverse auditory effect. As the report indicates, the data presented appears to vary in the several documents provided us. We have requested clarification of both the readings and the method of manipulating the data to arrive at the published figures. We have requested as well the parameters for the predictive model to verify the accuracy of its predicted values. A major flaw is the SHA study appears to stop before the complex interchange that integrates it with the already existing first leg of the ICC, I-370. This section of interstate highway will be redirected as the main roadbed of the ICC with multiple ramps to serve all directions of traffic, and the new construction will encompass connections with Shady Grove Road and Route 355. The study fails to examine the impacts of this construction under either Type I Highway criteria (new or altered), or Type II Highway criteria (existing). In some statements, including the very title of the project, it confirms the reality of I-370 as part of the ICC, but then chooses to deny it when convenient. In either case it was a mistake to exclude it from the study, and it should be added before either "impacts" or "effects" can be truly determined.

5. As indicated in the attached Phoenix report, this portion of the road can unfortunately be heard throughout the Town. It thus has had some effect on the original tranquility, an effect that would be impossible to judge as anything but negative. The amount of effect and/or increased effect that is significant appears to be the question. The SHA report proposes that we ignore the noise from the present road and only consider the noise predicted by the model. This is a easier approach, and perhaps appropriate for areas of completely new roadway, but the Phoenix report questions whether it is can be an accurate or appropriate predictor at areas integrating with existing roadways. It indicates that cumulative levels in this case more accurately represent the predicted effect than just the model. And these predicted cumulative levels could well exceed 60dbA. As mentioned we have requested to be able to review the model for this area to assess its ability to produce an accurate prediction.

As also indicated in the attached Phoenix report, the ambient levels measured in the center of Town, further away from the road, appear to be roughly 46dbA and, lacking other metrics, can be considered to represent the natural levels before this section of the ICC was built. The measurements closer to the road show levels roughly 6dbA higher. It can be reasonably concluded that this 6dbA is the current effect of the road on the Town.

6. Whether the predicted levels reach 54-57dbA as proposed by the model or indeed over 60dbA, the adverse effect becomes not only apparent but measurable as well. The question is what constitutes a sufficient impact for concern. We understand the normal criteria for action under the Barriers Policy restricts the definition of "impact" to only a few levels, one being 67dbA for normal residential areas and the other being 57dbA for areas "on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose." Clearly we read that description as fitting Washington Grove like a glove, whereas you do not, reserving it solely for places of performance. The threshold level of 67dbA is the level at which normal conversations between people are disrupted. The threshold level of 57dbA is already almost twice the concert background level and approaches the level put up with for normal urban life. We believe it evident that if the Town does not quite fit in the sensitive areas category it is equally as foreign to the normal developed area category. And whereas we read reduction in quality as an impact to be avoided, apparently only complete negation of purpose will cross the threshold of impact for the SHA. The Noise Barrier Policy is not the suitable implement to use to in assessing effect under the Act intended to "*minimize or mitigate any adverse effects on historic properties.*"

Please address each of the concerns expressed above as required by the Act. We would like to be satisfied with your conclusions that the road will have no adverse effect, but at present you have only addressed the very narrowest of interpretations, and the Town of Washington Grove is not in agreement with your determination.

Sincerely,



Robert Booher
Chair, Historic Preservation Commission
Town of Washington Grove

Cc: John Compton, Mayor, Town of Washington Grove
HPC Commissioners: TWG,
Audrey Scott, Maryland Secretary of Planning
Rodney Little, SHPO
Wesley Mitchell, Project Manager
Bob Rosenbush, Clearinghouse Contact
Julia O'Malley, Chair, County HPC

MD 2006 0117-0048



Phoenix Noise & Vibration, LLC
930 North East Street, Suite #4
Frederick, Maryland 21701
301.846.4227 (phone)
301.846.4355 (fax)
www.phoenixnv.com

21 March 2006

Bob Booher
Chair-Historic Preservation Commission
Town of Washington Grove
P.O. Box 216
Washington Grove, Maryland 20880-0216

Reference: ICC Noise Analysis Proposal

Dear Mr. Booher:

The following presents the results from our on site noise measurements as well our review of the currently available documents which address noise impact from the ICC on the Town of Washington Grove. The balance of our analysis is waiting our receipt of the TNM Model results.

On-site Noise Measurements

On March 8, 2006, Phoenix NV conducted field testing of the current ambient noise levels in the township. Measurements were made in eight different locations, three of which matched the measurements made in the SHA Noise Quality Technical Report (NQTR) and five were made in various points around the town. The Noise Quality Technical Report provides the basis for the Environmental Impact Statement. Please see the attached aerial photograph for the exact measurement point locations.

Measurements were made for approximately 30 minutes in each location. During this period, 1 minute Leq values were recorded. Leq is the average noise level during some designated time period; in this case that time period is 1 minute. Having the 30, one minute measurements at each location allows further evaluation of the noise level variations during the measurement period. Measurements were made between 2:30 P.M. and 7:00 P.M. This time period was chosen to gather peak hour noise levels from existing I-370. From this data the overall Leq value for the 30 minute period could be determined. This is referred to as the "field ambient" noise level. Note that this measurement scheme is identical to the one used by SHA for the Noise Quality Technical Report.

During the measurements, noise levels from various sources were measured including I-370, the railway, aircraft flyovers, and traffic on local streets. While I-370 noise remained constant during the survey, the other significant sources were generally short term, high level events. Having the 1 minute data available enabled removal of these events from the average in order to determine the average noise level which is generated by I-370. The results of the noise measurements along with the values without the events are presented in the following table:

Measurement Position	Address or Description	Start Time	Field Ambient Leq, dBA	Field Ambient minus events* Leq, dBA	Events During Measurement
A	The Sacred Circle	2:33	44.5	44.5	-
B	Town Gazebo	2:20	47.3	47.3	-
		6:35	57.9	47.2	2 Trains, Aircraft
C	326 Ridge Road	4:37	56.9	48.8	3 Trains, Local Traffic, 2 Aircraft
D	End of Ridge Road	3:46	49.5	49.5	2 Aircraft
E	Top of Lower Field	4:42	63.5	56.5	4 Trains, Aircraft
R-2F	506 Brown Street	3:59	52.7	52.7	-
R-2G	102 Ridge Road	5:20	59.6	52.0	Dog barking, 7 Aircraft, Local traffic, Train
R-2H	112 Ridge Road	5:22	60.0	53.9	2 Trains

*Minus events such as trains, local road traffic, aircraft flyovers, etc. The remaining is essentially noise from I-370 or other constant surrounding noises such as birds, rustling leaves, etc.

A second set of measurements were made at the Gazebo to verify that levels during the early afternoon were roughly equivalent to those measured during heavy rush hour traffic. Also note that in cases where there is no difference between field ambient and adjusted values, no high level noise events occurred during the measurement period. It is significant to note that during the survey, I-370 was audible in all measurement locations.

Current Noise Document Review

Based upon our review of the Noise Quality Technical Report, various correspondence from Maryland State Highway and the Town of Washington Grove, and portions of the current Environmental Impact Statement which involve noise impact from the future roadway, we offer comments regarding interpretation, MDSHA criteria, and its application to the Town of Washington Grove.

1. There is discrepancy between reports. Considering the FEIS and the NQTR, both dated January 2006, why do the field ambient values for R-2F, 2G, and 2H vary in FEIS Table II-31, NQTR Table III-1, and Table III-2?
2. Using the raw data from Appendix C in the NQTR, the data can be averaged manually which produces field ambient levels of 59 dBA at 102 Ridge Road, however the reported value at the same location varies from 51 to 53 dBA, depending upon the table used from either the NQTR or the FEIS.
3. As mentioned, the PNV measurements were made in the same fashion as those taken by SHA for the Noise Quality Technical Report. This was done so that direct comparisons could be made to those measurements. SHA conducted measurements on two different occasions, March 11, 2004 and August 8, 2005. A comparison of the Phoenix NV results with the SHA results is presented here. The dates listed are the dates of the report in which the data was provided. This data along with the various Peak Ambient and Adjusted Ambients are presented below.

Tag	Address	PNV Measurements dBA	SHA Measurements or Developed Ambients dBA				FEIS dBA
			Field Ambient ¹	Field Ambient ¹ From Table II-1 of NQTR	Peak Ambient ² Nov. 04	Peak Ambient ² Aug 05	
R-2F	506 Brown St	52.7	49	50	58	50	50
R-2G	102 Ridge Rd	59.6	51	54	58	53	52
R-2H	112 Ridge Rd	60.0	50	54	54	53	52

¹Field ambient noise measurement taken at short term receptor sites.

²Adjusted peak ambient noise levels are developed using data collected during the 24 hour field ambient noise level measurements.

It is not clear why the noise levels from the SHA vary from report to report. It is also not clear how the "Peak Ambient" levels are developed and why they vary. Also, field measured, raw data from position R-2H is not available in the NQTR. In many cases, data listed is same as that for R-2G.

- The forecasted 2030 "Build" noise levels from the roadway change with date. Even the most recent levels from the FEIS and the NQTR Addendum (both dated Jan 06) vary by 3 dBA at point R-2F, 506 Brown Street.

Receiver	NQTR			FEIS		
	Peak Ambient dBA	2030 No Build Level dBA	2030 Build Level dBA	Adjusted Ambient dBA	2030 No Build Level dBA	2030 Build Level dBA
R-2F	50	57	54	50	57	57
R-2G	53	53	53	52	54	54
R-2H	53	53	53	52	54	54

- The resultant "2030 Build" noise level is the expected noise level from the roadway only. This number does not include the existing background noise from other sources. This explains why the "Build" condition can be quieter than the "No Build" condition. This is the established convention for SHA. However, in reality the resultant noise level will be the combination of the current peak ambient level and the noise from the future roadway. For example, at position R-2G if the existing noise level is 52 dBA and the "2030 Build" level from the roadway will be 54 dBA, the resultant overall noise level (52 + 54) will be 56.1 dBA.
- Field ambient levels measured by SHA are lower than those measured by Phoenix NV. If PNV ambient levels were used in the above example calculations, the combined noise levels at R-2G would be 60.2 dBA.
- While it may be true that the noise level from the proposed roadway alone is no higher than the existing noise level, it is not accurate to state or imply that the noise level from the roadway will not increase the overall noise level in the community.

8. Current noise from I-370 affects the site, however there is no reference to the ambient noise level in absence of I-370. Given that the ICC is an extension of I-370, the ambient noise level at the site could be considered that level which existed before I-370. A reasonable estimate of that level would be the average of noise levels measured at the Sacred Circle and the Gazebo; locations which are at significant distances from the roadway. While the roadway noise is audible it is at or below the level of other sounds in the area (birds, wind in the leaves, etc.). Therefore an estimate of the ambient level throughout Washington Grove in absence of I-370 would be 46 dBA.

We have requested details of the Traffic Noise Model (TNM) which was used in the ICC analysis as well as answers to questions posed to William T. Ballard Company regarding the NQTR. We will provide comments to both of these items upon receipt.

Please contact me directly if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Harvey", with a horizontal line underneath.

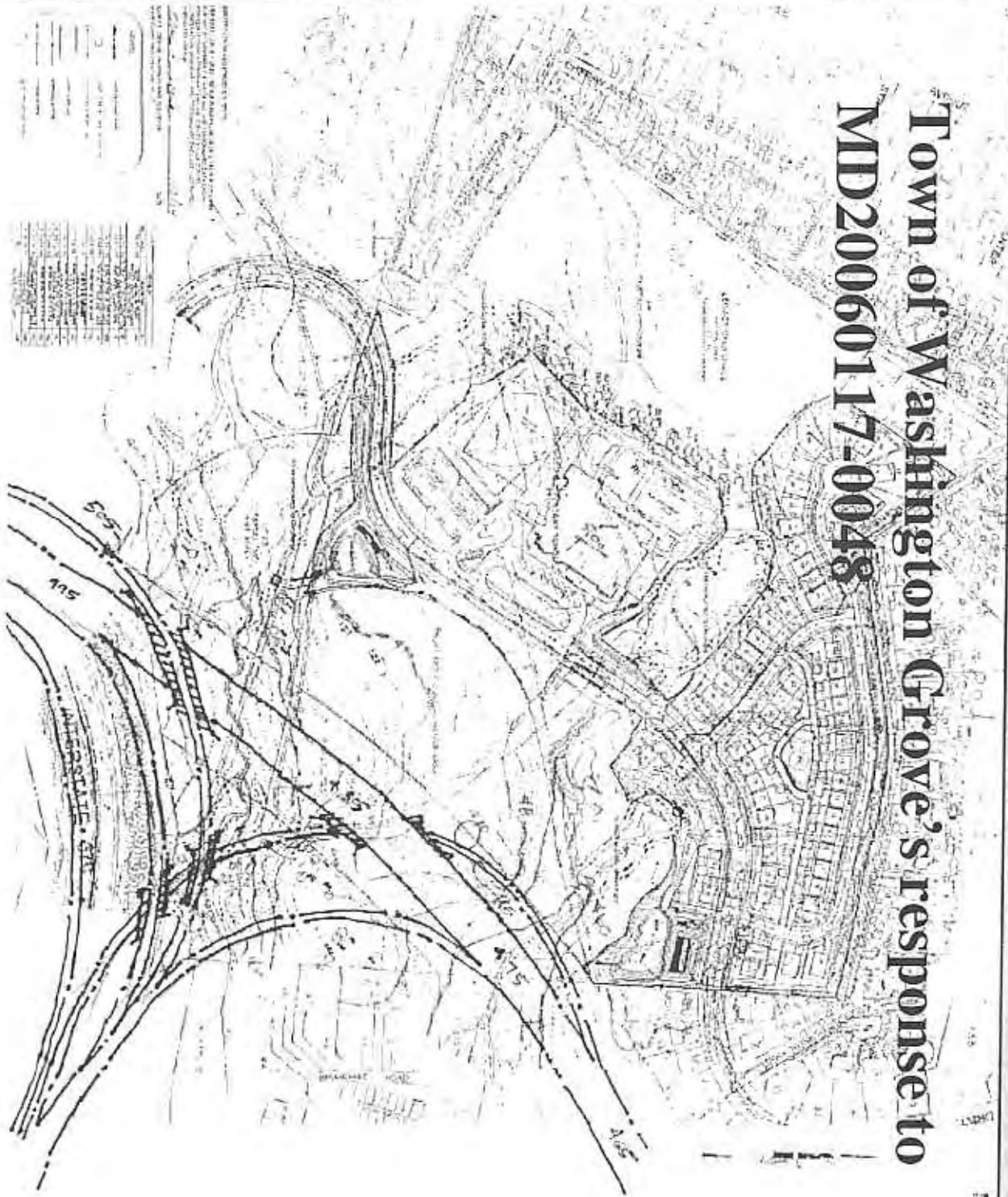
Scott Harvey, P.E.
Chief Engineer

SH/sh



114%

Town of Washington Grove's response to MD20060117-0048



PROPERTY INFORMATION

OWNER: J. & J. W. WASHINGTON, JR. & ASSOCIATES, INC.

ADDRESS: 10000 WASHINGTON GROVE ROAD, WASHINGTON GROVE, MD 20986

DATE: 01/17/06

PROJECT: TOWN OF WASHINGTON GROVE

SCALE: 1" = 100'

DATE: 01/17/06

PROJECT: TOWN OF WASHINGTON GROVE

SCALE: 1" = 100'

PROPERTY INFORMATION

OWNER: J. & J. W. WASHINGTON, JR. & ASSOCIATES, INC.

ADDRESS: 10000 WASHINGTON GROVE ROAD, WASHINGTON GROVE, MD 20986

DATE: 01/17/06

PROJECT: TOWN OF WASHINGTON GROVE

SCALE: 1" = 100'

DATE: 01/17/06

PROJECT: TOWN OF WASHINGTON GROVE

SCALE: 1" = 100'

MD 2006 0117-0048



MD20060119-0048



MD20060117-0048



#	Comment	Response
MDP State Clearing House		
1	The Maryland Historical Trust has stated that their findings of consistency are contingent upon the Applicant sustaining ongoing coordination between SHA, the Trust, and other involved parties to fulfill the stipulations of its Memorandum of Agreement, executed to fulfill compliance with Section 106 of the National Historic Preservation Act of 1966, as amended.	The Lead Agencies are committed to fulfilling the stipulations of the Memorandum of Agreement to satisfy compliance with Section 106 of the National Historic Preservation Act. Please refer to Attachment D.
2	The Maryland Department of State Police found this project to be consistent.	The Lead Agencies acknowledge that the Maryland Department of State Police found this project to be consistent.
3	The Maryland Departments of Business and Economic Development, and Natural Resources, and the Maryland Department of Planning found this project to be consistent with their plans, programs, and objectives. This Department also found this project to be consistent with the policies contained in executive Order 01.01.1992.27 (Maryland Economic Growth, Resource Protection, and Planning Act of 1992, Executive Order 01.01.1998.04 (Smart Growth and Neighborhood Conservation Policy).	The Lead Agencies acknowledge that Maryland Department of Business and Economic Development, Department of Natural Resources, and Maryland Department of Planning found this project to be consistent with their plans, programs, and objectives. The Lead Agencies appreciate the findings of the Agencies and these consistency determinations have been considered in the Record of Decision (ROD).
4	The language in the third paragraph on page VII - 48 (in Volume 1) should be rewritten as: "On August 31, 2005, the Maryland Board of Public Works determined that the project serves to "Connect Priority Funding Areas," and approved in the exception for the Corridor 1 Alternative under the Maryland's Smart Growth - Priority Funding Area Law, thereby permitting the State to provide State funding for the construction of the ICC."	The Lead Agencies will coordinate Maryland Department of Planning's requested Final EIS language revisions with FHWA for incorporation in the ROD. The Final EIS will not be rewritten but the comment has been considered by FHWA in its decision.

#	Comment	Response
MDP State Clearing House		
5	Montgomery County and Maryland-National Capital Park and Planning Commission in Montgomery County found this project to be generally consistent with their plans, programs, and objectives.	The Lead Agencies acknowledge that Montgomery County and Maryland-National Capital Park and Planning Commission in Montgomery County found this project to be generally consistent with their plans, programs, and objectives.
6	Montgomery County stated that Rock Creek Option A is preferred, rather than Rock Creek Option C, grade separation.	The Lead Agencies acknowledge Montgomery County's position that Rock Creek Option A is preferred instead of Rock Creek Option C - Olde Mill Run Grade Separation. This position was considered during the evaluation of the alignment options undertaken between publication of the Draft and Final Environmental Impact Statements along with the opinions of many other agencies including EPA, DOI, and M-NCPPC. Based on all considerations (including environmental impacts, costs, and agency preferences), Rock Creek Option C - Olde Mill Run Grade Separated was identified as the preferred option through this portion of the study area. The Selected Alternative includes Rock Creek C.
7	The City of Gaithersburg and Laurel found this project to be consistent with their plans, programs, and objectives. The City of Gaithersburg found this project to also be consistent with the Economic Growth, Resource Protection, and Planning Visions (Planning Act of 1992), State Finance and Procurement Article 5-7B- Smart Growth and Neighborhood Conservation (Priority Funding Areas).	The Lead Agencies appreciate the findings of the Cities of Gaithersburg and Laurel and these consistency determinations have been considered by FHWA in its decision.
8	The Town of Garrett Park found this project to be generally consistent with their plans, programs, and objectives, but included these qualifying comments. The Town of Garrett Park stated that "we are located far enough away from the proposed sites to not be affected or certainly not in any substantive way."	Lead Agencies appreciate the findings of the Town of Garrett Park and their consistency determination and qualifying comments have been considered by FHWA in its decision.

#	Comment	Response
MDP State Clearing House		
9	<p>The Town of Washington Grove believes that the project is not consistent (i.e. the project raises problems concerning compatibility with the Town's plans of achieving peace and quiet, programs, objectives, or Planning Act visions/policies).</p>	
10	<p>The Town of Washington Grove has concerns regarding the determination of an adverse audible effect and, an adverse visual effect on the Town (i.e. the Town is on the National Register of Historic Places); the lack of information about the predictive model, and the parameters for the predictive model which were used by SHA to assert that there would be "no adverse auditory effect"; the definition of "impact" as it applies to a consideration of an adverse effect on the Town; the suitability of SHA's Noise Barrier Policy to assess adverse effects on historic properties; and the protection of the Town's "sense of Place", and its core community value.</p>	<p>The Lead Agencies appreciate the comments expressed and note that many of the expressed concerns are similar to comments made by Mr. Robert Booher, Chair, Historic Preservation Commission, Town of Washington Grove in a Final EIS comment letter dated March 21, 2006 that included references to similar comments made on the Draft EIS that SHA responded to on August 23, 2005. The concerns expressed by the Town and their Historic Preservation Commission were considered by FHWA in its decision.</p>
11	<p>The Metropolitan Washington Council of Governments found this project to be consistent with their plans, programs, and objectives.</p>	<p>The Lead Agencies appreciate the findings and the consistency determination was considered by FHWA in its decision.</p>

#	Comment	Response
MDP State Clearing House		
12	<p>The Montgomery Preservation, Inc. stated that sound walls are a necessity to protect the character of the Town of Washington Grove, a uniquely important historic community, from the negative noise impacts that would result from building the ICC. MPI affirmed that constructing sound walls is the right thing to do for the County's history, for the Town of Washington Grove's peace and quiet, and for the principles of environmental stewardship. MPI mentioned that Environmental Stewardship funds will be used to restore historic and cultural resources, and to undo previous environmental damage. MPI believes that the use of such funds would be appropriate to undo the previous environmental damage, in the form of noise, done to the Town of Washington Grove by the construction of I-370.</p>	<p>Noise analysis was completed for the ICC, and the Town of Washington Grove will not be impacted by traffic noise exceeding federal and state criteria. Additional analyses on the project's potential impacts on the historic character of the Town resulted in a No Adverse Effect determination for the Town of Washington Grove Historic District. Therefore, a noise wall will not be constructed in the Town of Washington Grove. Chapter VI of the FEIS includes a discussion of the selection and ranking process that resulted in the Environmental Stewardship projects for the ICC.</p>
13	<p>The State Clearinghouse would like to be kept informed of all decisions made in regard to this project. The Clearinghouse summary of findings is valid for a period of three (3) years from the date of this letter. If the proposed action has not taken place within that time period, information should be submitted to the Clearinghouse requesting a review update.</p>	<p>The Lead Agencies assure that the State Clearinghouse will be kept informed of all decisions made in regard to this project including FHWA's Record of Decision.</p> <p>The Lead Agencies also acknowledge that the Clearinghouse summary of findings is valid for a period of three (3) years from the date of this letter and if the proposed action has not taken place within that time period, information should be submitted to the Clearinghouse requesting a review update.</p>



Maryland Department of Planning

Robert L. Ehrlich, Jr.
Governor
Michael S. Steele
Lt. Governor

Audrey E. Scott
Secretary
Florence E. Burian
Deputy Secretary

April 10, 2006

Mr. Raja Veeramachaneni
Director, Office of Planning and Preliminary Engineering
State Highway Administration
707 N. Calvert Street
Baltimore, MD 21202

STATE CLEARINGHOUSE REVIEW – ADDITIONAL REVIEWER COMMENTS RECEIVED

State Application Identifier: MD20060117-0048

Project Description: Final Environmental Impact Statement: Intercounty Connector I-270 to US 1 (see MD20041130-1312)

Project Location: Montgomery, and Prince George's Counties

Clearinghouse Contact: Bob Rosenbush

Dear Mr. Veeramachaneni:

We are forwarding the enclosed comments made by the Maryland Department of the Environment, Prince George's County, including the Maryland-National Capital Park and Planning Commission, and the Towns of Kensington, and Washington Grove regarding the referenced project for your information.

The Maryland Department of the Environment (MDE) stated that it has been an active participant in the ICC study process. As a Cooperating Agency, along with the U.S. Army Corps of Engineers and the Environmental Protection Agency, MDE has participated in the monthly Interagency Working Group meetings, the Principals +I meetings, and has provided formal concurrence on the purpose and need, alternatives retained for detailed study, and the preferred alternative and conceptual mitigation for the project.

A Nontidal Wetlands and Waterways Permit and Clean Water Act, Section 401 Water Quality Certification are required from MDE for proposed impacts to wetlands, waterways, and the 100-year nontidal floodplain. MDE continues to review the State Highway Administration's application for these authorizations.

Prince George's County stated that the letter dated February 9, 2005, from County Executive Jack Johnson, still applies to the County's review of the ICC FEIS. Prince George's County also included comments from the County Department of Public Works and Transportation, and the Maryland-National Capital Park and Planning Commission. See the letter, and memoranda.

We are forwarding a map entitled "Casey Property @ Mill Creek: Interchange Area Reserved" that was not part of the documents submitted to SHA, on behalf of the Town of Washington Grove, by the State Clearinghouse in our letter dated March 23, 2006.

The Town of Kensington addressed issues relating to: a potential increase in traffic volume, the protection of the natural environment and parkland, and quality of life. See the letter.

Post-It® Fax Note	7671	Date	4/11/06	# of pages	14
To	Mr. Raja Veeramachaneni	From	Bob Rosenbush		
Co./Dept.	SHA	Co.	MDP		
Phone #		Phone #	410-767-4489		
Fax #	410-209-5014	Fax #	Additional comments		

301 West Preston Street • Suite 1
Telephone: 410.767.4500 • Fax: 410.767.4480 •

Internet: www.mdp.state.md.us

Mr. Raja Veeramachaneni
April 10, 2006
Page 2

Should you have any questions, contact the State Clearinghouse staff person noted above at 410-767-4490 or through e-mail at brosenbush@mdp.state.md.us. Your cooperation and attention to the review process is appreciated

Sincerely,



Linda C. Janey, J.D., Director
Maryland State Clearinghouse for Intergovernmental Assistance

LCJ:BR
Enclosure (Comments Received)
cc: John Compton - Town of Washington Grove
Lynn Raufaste - Town of Kensington
Beverly Warfield - PGE
Joane Mueller - MDE



Jack B. Johnson
County Executive

PRINCE GEORGE'S COUNTY GOVERNMENT

DPW&T



Department of Public Works and Transportation
Office of the Director
MEMORANDUM

MD20060117-0048

March 14, 2006

TO: Beverly Warfield, Special Assistant for Regulatory Affairs
Environmental Services Division, DER

FROM: *HAH* Haitham A. Hijazi, Director
Department of Public Works and Transportation

RE: Maryland State Highway Administration
Intercounty Connector Final Environmental Impact Study
Clearing House Referral Number MD20060117-0048

This is in response to your January 30, 2006 referral of the Maryland State Highway Administration (SHA) Intercounty Connector (ICC) Final Environmental Impact Study (EIS). We reviewed the referral and offer the following:

Comments on the draft EIS were submitted to SHA in February of 2005. The Department was in support of the Alternate (Corridor) 1 alignment of the ICC that terminated at US 1, which was approved by the State. Also, the importance of a continuous east-west bike trail was expressed, which will be built in conjunction with ICC improvements. (A copy of this letter is attached.)

Now that the alignment has been chosen, it is imperative that the impacted County-maintained roadways receive the proper upgrade to the ultimate sections to function properly with the anticipated increase in traffic volume. The immediately impacted roadways are Old Gunpowder Road, Van Dusen Road, Muirkirk Road and Virginia Manor Road. Muirkirk Road will experience more traffic due to the proposed termination of the ICC at US 1. The road upgrades need to occur in conjunction with the construction of the ICC to ensure proper traffic circulation in the area.

See note
below

If you have any questions or require additional information, please contact Elizabeth McKinney, District Engineer for the area, at (301) 883-5710.

Attachment

HAH:EMM:dar

cc: Dawit Abraham, P.E., Associate Director, OE, DPW&T
J. Rick Gordon, Associate Director, OT, DPW&T
Elizabeth M. McKinney, District Engineer, EISD, OE, DPW&T

Inglewood Centre 3
(301) 883-5600

9400 Peppercorn Place, Suite 300
FAX (301) 883-5709

Largo, Maryland 20774
TDD (301) 985-3894

Note: Please see comment No. 2 from Prince George's County Department of Public Works and Transportation (DPW&T) March 24th e-mail that follows.

-----Original Message-----

From: Weissberg, Victor [mailto:VWeissberg@co.pg.md.us]
Sent: Friday, March 24, 2006 5:20 PM
To: Smith, Andy
Subject: Comments to summary commitments document

Andy,

I would like to provide the DPW&T comments offered on-line to the FEIS yesterday, as well as issues raised in SHA/MdTA/DPW&T meeting held on Monday. Please add to the commitments document as appropriate.

Prince George's County DPW&T Comments to the ICC FEIS:

In response to the extension of the review and comments period to the Maryland State Highway Administration (SHA) Intercounty Connector (ICC) Final Environmental Impact Study (EIS), the Prince George's County Department of Public Works and Transportation, on behalf of the Prince George's County Executive, offers the following comments:

Original comments on the Draft EIS were submitted to SHA in February of 2005, which included support for the Alternate (Corridor) 1 alignment of the ICC. Also, the importance of a continuous east-west bike trail built in conjunction with ICC improvements was addressed. Furthermore, the County's transportation plan calls for enhanced public transit facilities focusing on serving mixed-use transit-oriented development, enhancement, and revitalization of the inner core of the County. As such, a proper balance of both roads and public

transportation facilities is necessary. Departmental draft EIS support and comments continue in favor of the final EIS identified as the Preferred Alternative of Corridor 1.

1

With the alignment selected, it is imperative that the County-maintained roadways which will be immediately impacted, receive upgrades where necessary to provide for proper function due to the anticipated increase in traffic volumes. Those roadways include: Old Gunpowder, Van Dusen, Muirkirk, and Virginia Manor roads, as well as Kenilworth Avenue extended. Muirkirk Road and Kenilworth Avenue extended will experience increased traffic resulting from the confluence of the ICC into the area. All roadway upgrades need to occur in conjunction with the construction of the ICC to ensure proper traffic circulation in the area.

2

In addition, the following was raised as part of the SHA/MdTA/DPWT meeting on Monday:

* Impacts on the surrounding roadway infrastructure (from I-95/I-495 interchange to MD 198 and in between), should be assessed and addressed with required local roadway extensions and upgrades to be included as part of the project cost.

3

* There should be consideration of the split movement terminating at Route 1 to be widened in order to deter box-blocking of the intersection on Route 1, increase the separations of the opposing roadways at the terminus, and to provide a landscaped median for both roadway sections onto the ICC from Route 1 and from the ICC to Route 1.

4

* The ICC roadway from Route 1 to a point north of the proposed maintenance facility should be lowered. Depressing the roadway in this area will also permit any bridging and elevated sections, i.e. Virginia Manor Road, to have a lower profile in the landscape. The transitions occur in 'the side of a bowl' across the broader terrain, from Route 1 uphill on the way to I-95. The roadway 'in cut' will reduce will reduce noise impacts and reduce visual intrusion across

5

the site. Reflects Conceptual Design/General Commitment #3 & Conceptual Design/Aesthetics/Socio-Economic Commitment #1 - FEIS.

5

* Route 1 drainage and flooding issues deserve close examination. The adequacy of storm water retention ponds should be checked against historic flood data (i.e. Hurricane Agnes - 1972).

6

* The Contee Road interchange with I-95 and the ICC interchange will create a northern gateway for the county, and their design should be appropriate, as a 'front door'; with careful attention to materials, colors, lighting, design details, landscaping, etc. Reflects Conceptual Design/Aesthetics/Socio-Economic Commitment # 1 - FEIS.

7

* The proposed maintenance facilities, including the double-coned salt dome, to be located near Route 1 should be as low in the site as possible. Consideration must be given to lowering the entire site for the buildings. Because the site is at least 10 feet above the grade of Route 1 sufficient flexibility exists in the site plan to reduce the visual impacts of these facilities.

8

Please accept these comments as pertinent to the comments to the commitments document discussed on Wednesday at the IAWG. If you have any questions, please contact me at (301) 883-5600.

Sincerely,

Vic Weissberg
Special Assistant to the Director
Prince George's County Department of Public Works and Transportation

#	Comment	Response
Prince George's County Department of Public Works and Transportation (DPWT)		
1	Departmental draft EIS support and comments continue in favor of the final EIS identified as the Preferred Alternative of Corridor 1.	The Lead Agencies acknowledge the Department of Public Works and Transportation's (DPWT's) support for the Preferred Alternative as stated in your comments. The Preferred Alternative (Corridor 1 with Rock Creek Option C and Northwest Branch Option A) is the Selected Alternative in the Record of Decision (ROD).
2	With the alignment selected, it is imperative that the County-maintained roadways which will be immediately impacted, receive upgrades where necessary to provide for proper function due to the anticipated increase in traffic volumes. Those roadways include: Old Gunpowder, Van Dusen, Muirkirk, and Virginia Manor roads, as well as Kenilworth Avenue extended. Muirkirk Road and Kenilworth Avenue extended will experience increased traffic resulting from the confluence of the ICC into the area. All roadway upgrades need to occur in conjunction with the construction of the ICC to ensure proper traffic circulation in the area.	Construction of the ICC is not anticipated to result in significant increases in traffic volumes in Prince George's County, beyond those already predicted under the no build scenario. As shown on Figure IV-11 of the Final EIS, with construction of the ICC, numerous roadways in Prince George's County are expected to experience lower ADTs (such as Sandy Spring Road, Cherry Hill Road, Fairland Road and US 1) and only a few are expected to have ADTs 10% or more higher than would have occurred without the ICC.
3	Impacts on the surrounding roadway infrastructure (from I-95/I-495 interchange to MD 198 and in between), should be assessed and addressed with required local roadway extensions and upgrades to be included as part of the project cost.	Impacts to I-95 have been addressed as part of the Interstate Access Project Approval process with FHWA that included an analysis of how the changes to the transportation network will effect the operations along the Interstate. Chapter IV.J of the Final EIS includes a thorough analysis of how the Selected Alternative will impact the local roadway network.
4	There should be consideration of the split movement terminating at Route 1 to be widened in order to deter box-blocking of the intersection on Route 1, increase the separations of the opposing roadways at the terminus, and to provide a landscaped median for both roadway sections onto the ICC from Route 1 and from the ICC to Route 1.	Detailed intersection operational issues such as those mentioned will be considered and assessed by the Design Builder during the construction phase. The islands and shoulders of Route 1 intersection will be landscaped as part of the context-sensitive design on solutions to be applied as design is further refined. Sensitive design is discussed on pages in the ROD.

#	Comment	Response
Prince George's County Department of Public Works and Transportation (DPWT)		
5	<p>The ICC roadway from Route 1 to a point north of the proposed maintenance facility should be lowered. Depressing the roadway in this area will also permit any bridging and elevated sections, i.e. Virginia Manor Road, to have a lower profile in the landscape. The transitions occur in 'the side of a bowl' across the broader terrain, from Route 1 uphill on the way to I-95. The roadway 'in cut' will reduce noise impacts and reduce visual intrusion across the site. Reflects Conceptual Design/General Commitment #3 & Conceptual Design/Aesthetics/Socio-Economic Commitment #1 - FEIS.</p>	<p>This portion of the ICC is being considered to be changed from a freeway to a boulevard in order to transition motorists to the local road system, and as such may or may not require as much desired depression. If converted, the aesthetics of the roadway would be different from the freeway as well, likely including additional landscaping. The Final EIS includes a smaller cross section between I-95 and US 1. The Lead Agencies will continue to work with Prince George's County on design refinements including but not limited to profile changes. The project preliminary design is already creating excess material and any further lowering of the profile will create a greater amount of material.</p>
6	<p>Route 1 drainage and flooding issues deserve close examination. The adequacy of storm water retention ponds should be checked against historic flood data (i.e. Hurricane Agnes - 1972).</p>	<p>The Lead Agencies are aware of and have analyzed flooding issues along US 1 in the vicinity of the ICC terminus. Construction of the ICC will address flooding issues along US 1 in the vicinity of the eastern terminus. Any drainage improvements associated with the ICC will take into account the appropriate storm return periods (Attachment E, Summary of Project Commitments, following commitment number 115).</p>
7	<p>The Contee Road interchange with I-95 and the ICC interchange will create a northern gateway for the county, and their design should be appropriate, as a 'front door'; with careful attention to materials, colors, lighting, design details, landscaping, etc. Reflects Conceptual Design/Aesthetics/Socio-Economic Commitment # 1 - FEIS.</p>	<p>It is anticipated that the I-95/Contee Road and I-95/ICC interchanges and structures will have an I-95 aesthetic treatment applied to them that is different from the ICC treatment, and that the treatment will be coordinated with the appropriate agencies for approval during the design process and before construction.</p>
8	<p>The proposed maintenance facilities, including the double-coned salt dome, to be located near Route 1, should be as low in the site as possible. Consideration must be given to lowering the entire site for the buildings. Because the site is at least 10 feet above the grade of Route 1 sufficient flexibility exists in the site plan to reduce the visual impacts of these facilities.</p>	<p>Refinement of the maintenance facility site design is continuing in coordination with Prince George's County. Consideration is being given to reduce the visual impact of the facility through grading, screening and aesthetics (Attachment E, Summary List of Project Commitments, number 157).</p>



THE PRINCE GEORGE'S COUNTY GOVERNMENT
OFFICE OF THE COUNTY EXECUTIVE



Jack B. Johnson
County Executive

March 30, 2005

The Honorable Robert L. Flanagan
Secretary of Transportation
Maryland Department of Transportation
7201 Corporate Center Drive
Hanover, Maryland 21076

Dear Secretary Flanagan:

This is in response to your letter dated February 18, 2005 in reference to the Maryland Department of Transportation's State Highway Administration (SHA) Intercounty Connector (ICC) Study. This project will allow the northwestern portion of the County to develop as envisioned in the currently approved Laurel, Beltsville and Vicinir Master Plan (Subregion I). Corridor 1 is the preferred build alternate since it is consistent with the master plan and would allow for significant economic development.

However, in order to provide an effective transportation infrastructure to serve existing and future economic development centers in Prince George's County, as stated in the "Purpose and Need", the proposed ICC should be constructed to end at US 1 rather than truncating the facility at I-95. It is my understanding that the preferred eastern terminus location of the ICC has been previously discussed with the study team and was most recently reiterated by Mr. Haitham A. Hijazi, Director of Public Works and Transportation, in a letter dated February 7, 2005 to SHA, please see attached.

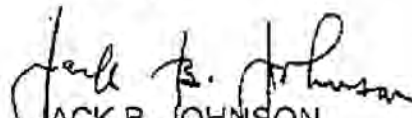
Construction of the ICC should result in fewer hours of congestion, faster travel times, better reliability and generally improved intersection levels of service that would improve the quality of life of our citizens and residents and support the continued attraction and retention of businesses in that area of Prince George's County.

1741 Governor Oden Bowie Drive, Upper Marlboro, Maryland 20772
(301) 952-4131

The Honorable Robert L. Flanagan
Page :

If you have any questions regarding the above, please contact me or Mr. Alfonso N. Cornish, Deputy Chief Administrative Officer for Governmental Operations/ Environmental Services, at (301) 952-4131.

Sincerely,


JACK B. JOHNSON
County Executive

Attachments

cc: Alfonso N. Cornish, Deputy Chief Administrative Officer for Governmental
Operations/Environmental Services
Veil Pedersen, SHA, Administrator
Haitham A. Hijazi, Director, Department of Public Works and
Transportation



Jack B. Johnson
County Executive

PRINCE GEORGE'S COUNTY GOVERNMENT



Department of Public Works and Transportation
Office of the Director



February 7, 2005

Mr. Rja Veeramachaneni
Director
Office of Planning and Preliminary Engineering
State Highway Administration
700 North Calvert Street
Baltimore, Maryland 21202

Re: Intercounty Connector (ICC)

Dear Mr. Veeramachaneni:

Thank you for forwarding a copy of the Draft Environmental Impact Statement (DEIS) for the Intercounty Connector (ICC) project from I-270 to US 1. We have reviewed the study and offer the following comments:

- Corridor 1 is consistent with the approved Laurel, Beltsville and Vicinity Master Plan. Corridor 2 would adversely affect the proposed Konterra project, a major development center in Prince George's County.
- The proposed Intercounty Connector should be constructed to end at US 1 in order to provide an effective transportation infrastructure to serve existing and future economic development centers in Prince George's County as stated in the "Purpose and Need" rather than truncating the facility at I-95. Interchanges should be planned and constructed at I-59 (planned Arterial within the Konterra project) and Virginia Manor Road.
- A continuous east-west bicycle trail, which would minimize environmental impacts, should be constructed as part of the ICC project in order to provide a truly multi-modal facility that could be used by bicycle commuters and recreational users.

Mr. Rja Veeramachaneni
February 7, 2005
Page

- Traffic impacts associated with the construction of the ICC would result in fewer hours of congestion, faster travel times, better reliability and generally improved intersection levels of service throughout the study area. This would greatly improve the quality of life for our citizens and residents and support the continued attraction and retention of businesses in Prince George's County and the region.
- Environmental impacts are being minimized (with the construction of longer bridge spans, narrower roadway footprints, noise walls and other techniques) and mitigated. Additionally, several environmental stewardship/enhancement projects are being added.
- If corridor 2 were selected, significant harm could occur to the Rocky Gorge reservoir as a result of a trucking accident/spill involving dangerous goods/hazardous materials. The reservoir provides drinking water for Prince George's and Montgomery Counties.
- The construction of the ICC should generate approximately 6,000 new jobs in Prince George's County, thereby possibly reducing travel distances to many County residents that now work in other jurisdictions and further stimulating the local economy.

After careful consideration and review, we have determined that Corridor 1 (master plan alignment) is the preferred alternate since it has the greatest consistency with the Laurel, Belville and Vicinity Master Plan and provides the greatest benefits to Prince George's County.

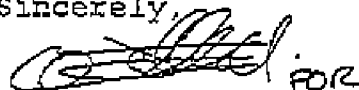
Mr. Raa Veeramachaneni

February 7, 2005

Page 2

If you have any questions or require any additional information, please contact Cicero Salles, Special Assistant to the Director, at (301) 883-5600.

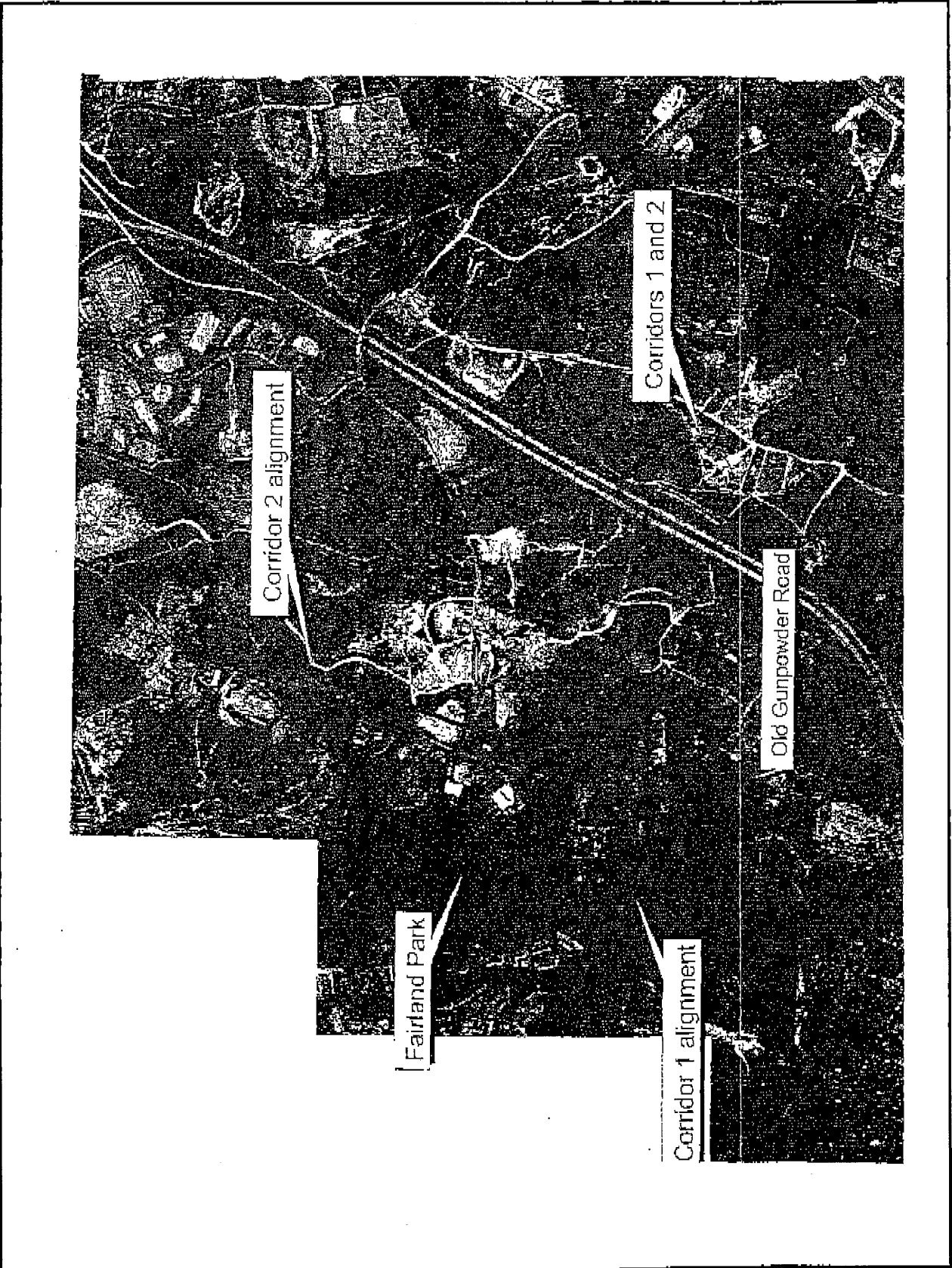
Sincerely,

A handwritten signature in black ink, appearing to read "Haitham A. Hijazi". To the right of the signature, the word "FOR" is written in a similar cursive style.

Haitham A. Hijazi
Acting Director

HAA/C&dc

cc: Afonso N. Cornish, Deputy Chief Administrative Officer
Iwit Abraham, P.E., Acting Associate Director,
Office of Engineering
Adre' Issayans, Chief, Traffic Division
Elizabeth M. McKinney, District Engineer, OE
Cicero Salles, Special Assistant to the Director





THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

14741 Governor Oden Bowie Drive
Upper Marlboro, Maryland 20772
TTY: (301) 952-3796

Prince George's County Planning Department
Community Planning Division

301-780-2232
www.mncppc.org

MD 20060117-0048

March 17, 2006

MEMORANDUM

TO: Beverly G. Warfield, Department of Environmental Resources
FROM: Keith Hall, M-NCPPC
SUBJECT: Clearinghouse Referral Number: MD20060117-0048 Final Environmental Impact Statement: Intercounty Connector I-270 to US 1.

Our response on the above-referenced proposal is the following:

- () In conformance with local plans, programs, and objectives. Recommend favorable review.
- (X) Comments below:

General Comments - Park Facilities

<ul style="list-style-type: none"> • Additional consideration should be given to the Environmental Stewardship Project Site ID 16 - Pedestrian/Bicycle Trail along Old Gunpowder Road. The ES Concept in Table VI-6 recognizes the important connection from Fairland Regional Park to MD 198. Equally important, if not more so, is to complete the section of trail from Denim Road to Briggs Chaney Road along Old Gunpowder Road. This section will make the trail contiguous with the existing trails to Beltsville Community Park. The completion of one additional trail segment south of the Beltsville Community Park will create a contiguous trail via the Anacostia Trail System from Laurel to Bladensburg and eventually to Washington, DC. 	1
--	---

<ul style="list-style-type: none"> • Construction of an east to west recreational trail with the ICC would benefit residents by creating more recreational opportunities and mapping access to inter- and intra-county park facilities. This is especially true in Prince George's County for people who live east of I-95, US 1, or Baltimore-Washington Parkway where an east-west trail will enable them to access Fairland Regional Park without a motor vehicle. 	2
--	---

MD20060117-0048 (Final Environmental Impact Statement: Intercounty Connector I-270 to US 1

March 17, 2006

Page 2

- Though most of the proposed sites for stream restoration and wetland creation are not located on M-NCPFC property, we support efforts by the State Highway Administration to improve the water quality and habitat of the Little Paint and Paint Branches, and Indian Creek.

3

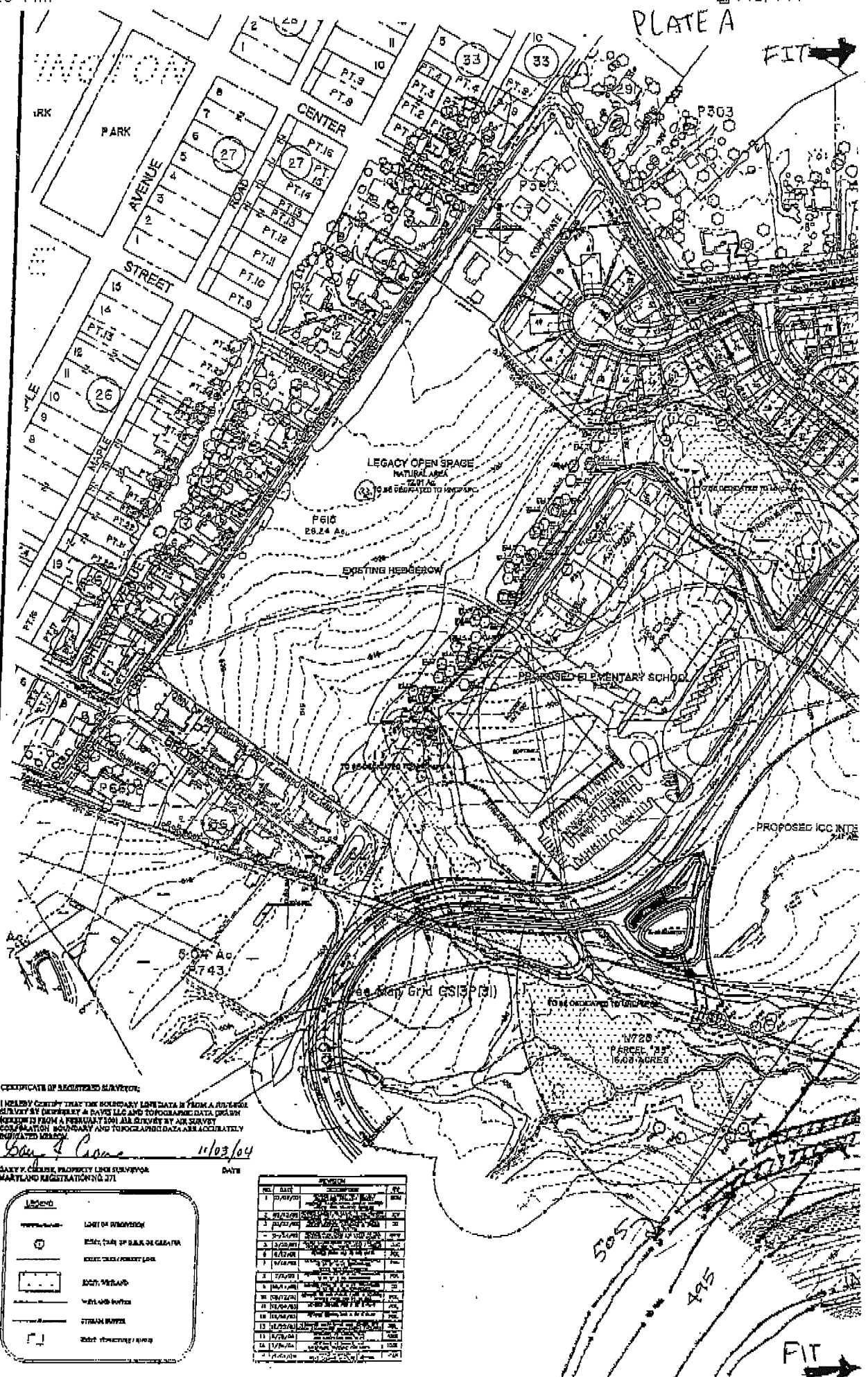
Approved by *Fern Piret*

Fern Piret, County Planning Director

PLATE A

FIT →

Submitted by the Town of Washington Grove as part of the Maryland Intergovernmental Review and Coordination Process on March 22, 2006



CERTIFICATE OF REGISTERED SURVEYOR
 I HEREBY CERTIFY THAT THE BOUNDARY LINE DATA IS FROM A SURVEY
 CONDUCTED BY GARY V. COLLIER, PROPERTY LINE SURVEYOR, AND TOPOGRAPHIC DATA DRAWN
 FROM A PHOTOGRAMMETERY AIR SURVEY BY AIR SURVEY
 CORPORATION. BOUNDARY AND TOPOGRAPHIC DATA ARE ACCURATELY
 INDICATED HEREON.
Gary V. Collier 11/03/04
 GARY V. COLLIER, PROPERTY LINE SURVEYOR DATE
 MARYLAND REGISTRATION NO. 271

Legend

- LOT OR DIVISION
- EXIST. CURB OR B.A.R. OR C&G.P.A.
- EXIST. TRAIL / FOREST LANE
- EXIST. WETLAND
- WETLAND BUFFER
- STREAM BUFFER
- EXIST. STRUCTURE / REMNANT

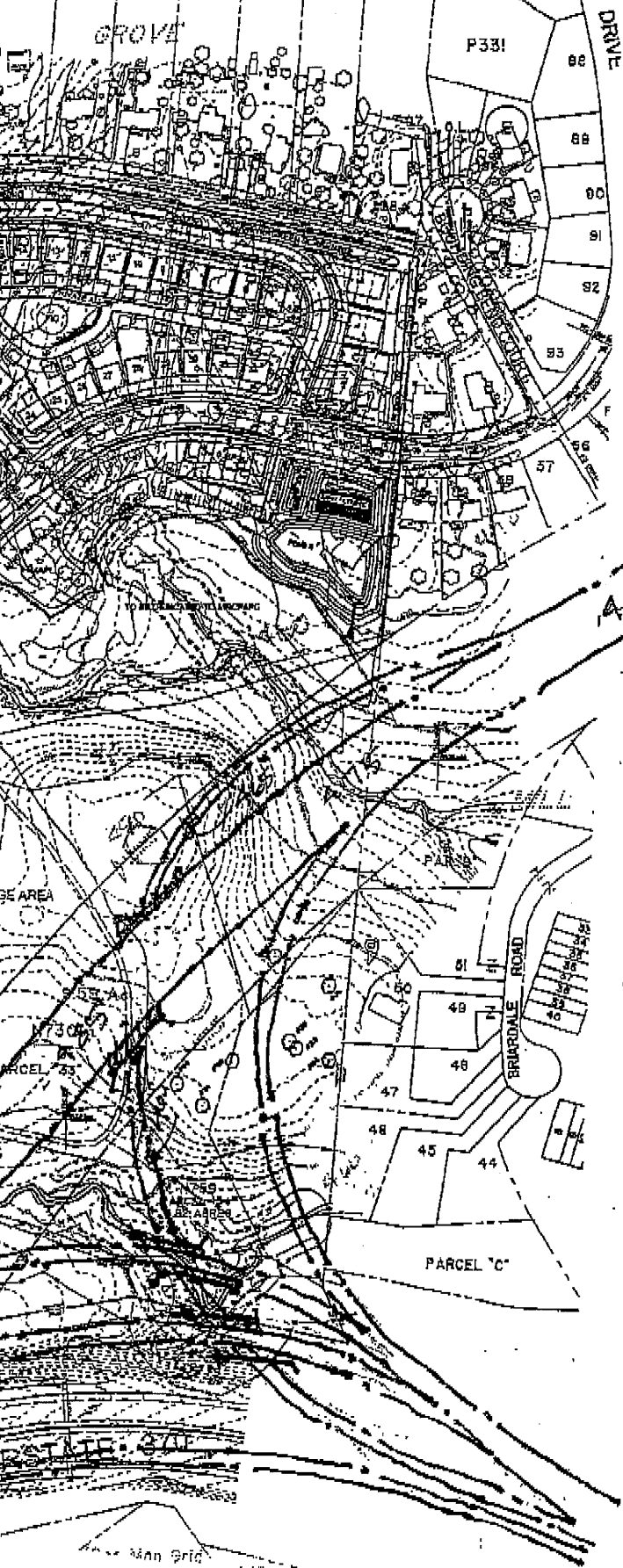
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2	11/03/04	ADDED TOPOGRAPHIC DATA	GC
3	11/03/04	ADDED TOPOGRAPHIC DATA	GC
4	11/03/04	ADDED TOPOGRAPHIC DATA	GC
5	11/03/04	ADDED TOPOGRAPHIC DATA	GC
6	11/03/04	ADDED TOPOGRAPHIC DATA	GC
7	11/03/04	ADDED TOPOGRAPHIC DATA	GC
8	11/03/04	ADDED TOPOGRAPHIC DATA	GC
9	11/03/04	ADDED TOPOGRAPHIC DATA	GC
10	11/03/04	ADDED TOPOGRAPHIC DATA	GC
11	11/03/04	ADDED TOPOGRAPHIC DATA	GC
12	11/03/04	ADDED TOPOGRAPHIC DATA	GC
13	11/03/04	ADDED TOPOGRAPHIC DATA	GC
14	11/03/04	ADDED TOPOGRAPHIC DATA	GC
15	11/03/04	ADDED TOPOGRAPHIC DATA	GC
16	11/03/04	ADDED TOPOGRAPHIC DATA	GC
17	11/03/04	ADDED TOPOGRAPHIC DATA	GC
18	11/03/04	ADDED TOPOGRAPHIC DATA	GC
19	11/03/04	ADDED TOPOGRAPHIC DATA	GC
20	11/03/04	ADDED TOPOGRAPHIC DATA	GC
21	11/03/04	ADDED TOPOGRAPHIC DATA	GC
22	11/03/04	ADDED TOPOGRAPHIC DATA	GC
23	11/03/04	ADDED TOPOGRAPHIC DATA	GC
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25	11/03/04	ADDED TOPOGRAPHIC DATA	GC
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27	11/03/04	ADDED TOPOGRAPHIC DATA	GC
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29	11/03/04	ADDED TOPOGRAPHIC DATA	GC
30	11/03/04	ADDED TOPOGRAPHIC DATA	GC
31	11/03/04	ADDED TOPOGRAPHIC DATA	GC
32	11/03/04	ADDED TOPOGRAPHIC DATA	GC
33	11/03/04	ADDED TOPOGRAPHIC DATA	GC

FIT →

PLATE B MD 20060117-0048

← FIT

WASHINGTON GROVE



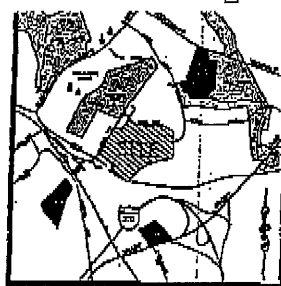
GE AREA

PARCEL 23

PARCEL "C"

← FIT

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 INFORMATION MANAGEMENT, 4800 WASHINGTON AVENUE, WASHINGTON,
 DC 20007.



VICINITY MAP SCALE: 1"=2000'

- GENERAL NOTES**
1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE MARYLAND STATE DESIGN SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.
 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

ITEM	DESCRIPTION	QUANTITY	UNIT	PRICE
1.00	GRAVEL	1000	CU YD	100.00
2.00	CONCRETE	500	CU YD	500.00
3.00	ASPHALT	200	CU YD	200.00
4.00	CEMENT	100	TONS	100.00
5.00	STEEL	50	TONS	500.00
6.00	BRICK	10000	SQ YD	1000.00
7.00	PAINT	100	GALES	100.00
8.00	LANDSCAPING	100	SQ YD	100.00
9.00	UTILITIES	100	FEET	100.00
10.00	CONCRETE	100	CU YD	100.00
11.00	ASPHALT	100	CU YD	100.00
12.00	CEMENT	100	TONS	100.00
13.00	STEEL	100	TONS	100.00
14.00	BRICK	10000	SQ YD	1000.00
15.00	PAINT	100	GALES	100.00
16.00	LANDSCAPING	100	SQ YD	100.00
17.00	UTILITIES	100	FEET	100.00
18.00	CONCRETE	100	CU YD	100.00
19.00	ASPHALT	100	CU YD	100.00
20.00	CEMENT	100	TONS	100.00
21.00	STEEL	100	TONS	100.00
22.00	BRICK	10000	SQ YD	1000.00
23.00	PAINT	100	GALES	100.00
24.00	LANDSCAPING	100	SQ YD	100.00
25.00	UTILITIES	100	FEET	100.00
26.00	CONCRETE	100	CU YD	100.00
27.00	ASPHALT	100	CU YD	100.00
28.00	CEMENT	100	TONS	100.00
29.00	STEEL	100	TONS	100.00
30.00	BRICK	10000	SQ YD	1000.00
31.00	PAINT	100	GALES	100.00
32.00	LANDSCAPING	100	SQ YD	100.00
33.00	UTILITIES	100	FEET	100.00
34.00	CONCRETE	100	CU YD	100.00
35.00	ASPHALT	100	CU YD	100.00
36.00	CEMENT	100	TONS	100.00
37.00	STEEL	100	TONS	100.00
38.00	BRICK	10000	SQ YD	1000.00
39.00	PAINT	100	GALES	100.00
40.00	LANDSCAPING	100	SQ YD	100.00
41.00	UTILITIES	100	FEET	100.00
42.00	CONCRETE	100	CU YD	100.00
43.00	ASPHALT	100	CU YD	100.00
44.00	CEMENT	100	TONS	100.00
45.00	STEEL	100	TONS	100.00
46.00	BRICK	10000	SQ YD	1000.00
47.00	PAINT	100	GALES	100.00
48.00	LANDSCAPING	100	SQ YD	100.00
49.00	UTILITIES	100	FEET	100.00
50.00	CONCRETE	100	CU YD	100.00
51.00	ASPHALT	100	CU YD	100.00
52.00	CEMENT	100	TONS	100.00
53.00	STEEL	100	TONS	100.00
54.00	BRICK	10000	SQ YD	1000.00
55.00	PAINT	100	GALES	100.00
56.00	LANDSCAPING	100	SQ YD	100.00
57.00	UTILITIES	100	FEET	100.00
58.00	CONCRETE	100	CU YD	100.00
59.00	ASPHALT	100	CU YD	100.00
60.00	CEMENT	100	TONS	100.00
61.00	STEEL	100	TONS	100.00
62.00	BRICK	10000	SQ YD	1000.00
63.00	PAINT	100	GALES	100.00
64.00	LANDSCAPING	100	SQ YD	100.00
65.00	UTILITIES	100	FEET	100.00
66.00	CONCRETE	100	CU YD	100.00
67.00	ASPHALT	100	CU YD	100.00
68.00	CEMENT	100	TONS	100.00
69.00	STEEL	100	TONS	100.00
70.00	BRICK	10000	SQ YD	1000.00
71.00	PAINT	100	GALES	100.00
72.00	LANDSCAPING	100	SQ YD	100.00
73.00	UTILITIES	100	FEET	100.00
74.00	CONCRETE	100	CU YD	100.00
75.00	ASPHALT	100	CU YD	100.00
76.00	CEMENT	100	TONS	100.00
77.00	STEEL	100	TONS	100.00
78.00	BRICK	10000	SQ YD	1000.00
79.00	PAINT	100	GALES	100.00
80.00	LANDSCAPING	100	SQ YD	100.00
81.00	UTILITIES	100	FEET	100.00
82.00	CONCRETE	100	CU YD	100.00
83.00	ASPHALT	100	CU YD	100.00
84.00	CEMENT	100	TONS	100.00
85.00	STEEL	100	TONS	100.00
86.00	BRICK	10000	SQ YD	1000.00
87.00	PAINT	100	GALES	100.00
88.00	LANDSCAPING	100	SQ YD	100.00
89.00	UTILITIES	100	FEET	100.00
90.00	CONCRETE	100	CU YD	100.00
91.00	ASPHALT	100	CU YD	100.00
92.00	CEMENT	100	TONS	100.00
93.00	STEEL	100	TONS	100.00
94.00	BRICK	10000	SQ YD	1000.00
95.00	PAINT	100	GALES	100.00
96.00	LANDSCAPING	100	SQ YD	100.00
97.00	UTILITIES	100	FEET	100.00
98.00	CONCRETE	100	CU YD	100.00
99.00	ASPHALT	100	CU YD	100.00
100.00	CEMENT	100	TONS	100.00

PERMITS TABLE

PERMIT TYPE	DESCRIPTION	STATUS
1.00	CONCRETE	APPROVED
2.00	ASPHALT	PENDING
3.00	CEMENT	APPROVED
4.00	STEEL	PENDING
5.00	BRICK	APPROVED
6.00	PAINT	PENDING
7.00	LANDSCAPING	APPROVED
8.00	UTILITIES	PENDING
9.00	CONCRETE	APPROVED
10.00	ASPHALT	PENDING
11.00	CEMENT	APPROVED
12.00	STEEL	PENDING
13.00	BRICK	APPROVED
14.00	PAINT	PENDING
15.00	LANDSCAPING	APPROVED
16.00	UTILITIES	PENDING
17.00	CONCRETE	APPROVED
18.00	ASPHALT	PENDING
19.00	CEMENT	APPROVED
20.00	STEEL	PENDING
21.00	BRICK	APPROVED
22.00	PAINT	PENDING
23.00	LANDSCAPING	APPROVED
24.00	UTILITIES	PENDING
25.00	CONCRETE	APPROVED
26.00	ASPHALT	PENDING
27.00	CEMENT	APPROVED
28.00	STEEL	PENDING
29.00	BRICK	APPROVED
30.00	PAINT	PENDING
31.00	LANDSCAPING	APPROVED
32.00	UTILITIES	PENDING
33.00	CONCRETE	APPROVED
34.00	ASPHALT	PENDING
35.00	CEMENT	APPROVED
36.00	STEEL	PENDING
37.00	BRICK	APPROVED
38.00	PAINT	PENDING
39.00	LANDSCAPING	APPROVED
40.00	UTILITIES	PENDING



Dewberry
 Dewberry & Davis, LLC
 201 Perry Parkway, Suite 1
 Gaithersburg, MD 20878-2140
 (301) 948-4300 Fax: (301) 578-7607

PRELIMINARY SUBDIVISION PLAN 1-02022
 DEVELOPMENT OF PHASE 01
CASEY PROPERTY @ MILL CREEK
 INTERCHANGE AREA, RESERVED
 5TH ELECTION DISTRICT
 MONTGOMERY COUNTY, MARYLAND

*David Furman, Council Member
Traffic & Safety*



*Al Carr, Council Member
Finance & Land Use Planning*

*Leanne Pfautz, Council Member
Parks & Infrastructure*

*Ken Goldsmith, Council Member
Revitalization & Strategic Planning*

March 29, 2006

Kitty L. Raufaste, Mayor

MD 20060119-0048

Ms. Linda C. Janey, J.D.
Director
State Clearinghouse
Maryland Dept of Planning
Room 1104
301 West Preston St
Baltimore, MD 21201

Note:
Please see "Record of Responses to
Public Comments" for responses to
this enclosure

Dear Ms Janey:

The Town of Kensington appreciates the opportunity to express its views on the proposed Inter-County Connector. After preliminary review of the environmental impact statements, we have concerns about the potential for significantly increased traffic volume in and around our Town, especially along Connecticut Avenue and on the Beltway. Many of the major intersections along Connecticut Avenue are already at capacity. We have worked over many years to reclaim what increasing traffic counts have already taken from our small historic community. Any considerable increase in traffic volume would not only make Connecticut Avenue and its feeder roads unmanageable, it would erode our surrounding natural environment and parkland, diminish further the quality of life for our residents, and hamper our long-term efforts to establish Kensington as a thriving center for business and the arts. We believe that transportation monies would be better spent in expanded MARC train service, Metro enhancements, and intersection improvements for cars and pedestrians.

Again, the Town Council of Kensington appreciates the opportunity to provide comment.

Sincerely,

Kitty L. Raufaste
Mayor

#	Comment	Response
M-NCPPC Prince George's County		
1	<p>Additional consideration should be given to Environmental Stewardship Project site ID 16 - Pedestrian/Bicycle Trail along Old Gunpowder Road. The ES Concept in table VI-6 recognizes the important connection from Fairland Regional Park to MD 198. Equally important, if not more so, is to complete the section of trail from Denim Road to Briggs Chaney Road along Old Gunpowder Road. This section will make the trail contiguous with the existing trails to Beltsville Community Park. The completion of one additional trail segment south of the Beltsville Community Park will create a contiguous trail via the Anacostia Trail System from Laurel to Bladensburg and eventually to Washington, D.C.</p>	<p>The Lead Agencies recognize the importance of bicycle connectivity in this area, and an Environmental Stewardship project will be (Attachment A) constructed along part of this road section. The Lead Agencies have agreed to construct approximately 14,500 linear feet of Class I pedestrian/bicycle trail (8' wide) with paved shoulders to further the County's goal of providing a continuous trail from Bladensburg to Laurel consistent with the Anacostia Heritage Trails Area Plan. The trail will connect to a trail planned by Prince George's County along the remaining sections of this roadway. Portions are planned for construction in the near future and the Lead Agencies will continue to coordinate with the County to construct the remaining sections.</p> <p>As described in the ROD, other important features of the ICC bicycle/pedestrian plan are connections for bicyclists and pedestrians to three transit stations; connections to other non-motorized trail systems; and improved access to bus transit in the Study Area. See Figure 3 in this ROD.</p>
2	<p>Construction of an east to west recreational trail with the ICC would benefit residents by creating more recreational opportunities and mapping access to inter- and intra-county park facilities. This is especially true in Prince George's County for people who live east of I-95, US 1, or Baltimore-Washington Parkway, where an east-west trail will enable them to access Fairland Regional Park without a motor vehicle.</p>	<p>The Lead Agencies agree that east west bicycle connectivity is important in the Study Area. The ICC study includes an overall east west bicycle and pedestrian plan that uses portions of the ICC as well as other existing or planned routes to connect the east and west ends of the Study Area. The plan is described in the ROD.</p>
3	<p>Though most of the proposed sites for stream restoration and wetland creation are not located on M-NCPPC property, we support efforts by the State Highway Administration to improve water quality and habitat of the Little Paint Branch and Paint Branches, and Indian Creek.</p>	<p>The Lead Agencies acknowledge this comment and look forward to continuing our ongoing coordination with members of your organization as these important projects are implemented.</p>



MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101

PI-FC-A-S

Robert L. Ehrlich, Jr.
Governor

Kendal P. Philbrick
Secretary

Michael S. Steele
Lt. Governor

April 11, 2006

Jonas A. Jacobson
Deputy Secretary

Mr. Wesley Mitchell
Project Manager
Office of Planning and Preliminary Engineering
Maryland State Highway Administration
707 N. Calvert Street
Mailstop C301
Baltimore, MD 21202

Re: Intercounty Connector
Final Environmental Impact Statement/Final Section 4(f) Evaluation

Dear Mr. Mitchell:

The Maryland Department of the Environment (MDE) has completed its review of the Final Environmental Impact Statement/Final Section 4(f) Evaluation (EIS) for the Intercounty Connector (ICC), I-270 to US1, in Montgomery and Prince George's Counties. The ICC is a proposed multi-modal east-west facility to link existing and planned development areas between the I-270 and the I-95/US1 corridors. The No-Action Alternative and two build alternatives are evaluated in the EIS: (1) the Corridor 1 (Master Plan) Alternative and (2) the Corridor 2 (Northern) Alternative.

The Department commends the State Highway Administration and its team of consultants for the extraordinary efforts in preparing a comprehensive, in-depth analysis of the alternatives evaluated in the EIS. During the course of the ICC study, the extensive agency comments and requests for additional information on this complex and controversial project have been handled professionally and expeditiously.

1

As a Cooperating Agency in the current ICC study along with the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers, MDE has committed to play an active role in the development of the ICC study and to timely review and decision making on all project documents and materials. The Department has actively participated in the Interagency Working Group meetings, the Principals (+1) meetings, and numerous other meetings and field visits associated with the project study. In addition, MDE provided comments and concurrence on the project Purpose and Need statement, concurrence on the Alternates Retained for Detailed Study package, and detailed comments on the Natural Environmental Technical Report, the Preliminary Draft and Draft EIS, and the Draft Preferred Alternative and Conceptual Mitigation Package (PACM). Based on its review of the revised PACM, which constitutes Chapter VII of the Final EIS, MDE concurred with the selection of Corridor 1 as the preferred Alternative on October 6, 2005.

2

Throughout the course of the ICC study, MDE has stressed the importance of avoidance and minimization of impacts to wetlands and water quality, particularly within the Paint Branch, a Use III natural trout stream, watershed. Extensive measures have been incorporated into the proposed project to avoid and minimize impacts to nontidal wetlands and waterways resources, including impacts to the 100-year nontidal floodplain. These measures include minimization of the corridor footprint through the use of retaining walls, steeper slopes, and narrower median widths; bridging of stream crossings; and innovative stormwater management and advanced water quality treatment that exceed State requirements.

3

As noted previously, MDE provided detailed comments on the Draft EIS and on the Preliminary Final EIS. The Department has determined that its comments on these documents have been addressed in the Final EIS.

4

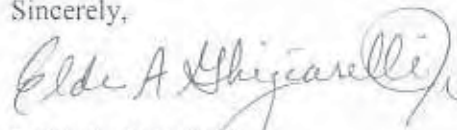
Finally, the Department wishes to acknowledge the final report for the Project-Level Conformity Determination for the ICC project which was released for public review and comment in March, 2006. This project-level Particulate Matter 2.5 (PM 2.5) Conformity Determination for the ICC was prepared in response to EPA amendments to the Transportation Conformity Rule dated March 10, 2006. The analysis concludes that the proposed ICC will neither cause nor contribute to violations of the new air quality standard for PM 2.5.

5

The Department reviewed and provided comments on this Report prior to its release for public review. MDE's comments are addressed in the final report. Accordingly, the Department has no additional comments on the PM 2.5 analysis.

In summary, MDE looks forward to continuing participation in the ICC study process and to fulfilling its role as a Cooperating Agency. If you have any questions, please contact me at (410) 537-3763.

Sincerely,



Elder A. Ghigiarelli, Jr.
Deputy Administrator
Wetlands and Waterways Program

EAGJr:ema

cc: Stephen Pattison
Bob Summers
Gary Setzer
Adam Snyder
Diane Franks
Julie Oberg

#	Comment	Response
Maryland Department of Environment (MDE)		
1	The Department commends the State Highway Administration and its team of consultants for the extraordinary efforts in preparing a comprehensive, in-depth analysis of the alternatives evaluated in the EIS. During the course of the ICC study, the extensive agency comments and requests for additional information on this complex and controversial project have been handled professionally and expeditiously.	The Lead Agencies wish to acknowledge Maryland Department of the Environment's (MDE's) position that, throughout the course of the ICC study, extensive agency comments and requests for additional information on this complex and controversial project have been handled professionally and expeditiously.
2	Based on its review of the revised PACM, which constitutes Chapter VII of the Final EIS, MDE concurred with the selection of Corridor 1 as the preferred Alternative on October 6, 2005.	The Lead Agencies acknowledge MDE's role as a Cooperating Agency throughout the ICC study leading to its concurrence on Corridor 1 as the Preferred Alternative on October 6, 2005.
3	Throughout the course of the ICC study, MDE has stressed the importance of avoidance and minimization of impacts to wetlands and water quality, particularly within the Paint Branch, a Use III natural trout stream, watershed. Extensive measures have been incorporated into the proposed project to avoid and minimize impacts to nontidal wetlands and waterways resources, including impacts to the 100-year nontidal floodplain. These measures include minimization of the corridor footprint through the use of retaining walls, steeper slopes, and narrower median widths; bridging of stream crossings; and innovative stormwater management and advanced water quality treatment that exceed State requirements.	The Lead Agencies acknowledge that MDE has continued to stress the importance of avoidance and minimization of impacts to wetlands and water quality, with close attention paid to the Paint Branch watershed. The Lead Agencies recognize that it is MDE's opinion that extensive measures have been incorporated into the proposed project to avoid and minimize impacts to wetlands, waterways and 100-year floodplains, such as: effectively using retaining walls to reduce the corridor footprint; designing steeper slopes and narrower median widths; bridging stream crossings; and incorporating innovative storm water management and advanced water quality which exceeded State requirements.
4	MDE provided detailed comments on the Draft EIS and on the Preliminary Final EIS. The Department has determined that its comments on these documents have been addressed in the Final EIS.	The Lead Agencies wish to acknowledge the MDE's position that all comments on the Preliminary Final EIS were addressed in the Final EIS.
5	The Department wishes to acknowledge the final report for the Project-Level Conformity Determination for the ICC project which was released for public review and comment in March, 2006. This project-level Particulate Matter 2.5 (PM 2.5) Conformity Determination for the ICC was prepared in response to EPA amendments to the Transportation Conformity Rule dated March 10, 2006. The analysis concludes that the proposed ICC will neither cause nor contribute to violations of the new air quality standard for PM 2.5.	The Lead Agencies recognize that all comments were addressed on the final report for Project-Level Particulate Matter 2.5 (PM 2.5) Conformity Determination, which concludes that the proposed ICC will neither cause nor contribute to violations of the new air quality standard for PM 2.5.

**Attachment C -
Post Final EIS Refinements**

Attachment C - Post Final EIS Refinements

Refinement Number	FEIS Plate Number	Location	Source of Modification	Approximate Change to Impacts														Cost (\$) Millions ¹	Description		
				Wetlands (acres)	Wetland Buffer (acres)	Waters of the US (Ephemeral - linear feet)	Waters of the US (Perennial/ Intermittent - linear feet)	Floodplain (acres)	Parks (acres)	Specimen Tree Impacts (each)	Forest Impacts (acres)	FIDS Impacts Direct/Indirect/Total (acres)	RTE Impacts (acres/ habitat)	Community Impacts	Cultural Resources	Noise and Air	Right of Way (acres)			Displacements (each)	
A.1	6	Overhill Road	SHA Right of Way Division	0	0	0	0	0	0	0	0	-0.67	0/0/0	0	Reduced R/W take from seven properties	Minor Change in LOD – Previously Identified Low Potential Area - No Additional Impacts	No air/noise impacts	-1.28	0	-\$0.30	Overhill Road would be reconstructed/constructed to provide access to Cashell Estates properties. In the FEIS, the portion of existing Overhill Road that was shown being reconstructed was centered on the existing Overhill Road right of way. Due to the additional width of the new typical section (designed to meet Montgomery County standards), as well as the additional width needed for erosion and sediment control, the proposed right of way was shown impacting the properties on the east side of existing Overhill Road. By shifting the new roadway to the west slightly, closer to the ICC and onto properties that are scheduled to be displaced by the ICC, strip takes can be eliminated for five properties and reduced for two properties.
A.2	13 and 14	MD 97 Interchange	Safety Improvements	0	0	0	0	0	0	1	1.14	0/0/0	0	No changes near communities	Minor Change in LOD – Previously Identified Low Potential Area - No Additional Impacts	No air impacts. Minor changes in noise levels. No changes in barriers.	0.87	0	\$0.95	In the FEIS, the ICC at MD 97 interchange was shown with two exits from both directions of the ICC (one for Northbound MD 97 and one for Southbound MD 97). During the safety study process performed by SHA concurrently with the development and review of the FEIS, the potential to combine these dual exits into single exit points was studied. While the FEIS interchange configuration was in conformance with AASHTO, it was determined by the safety study process that it would be desirable (based on both AASHTO preferences and traffic operations/signing) to combine the exits into single exit points.	
A.3	2	Metro Access Road	Safety Improvements	0	-0.001	0	0	0.001	0	2	1.25	0/0/0	0	No changes near communities	Reduction or No Change in LOD – No Additional Impacts	No air impacts. Minor changes in noise levels. No changes in barriers.	2.44	0	\$3.60	In the FEIS, the ICC at Metro Access Road/ Shady Grove Road Interchange was shown with two mainline lanes through the interchange versus the three lanes found elsewhere on the project. This configuration was based on high entering and exit volumes from ICC to the Metro Access Interchange. The safety study process performed by SHA identified this configuration as not being in conformance with the basic number of lanes criteria. While the configuration as shown in the FEIS did not show deficiencies in the traffic simulation, there was a desire of the team to conform to the basic number of lanes criteria. Further traffic simulations and study determined that the third thru lane in each direction would be beneficial to traffic operations in the near term, conform to AASHTO criteria, and would provide the flexibility to accommodate shifting traffic patterns within the interchange in the future with minimal capital expense.	
A.4	2	Metro Access Road	Design Exception Review	0	0	0	0	0	0	0	0.05	0/0/0	0	No changes near communities; slight ramp shift (10') to the north	Minor Change in LOD – Within ROW – No Additional Impacts	No air/noise impacts	0	0	\$0.00	During a design review of the FEIS, Ramp F1 in the Metro Access Road interchange was found to contain a curve that did not meet AASHTO minimum curve length design criteria. The proposed refinement corrects this deficiency by a minor realignment of the ramp.	
A.5	1	MD 355	Safety Improvements	0	0	0	0	0	0	0	0	0/0/0	0	Change in ramp configuration/mod. of cut/fill limits; no change near communities	Minor Change in LOD – Within ROW – No Additional Impacts	No air/noise impacts	0	0	\$0.10	As part of the SHA performed safety process, a study was conducted to determine alternate designs for the merging of Ramps L and M within the Metro Access Interchange. In the FEIS, Ramp M was shown merging with Ramp L using a yield condition, which would be undesirable from a traffic operations standpoint. The safety study revealed that a minor revision in ramp alignments at MD 355 would allow reconfiguration of the proposed signal to allow a right turn from Ramp L, in addition to a free right turn from Ramp M. This configuration allows the two ramps to remain separated, thereby eliminating the need for a yield or weaving condition.	
A.6	6	ICC Station 174+00, Mill Creek Stream Valley Park	Regulatory Agency	0	0.14	0	0	0.08	0.05	0	0.05	0/0/0	0	No change near communities; pedestrian passage added to culvert configuration	Minor Change in LOD – Within ROW – No Additional Impacts	No air/noise impacts	0.05	0	\$0.00	During review of the FEIS, SHA in coordination with the regulating agencies studied numerous configurations of bridges and culverts at Station 174+00. At this location, the focus of the discussions was the appropriate method of crossing the tributary to Mill Creek and the two seeps that supply water to downstream wetlands. In addition, M-NCPPC desired that pedestrian passage be accommodated at this location as part of a future trail system. After review of the studies, it was determined that twin box culverts would be the appropriate solution at this location. One box culvert would carry the stream, while a second shorter culvert would serve as pedestrian and deer passage while also carrying flood flows. Geotechnical techniques would be used to control the seeps and allow the water to continue to feed the downstream wetlands.	

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				Wetlands (acres)	Wetland Buffer (acres)	Waters of the US (Ephemeral - linear feet)	Waters of the US (Perennial/ Intermittent - linear feet)	Floodplain (acres)	Parks (acres)	Specimen Tree Impacts (each)	Forest Impacts (acres)	FIDS Impacts Direct/Indirect/Total (acres)	RTE Impacts (acres/ habitat)	Community Impacts	Cultural Resources	Noise and Air	Right of Way (acres)			Displacements (each)	
A.7	2	ICC Station 114+58 to Station 159+66	Design Exception Review	0	0	0	0	0	0	0	0	0	0/0/0	0	No change near communities	Minor Change in LOD - Within ROW - No Additional Impacts	No air impacts. Minor changes in noise levels. No changes in barriers.	0	0	\$0.00	The safety study process performed by SHA identified two curves on the ICC between Station 114+58 and Station 159+66 that did not meet AASHTO curve length criteria. The two curves would be removed and replaced with one long curve meeting AASHTO length criteria. The revision to the roadway baseline would not be significant and requires no additional impacts or right of way.
A.8	14	MD 97	Community	0	0	0	0	0	0	0	-0.06	0/0/0	0	Reduced impacts to visual buffer between ICC & Park Lake Dr. Community	Reduction or No Change in LOD - No Additional Impacts	No air impacts. Minor changes in noise levels. No changes in barriers.	-1.15	0	\$0.00	Through coordination with the local communities at MD 97, a request was received to review the potential to reduce the number of pedestrian crossings of Ramps associated with the shared use path on the west side of MD 97. The SHA reviewed this request and determined that it would be feasible to shift Ramps E and F such that a single intersection with MD 97 is formed, thereby reducing the number of ramp crossings on the pedestrian facility. In this manner the crossing would also take place at a signalized intersection. The alignment revision did not require a change in AASHTO design speeds and had little impact on the traffic operations of the interchange.	
A.9	6	Mill Creek Stream Valley Park, Station 174+50	Remnant wetland study	0.20	0.26	0	0	0	0	0	0	0/0/0	0	No change	Reduction or No Change in LOD - No Additional Impacts	No air/noise impacts	0	0	\$0.00	Impact to a seep within the limits of disturbance will cut off the hydrology to the remaining wetland system 1H. This is a change in impact analysis, not a change in the design shown in the FEIS.	
A.10	14	MD 97 Station 202+00	November 2005 Jurisdictional Determination	-0.21	-0.12	0	0	0	0	0	0	0/0/0	0	No change	Minor Change in LOD - Within ROW - No Additional Impacts	No air/noise impacts	0	0	\$0.00	The jurisdictional determination conducted in November 2005 reduced the size of the wetland 1FF, resulting in a decrease of impacts. This is a change in impact analysis, not a change in the design shown in the FEIS.	
A.11	8	North Branch Stream Valley Station 312+00	GEC Design Review	-0.01	0	0	0	0	0	0	0	0/0/0	0	No Change	Reduction or No Change in LOD - No Additional Impacts	No air/noise impacts	0	0	\$0.00	An impact analysis after the FEIS was published, not a change in the design, illustrated that there was a complete avoidance of wetland 1T.	
A.12	12A	North Branch Stream Valley Station 328+00	GEC Design Review	0	0	0	130	0	0	0	0	0/0/0	0	No Change	Minor Change in LOD - Within ROW - No Additional Impacts	No air/noise impacts	0	0	\$0.00	An impact analysis was conducted after the FEIS was published. It was determined through coordination with the resource agencies that the oxbow along the tributary to the North Branch (stream 1Z) would be impacted or would need to be relocated.	
A.13	8	Muncaster Mill Road	Montgomery County Emergency Services	0	0	0	0	0	0	0	0	0/0/0	0	No Change	Minor Change in LOD - Within ROW - No Additional Impacts	No air/noise impacts	-0.41	0	\$0.44	Addition of Emergency Vehicle Access Ramps from Muncaster Mill Road to/from the ICC at the request of Montgomery County to improve incident response times. In conjunction with this addition, the access to the pedestrian trail was moved from the east side of MD 115 to the west side.	
A.14	1.2	I-370	GEC Design Review	0	0	0	0	0	0	0	0	0/0/0	0	No Change	Reduction or No Change in LOD - No Additional Impacts	No air/noise impacts	0	0	\$0.00	Median on I-370 was revised from 36' to 30' to eliminate the need to widen both the inside and outside of the existing bridges on I-370. This shift also takes advantage of the existing full width abutments in the existing median. In coordination with this revision, the west end limit of work was revised from Station 5022+00 to Station 5020+00.	
A.15	8	Avery Park Drive	Community Request	0	0	0	0	0	0	0	0	0/0/0	0	Berm and plantings will provide additional visual buffer	Minor Change in LOD - Previously Identified Low Potential Area - No Additional Impacts	No air/noise impacts	0	0	\$0.00	The limits of disturbance were modified to include a berm to be constructed in coordination with the Avery Park Drive Community association. The berm, requested by the community, will provide a visual buffer between the community and the ICC. The berm will be constructed partially on the residences' property using entry agreements.	
A.16	6	Redland Road	GEC Design Review	0	0	0	0	0	0	0	0	0/0/0	0	No Change	Minor Increase in LOD - Previously Tested - No Additional Impacts	No air/noise impacts	0	0	\$0.00	The limits of disturbance at the Shady Grove Presbyterian Church were modified slightly - the previous limits of disturbance ran through the middle of the existing SWM pond. The limits of disturbance were adjusted to include the entire pond. This work will be completed using a construction easement.	

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A.17	2	Shady Grove / Metro Access Road	GEC Design Review	0	0	0	0	0	0	0	0	0	0/0/0	0	No Change	Reduction or No Change in LOD - No Additional Impacts	No air/noise impacts	0	0	\$0.00	The limits of disturbance at the Shady Grove Road / Metro Access Road Interchange were reduced to more accurately reflect the expected limits of work vs. the FEIS which showed the limits of disturbance at the limits of the existing right of way.
A.18	6 and 13	Nedham Rd, Garrett Road, Sycamore Lane	GEC Design Review	0	0	0	0	0	0	0	0	0	0/0/0	0	Cul-de-sac at Sycamore Lane & modification of both cul-de-sacs at Garrett Road and Nedham Road improve turn around capabilities for the community and access to SWM facilities.	Minor Change in LOD - Previously Identified Low Potential Area - No Additional Impacts	No air/noise impacts	0.23	0	\$0.00	The radius of the Nedham Rd and Garrett Rd cul de sacs were increased to meet the county requested size. A cul de sac was added at Sycamore Lane.
A.19	14	MD 97	GEC Design Review	0	0	0	0	0	0	0	-1.97	0/0/0	0	Forest to remain will provide additional visual buffer	Reduction or No Change in LOD - No Additional Impacts	No air/noise impacts	0	0	\$0.00	The limits of disturbance were modified at MD 97, Ramp F right, to ensure preservation of an existing forest stand.	
A.20	14	MD 97	Community Request	0	0	0	0	0	0	0	0	0/0/0	0	Berm and plantings will provide additional visual buffer	Minor Change in LOD - Previously Identified Low Potential Area - No Additional Impacts	No air/noise impacts	0	0	\$0.00	The limits of disturbance were modified to include a berm to be constructed in coordination with the Brooke Manor Community association. The berm, requested by the community, will provide a visual buffer between the community and the ICC.	
A.21	2	Shady Grove Road and I-370 Interchange	Study to identify advance mitigation opportunities	0	0	0	0	0	0	0	0	0/0/0	0	No change	Reduction or No Change in LOD - No Additional Impacts	No air/noise impacts	0	0	\$0.00	An advanced reforestation site was identified in the southwest quadrant of the I-370/Shady Grove Road Interchange. This site was included in the FEIS LOD limits. This site will provide approximately 0.98 acres of reforestation credit for the project. Most of the site area is within existing SHA right-of-way. However, a portion of the southern edge runs along a WMATA property (tax map GS123 Parcel P284) as shown in the tax maps. SHA has an agreement with WMATA, because the resolved property map incorporates this property into the right-of-way of through highway.	
B.1	15	MD 28	GEC Design Review	0	0	0	0	0	0	0	-0.27	0/0/0	0	No change near communities	Reduction or No Change in LOD - No Additional Impacts	No air/noise impacts	-1.70	0	-\$0.80	Design refinements to tie construction to the existing roadway resulted in the MD 28 eastern limit of work being reduced approximately 430' and the western limit of work being reduced approximately 260'. The reconstruction of Wintergate Drive was reduced by 170'. Coordination with the MD 28 / MD 198 planning project reduced the limits of disturbance in the southwest quadrant by a maximum of 70', in southeast quadrant by approximately 170' and increased the limits of disturbance in the northeast quadrant by a maximum of 45'.	
B.2	15, 16, 17	ICC - mainline profile from Station 415+ to east of MD 182	GEC Design Review / Design exception Review	0	0	0	0	0	0	0	0	0/0/0	0	No change within Longmead community.	Change in grade in vicinity of Willow Grove	No air impacts. Minor changes in noise levels. Minor changes in barriers.	0	0	-\$2.00	Mainline profile raised a maximum of 8' and lowered a maximum of 4.4' between Station 415+00 and Station 482+00 to better balance earthwork, and improve ramp profile. This resulted in no changes to the limits of disturbance, but provides the opportunity to create an earth berm which increases the visual screening of the roadway from the Willow Grove property, which had been requested by the property owner. In accordance with the MOA, preliminary and final design of the berm and landscaping will be submitted to SHPO and the property owner for review and comment prior to implementation.	

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B.3	17	ICC / MD 182 Interchange	Safety Improvements	0	0	0	0	0	0	0	0	0	0/0/0	0	No change near Longmead community	Minor Increase in LOD - Previously Tested - No Additional Impacts	No air/noise impacts	0	0	\$0.20	Minor refinements made to MD 182 ramp curvature, approach/departure angles and profile for greater consistency with AASHTO criteria and for consistency throughout the project. These minor refinements created no changes in limits of disturbance, though a retaining wall was added right of Station 495+00 to avoid an increase in limits of disturbance.
B.4	17	MD 182 Layhill Local Park	GEC Design Review	0	0	0	-22	0	-0.22	0	-0.02	0/0/0	0	Reduced construction footprint, no change near communities	Reduction or No Change in LOD - No Additional Impacts	No air/noise impacts	-0.42	0	-\$0.12	Design refinements to tie construction to the existing roadway resulted in the MD 182 northern limit of work being reduced approximately 350' and the southern limit of work being reduced approximately 550'. MD 182 horizontal alignment north of station 305+00 realigned to tie-in more rapidly. Mainline profile between Station 504+00 and Station 524+00 raised a maximum of 2.3' and lowered a maximum of 3.4'. Limits of disturbance reduced due to limit of work reductions. Reduced impacts to Stream 2MA	
B.6b	19	Northwest Branch Park - Station 564+	Regulatory Agency	0	0	0	0	-0.04	-0.07	0	-0.01	0.001/0.012/0.013	0	No change near communities	Minor Change in LOD - Previously Identified Low Potential Area - No Additional Impacts	No air/noise impacts	0	0	\$0.00	Eastern abutment skewed on ICC bridge over Bonifant Road and Northwest Branch to better match existing contours and floodplain delineation. Overall limits of disturbance reduced within floodplain, though there is a minor increase on the south side of the bridge.	
B.8	20	Notley Road profile	GEC Design Review	0	0	0	0	0	0	0	0	0/0/0	0	Slight change in profile; No change near communities	Reduction or No Change in LOD - No Additional Impacts	No air/noise impacts	0	0	\$0.00	Notley Road profile refined to move sump off of bridge. This resulted in no changes to the limits of disturbance.	
B.9	20	ICC - mainline profile at Notley Road	GEC Design Review	0	0	0	0	0	0	0	0	0/0/0	0	Likely imperceptible change in noise level/barrier from Royal Forest Lane & Paula Lynn Drive	Reduction or No Change in LOD - No Additional Impacts	No air impacts. Minor changes in noise levels. Minor changes in barriers.	0	0	-\$2.50	Refinements to Notley Road profile noted above allowed for raising the ICC profile between Stations 614+00 to 652+00 a maximum of 8.9' and subsequently a reduction in waste material on the project. This resulted in no changes to the limits of disturbance.	
B.10	20, 25	ICC - Proposed trail from Notley Road to MD 650	Regulatory Agency/ GEC Design Review	0	0	0	0	0	0	0	0	0/0/0	0	Likely imperceptible change in noise level/barrier from Paula Lynn Dr.	Reduction or No Change in LOD - No Additional Impacts	No air impacts. Minor changes in noise levels. Minor changes in barriers.	0	0	\$0.00	Trail moved to south side of ICC from east of Notley Road to west of MD 650 to address Regulatory Agency concerns and enhance trail connectivity at MD 650. This resulted in no changes to the limits of disturbance.	
B.11	25	ICC / MD 650 Interchange	Safety Improvements	0	0	0	0	0	0	0	0.34	0.06/0.08/0.14	0	No change near communities	Minor Change in LOD - Previously Identified Low Potential Area - No Additional Impacts	No air/noise impacts	0.34	0	\$0.00	Minor refinements made to MD 650 ramp curvature, approach/departure angles and profile for greater consistency with AASHTO criteria and for consistency throughout project. This resulted in minor increases to the LOD. These minor increases occur along both ramps on the east side of MD 650. There are no associated park impacts.	
B.12	25	MD 650	GEC design review	0	0	0	0	0	0	0	-0.02	0.003/0/0.003	0	No change near communities	Minor Increase in LOD - Previously Tested - No Additional Impacts	No air/noise impacts	-2.88	-2	-\$3.23	Design refinements to tie construction to the existing roadway resulted in the MD 650 northern limit of work being reduced approximately 300' and the southern limit of work being reduced approximately 400'. Limits of disturbance reduced due to limit of work reductions. Two displacements were avoided in northwest quadrant.	

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B.14	26	ICC - Mainline profile adjustment between Station 695+ and Station 735+.	GEC Design Review	0	0	0	0	0	0	0	-0.53	-0.44/-0.42/-0.86	0	Likely imperceptible change in noise level/barrier from Spring Oak Estates	Reduction or No Change in LOD - No Additional Impacts	No air impacts. Minor changes in noise levels. Minor changes in barriers.	-0.53	0	-\$2.8	Mainline profile refined (raised a maximum of 14.7') between Good Hope and Paint Branch to better balance earthwork. Limits of disturbance decreased overall, though it increased by a small amount in some areas.
B.15	27	ICC - horizontal and vertical alignment adjustment from bridge crossing Gum Springs and Paint Branch to Countryside community.	GEC Design Review	0.01	0.01	0	0	0	0	0	0.27	0.001/0.004/0.005	0	Alignment shift away from Countryside Ct; likely imperceptible change in noise level/barrier from Countryside, Fairland Estates, Hardings Run communities	Minor Change in LOD - Previously Identified Low Potential Area - No Additional Impacts	No air impacts. Minor changes in noise levels. Minor changes in barriers.	0.27	0	-\$2.6	Horizontal and vertical refinement made to mainline to reduce length and height of retaining wall left of Station 760+00. This refinement pulled the ICC slightly away from the residences in Countryside (an 18' high wall had been proposed left of Station 760+00 immediately adjacent to the abutting residential parcels; whereas with the refinement a 12' wall 12' away from the property line is needed). The refinements also reduce the need for a retaining wall right of Station 766+00 and better balance the earthwork from Station 748+00 to 780+00 by raising the profile a maximum of 14.6'. The limits of disturbance increased in some areas and decreased in others. There is a slight increase of impact to wetland system 3M.
B.17	27	Station 756+00	Remnant wetland study	0.19	0.31	0	0	0	0	0	0	0/0/0	0	No change	Reduction or No Change in LOD - No Additional Impacts	No air/noise impacts	0	0	\$0.0	Impact to a seep within the limits of disturbance will cut off the hydrology to the remaining wetland system 3O. This is a change in impact analysis, not a change in the design shown in the FEIS.
B.19	27	Upper Paint Branch Stream Valley Park Sta 750+	FHWA Section 4(f) Determination	0.00	0	0	0	0	4.9	0	0	0/0/0	0	No change	Reduction or No Change in LOD - No Additional Impacts	No air/noise impacts	0	0	\$0.0	Consistent with the Section 4(f) Evaluation Addendum prepared in response to comments received on the FEIS/Section 4(f) Evaluation, the description of the Dedicated Transportation Area uses through the Upper Paint Branch Stream Valley Park have been modified. Three parcels on the eastern edge of the park were purchased with the intent of using them for parkland prior to the ICC alignment being shifted north in the park to avoid natural environmental impacts. As depicted in the Section 4(f) Addendum, these parcels are now being considered Section 4(f) resources.
C.3	28	EB ICC off-ramp to Briggs Chaney	Safety Improvements	0	0	0	0	0	0	0	0	0/0/0	0	No change	Reduction or No Change in LOD - No Additional Impacts	No air/noise impacts	0	0	\$0.50	The deceleration lane for the eastbound ICC to Briggs Chaney Road loop ramp was lengthened to provide a longer deceleration lane. Modification required additional impervious surface and a wider bridge over Ramp SE
C.4	28	NW quadrant of the ICC/US 29 interchange	Regulatory Agency	0	0	0	0	0	0	0	0	0/0/0	0	Conservation easement will provide protection for the existing vegetated buffer between the facility and the Avonshire community in perpetuity.	Reduction or No Change in LOD - No Additional Impacts	No air/noise impacts	0	0	\$0.00	A request was made by a Resource Agency to protect the existing wooded area between Ramps SW and SE and the Avonshire residential community by placing a conservation easement on the undisturbed portion of the property currently owned by SHA. This conservation easement will preserve 5 acres forest, 0.2 acres wetland, 0.4 acres wetland buffer and 480 linear feet of stream in perpetuity.
C.5	28	NE quadrant of the ICC/US 29 interchange	Developer	0	0	0	0	0	0	0	-0.08	0/0/0	0	No change	Minor Change in LOD in vicinity archaeological site 18MO609 - to be covered by Phase II investigation	No air/noise impacts	-0.10	0	\$0.00	An auto park developer requested a modification of the limits of disturbance in the NE quadrant of the interchange so that a fire loop road, required by Montgomery County, could be provided around his proposed new dealership. SHA agreed to the requested change and reduction in limits of disturbance, but required the developer to accommodate ICC drainage through this area with his improvements, and to work with SHA on two other parcels he owns east of here that may require ICC work on them.

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C.9	28	ICC at US 29 Interchange	Traffic Analysis	0	0	0	24	0	0	2	0.44	0/0/0	0	No change	Reduction or No Change in LOD – No Additional Impacts	No air/noise impacts	0.28	0	\$3.00	Ramps WS and NE were changed from single lane to two lanes in order to better accommodate heavy projected traffic volumes as well as potential future shifting traffic patterns within the ICC/US 29 interchange. This required adjustments in two other ramps (WS and SE), limit of grading lines and limits of disturbance lines in isolated areas, particularly north of the ICC near the existing regional pond and south of the pond adjacent to Tanglewood residences. No direct additional residential property impacts were caused, however the fill and limits of disturbance lines moved closer to their property line. The northern limits of disturbance change resulted in minor stream (3R), floodplain and forest impact increases.
C.10	28/29	SB US 29 to Fairland Road ramp	SHA/GEC	0	0	0	0	0	0	0	0	0/0/0	0	No change	Reduction or No Change in LOD – No Additional Impacts	No air/noise impacts	0.93	0	\$1.00	The previously noted future southbound US-29 off-ramp to Fairland Road has been added as an ICC improvement. This was recommended in order to allow the ICC and existing US-29/Fairland Road intersection to operate acceptably in the interim should the ICC be open to traffic before the US-29/Fairland Road grade separation and interchange is open.
C.11	29	US 29 improvements south of Fairland Road	SHA/GEC	0	0	0	0	0	0	0	0	0/0/0	0	No change	Minor Change in LOD – Within ROW – No Additional Impacts	No air/noise impacts	0	0	\$1.75	An auxiliary lane in both directions was added to US-29 between Fairland Road and the Randolph Road ramps as an interim solution, assuming the ICC is open to traffic before the US-29 improvements between Briggs Chaney and Randolph Road are constructed and open to traffic. These impacts were accounted for in the US-29 FEIS.
C.12	31	Briggs Chaney	Safety Improvements	0	0	0	0	0	0	0	0.06	0/0/0	0	Improved access to ICC on ramp from Gentry Ridge CT; minor realignment of bike trail tie-in to Briggs Chaney	Reduction or No Change in LOD – No Additional Impacts	No air/noise impacts	0.39	0	\$0.20	The ICC off-ramp intersection at Briggs Chaney Road was modified to better accommodate truck turning movements, and a realignment of the Briggs Chaney Road/on-ramp intersection, to align with Gentry Ridge Court, was made to avoid an access concern for these residences. Modification led to a slight change in the limit of grading and limits of disturbance line.
C.14	27	Station 783+00	Remnant wetland study	0.07	0.23	0	0	0	0	0	0	0/0/0	0	No change	Reduction or No Change in LOD – No Additional Impacts	No air/noise impacts	0	0	\$0.00	As a result of the remnant wetland study requested by the Regulatory Agencies, it was determined that the entire wetland system 3PA would be impacted. This is a change in impact analysis, not a change in the design shown in the FEIS.
C.15	32	Between Little Paint Branch Park and Old Gunpowder Road	SHA	0	0	0	0	0	0	0	0	0/0/0	0	No change	Reduction or No Change in LOD – No Additional Impacts	No air/noise impacts	0	0	\$0.15	This revision includes the addition of a section of bike trail along the south side of the ICC from Little Paint Branch Park (Sta. 887+) to Old Gunpowder Road.
D.1	32	ICC between Brigg's Chaney and Little Paint Branch	Regulatory Agency	0.07	0.18	0	0	0.49	0	0	-0.01	-0.81/-0.23/-1.04	0	No change	Minor Change in LOD – Within ROW – No Additional Impacts	No air impacts. Minor changes in noise levels. Minor changes in barriers.	0	0	\$0.60	Resource Agencies requested that the bridge over Little Paint Branch be raised to provide a minimum underclearance of at least 30 feet. Raising of the profile led to increasing the fill, limit of grading line and limits of disturbance in all four quadrants, as well as additional permanent wetland impacts to wetland 3X, particularly the two fingers to the north and south of the eastern bridge abutment. The modification was accomplished without an impact to the park property in the southeast quadrant, avoiding a new 4(f) impact.
D.3	33	NE quadrant of the ICC/ I-95 interchange.	Safety Improvements	0	0	0	0	0	0	0	0	0/0/0	0	No change	Minor Change in LOD – Within ROW – No Additional Impacts	No air and noise impacts	0.36	0	\$0.50	The potential weave from Ramp I-C to Ramp I-G was eliminated and the Ramp I-C gore moved further to the north on Ramp I-GG to eliminate this potential undesired movement. The modification required an increase in the limit of grading and the potential addition of a short retaining wall, but no change in limits of disturbance. Ramp I-C traffic will now proceed to Ramp I-GG (modified) and then north via the CD road to NB I-95. Ramp I-G traffic will be given the option to proceed directly onto I-95 or enter the CD road via Ramp I-GG (modified).

Attachment C - Post Final EIS Refinements

Refinement Number	FEIS Plate Number	Location	Source of Modification	Approximate Change to Impacts														Cost (\$ Millions) ¹	Description		
				Wetlands (acres)	Wetland Buffer (acres)	Waters of the US (Ephemeral - linear feet)	Waters of the US (Perennial/ Intermittent - linear feet)	Floodplain (acres)	Parks (acres)	Specimen Tree Impacts (each)	Forest Impacts (acres)	FIDS Impacts Direct/Indirect/Total (acres)	RTE Impacts (acres/ habitat)	Community Impacts	Cultural Resources	Noise and Air	Right of Way (acres)			Displacements (each)	
D.6	36	NE quadrant of the I-95/Old Gunpowder Road overpass.	SHA Right-of-Way	0	0	0	0	0	0	0	0	0	0/0/0	0	No change	Reduction or No Change in LOD - No Additional Impacts	No air and noise impacts	0	-1	-\$0.50	Upon further investigation, it was determined that the impact to the residential property in the northeast quadrant of the I-95/Old Gunpowder interchange was so minor that this property did not need to be acquired. The displacement of this residence was therefore removed.
D.7	33	I-95 at ICC	Traffic Analysis	0	0	0	0	0	0	0	0	0	0/0/0	0	No change	Reduction or No Change in LOD - No Additional Impacts	No air/noise impacts	0	0	\$0.00	Two I-95/ICC interchange ramps (Ramp I-K and Ramp I-A) were changed from single lane to two lanes to provide greater operational flexibility for the merging of these two ramps on a CD prior to merging with southbound I-95. This modification required minor adjustments in the alignment and pavement, but no change in the proposed location of the retaining wall adjacent to the bog.
D.8	37	I-95 Station 820-830	Jurisdictional Determination	0	0	-966	0	0	0	0	0	0	0/0/0	0	No change	Reduction or No Change in LOD - No Additional Impacts	No air/noise impacts	0	0	\$0.00	Ephemeral stream WYY was determined not to be jurisdictional during the January 2006 jurisdictional determination with the Regulatory Agencies. This is a change in impact analysis, not a change in the design shown in the FEIS.
D.9	39	I-95 Station 925-935	Jurisdictional Determination	0	0	0	-5	0	0	0	0	0	0/0/0	0	No change	Reduction or No Change in LOD - No Additional Impacts	No air/noise impacts	0	0	\$0.00	The jurisdictional limits of stream WOO were reduced during the January 2006 jurisdictional determination with the Regulatory Agencies. This is a change in impact analysis, not a change in the design shown in the FEIS.
E.6	40	ICC/US 1 interchange	Traffic Analysis	0	0	0	0	0.02	0	0	0	0	0/0/0	0	No change	Reduction or No Change in LOD - No Additional Impacts	No air and noise impacts	0	0	\$0.00	A modification to the continuous flow intersection's westernmost intersection was made that eliminated the need for a signal in the westbound direction. This movement has been replaced with a free flow right turn lane that will be merged back to westbound ICC just beyond the intersection.
Totals				0.32	1.01	-966	127	0.55	4.66	5	-0.04	-1.19/-0.55/-1.74	0					-2.31	-3	-1.86	

Footnotes

¹ Construction estimates are neat construction including contingency plus Right of Way including contingency.

**Attachment D -
The ICC Mitigation Package**

Attachment D: The ICC Mitigation Package

No.	Site Descriptor	Mitigation Benefit	Mitigation Description	Map ID #
Stream Restoration Sites				
1	IC-59	1,100 linear feet	IC-59 and IC-62 are located on the mainstem of Indian Creek just upstream and downstream of the Powder Mill Road crossing. The concept for IC-59 and IC-62 includes stream restoration efforts (gabion removal, berm removal, bank stabilization, floodplain creation, fish blockage removal, riparian buffer enhancement, and habitat enhancement).	5 and 6
2	IC-62	1,900 linear feet		
3	NW-160	11,000 linear feet	This site includes the mainstem of Northwest Branch from Bonifant Road downstream to Indian Springs Golf Course. A portion of Rolling Stone tributary that joins Northwest Branch within the project site would also be included. The concept for NWB includes the following stream restoration efforts: floodplain creation to provide energy dissipation of erosive flood flows, reduce erosive shear stresses, reduce channel incision, and increase infiltration and groundwater recharge; bank stabilization to provide energy dissipation of erosive flood flows, reduce erosive shear stresses, and reduce bank erosion and instream sedimentation; enhancing the riparian buffer; installation of woody debris and other types of instream cover and gravel channel material to enhance the benthic and fish habitats and communities.	1
4	PB-12B	4,500 linear feet	PB-12B is located on Hollywood Branch and flows southeasterly from where the stream goes under Laurie Drive to the confluence with Paint Branch in the Fairview Estates community. The concept for PB-12B includes stream restoration efforts (bank stabilization, floodplain creation, utility conflict resolution, fish blockage removal, and riparian buffer enhancement).	4

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No.	Site Descriptor	Mitigation Benefit	Mitigation Description	Map ID #
5	PB-119	1,000 linear feet	Site PB-119 is located on the mainstem of Good Hope tributary to Paint Branch. The limits for this site extend from approximately 300 feet upstream to 700 feet downstream of the Good Hope Road crossing of this stream. The concept for PB-119 includes the following stream restoration efforts: floodplain creation to provide energy dissipation of erosive flood flows, reduce erosive shear stresses, reduce channel incision, bank stabilization to provide energy dissipation of erosive flood flows, reduce erosive shear stresses, and reduce bank erosion and instream sedimentation; and installation of woody debris and other types of instream cover and gravel channel material to enhance the benthic and fish habitats and communities.	3
6	PB-8	1,200 linear feet	PB-8 is located in the Left Fork subwatershed of the Upper Paint Branch watershed. PB-8 is made up of two reaches. The western reach is located entirely within Upper Paint Branch Park. The concept for PB-8 includes stream restoration efforts (bank stabilization, floodplain creation, riparian buffer enhancement, fish blockage removal, and habitat enhancement).	2
Fish Passage Sites				
7	PB-93A	500 linear feet of blockage removal	This is a fish passage site located at an exposed sewer line between US 1 and the College Park Airport. The blockage can be seen from the footbridge located approximately 1,000 feet upstream of the confluence of Paint Branch with Indian Creek. The drop at this site is about 1.5 feet and at lower flows is a complete blockage to upstream fish passage.	3
8	RC-131	500 linear feet of blockage removal	RC-131 is located east of the intersection of Beach Drive and Pinehurst Parkway on the mainstem of Rock Creek within Rock Creek Park. The blockage is an exposed utility crossing that has a vertical drop of approximately one foot causing a depth of flow of approximately two inches at normal flow.	2

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No.	Site Descriptor	Mitigation Benefit	Mitigation Description	Map ID #
9	RC-131A	500 linear feet of blockage removal	RC-131A is located east of Beach Drive in the Candy Cane Park section of Rock Creek Park. This is a partial fish blockage caused by a concrete sewer encasement that is exposed at lower flow conditions. In addition to restoring fish passage over the blockage, other improvements slated for this site include streambank stabilization and riparian buffer improvement to improve stream habitat.	1
Wetland Creation Sites				
10	MR-5	19 acres	This site is an active cow pasture located at the intersection of Bethesda Church Road and Clarksburg Road within the floodplain of Bennett Creek.	Not Shown On Map
11	SC-2	21 acres	This site is located at the corner of Huntmaster Road and Brink Road within the floodplain of Goshen Branch. This site is also located across from the existing Hawkins wetlands creation site. The created wetlands could be hydrologically connected to the emergent wetlands on site and provide a riparian buffer to the stream.	Not Shown on Map
12	NW-128	3 acres	NW-128 is currently a ball field located in Northwest Branch Recreational Park. The site would be excavated 2'-3' to tap into groundwater or divert flows from Northwest Branch into the site. The ball field would be converted to a wetland/floodplain condition by removing the fill from the site.	2
13	PB-1	12 acres	PB-1 is located on the south side of Spencerville Road and east of Peach Orchard Road along a tributary to Paint Branch. The site begins as a farm pond located on the south side of the stream. The concept for this site is to create forested wetlands on the south side of the stream by excavating less than five feet to hydrologically connect to the stream and existing groundwater. The north side of the stream could be reforested with a mix of wetland and upland tree species. The pond would be removed as part of this concept to reduce thermal impacts to the stream.	3

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No.	Site Descriptor	Mitigation Benefit	Mitigation Description	Map ID #
14	SC-19	19 acres	This site is located east and west of Woodfield Road at the Great Seneca crossing. This site is situated in the floodplain of Great Seneca Creek and receives both surface water input and bank overflows that could support the hydrology of a created wetland.	Not Shown on Map
15	SC-21	6 acres	This site is located on the north side of Brink Road at the Great Seneca Creek crossing along the east bank of the stream. The hydrology for the created wetland would be supported by groundwater and the hydric soils that are mapped within the stream valley. Wildcat Branch, a tributary to Great Seneca Creek, is located just upstream of this site and is classified as Class III trout waters.	Not Shown on Map
16	NW-69	3 acres	NW-69 is located on the north side of Batchellors Forest Road across from Trotters Glen Golf Course in the headwaters of Batchellors Run. The concept for NW-69 includes the following efforts: grading and planting to create a forested wetland and spraying to eradicate multiflora rose. The concept for this site is to extend the existing wetland along the east side of the stream and plant the site with forested wetland species such as sycamore, spicebush and arrow-wood.	1
Water Quality Mitigation Sites				
17	PB-33	80 acres	This site is located in the Great Hope Manor community, adjacent to the Right Fork at Good Hope Road and Good Hope Drive. The concept includes cleaning up debris, adding infiltration trench and /or bioretention cells to the extent possible, retrofit of the existing riser to provide extended detention, expansion of the existing SWM pond next to the community center to provide extended detention and stabilization of an outfall channel to decrease sediment loads to Good Hope tributary.	2

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No.	Site Descriptor	Mitigation Benefit	Mitigation Description	Map ID #
18	PB-43	40 acres	Unvegetated outfall channel east of Timberlake Drive and Seibel Drive. The concept includes retrofitting existing outfall channel with grass swale, biofilter, or infiltration trench.	3
19	PB-46A	22 acres	Existing dry pond at west end of Perrywood Road. The concept is to convert a dry extended detention pond to attenuate flows without raising temperatures, including planting the riparian buffer and pond. Pond may need to expand into adjacent parkland to capture runoff for entire drainage area.	4
20	PB-114A	70 acres	Degraded stream channel at the south end of Eastway Drive in Peachwood Park. The concept includes evaluating alternatives previously developed by MCDEP and MWCOG to plan and construct an off-line extended detention facility to address one of the few remaining uncontrolled drainage areas contributing to Good Hope Tributary.	5
21	PB-49	134 acres	Uncontrolled runoff from tributary north of Rainbow Drive, east of Wembrough Street and west of Langside Street. The concept includes constructing a new dry extended detention pond to attenuate flows without raising temperatures and planting the riparian buffer and pond.	1
Floodplains				
22	General	Mitigation Commitment for impacts to Regulated Floodplains	Proposed parkland acquisition associated with stewardship opportunities and mitigation efforts for this project will further enhance floodplain values. Final hydrology and hydraulic design will be performed for the selected alignment during the final design process using final FEMA models, at which time structure type, span configuration, pier placement, etc. that cost effectively best fits the environment (total structure length, ROW limits, etc.) will be determined and coordinated with MDE as part of the MDE Non-tidal Wetlands and Waterways Construction Permit process. FEMA coordination will also be performed at that time to determine the impacts to regulated floodplains and floodways and potential mitigation measures.	Not Shown on Map

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No.	Station ID	Mitigation Benefit	Mitigation Description	Map ID #
Wildlife Passage				
23	I-370 Ramps (2 locations)	Wildlife Passage	Small mammal culverts would be located west of Shady Grove Road – Small Mammal Culverts are specially designed to accommodate small mammal passage. Some deer passage may be possible, depending on the final sizing. These culverts could include the use of a two-foot wide dry “shelf” alongside the waterway, which small mammals have been found to readily use, or the addition of a dry culvert cell alongside the culvert that carries the primary stream flow. These are generally proposed in areas where there is some nearby open space or habitat, but where a much larger deer culvert is not warranted because of expense, surrounding existing and proposed land use, or distance from another large deer crossing opportunity, such as deer culvert or bridge.	1
24	Sta.150+00	Wildlife Passage	Deer culvert would be located west of Shady Grove - Deer Culverts are specially designed to accommodate deer passage. Deer in the study area are extremely abundant and adaptable to the human landscape and have been found to use a wide variety of culverts for passage under existing roads. Based on discussions with the IAWG including MNCPPC, deer culverts will consist of rectangular culverts with a minimum size of 12 feet by 12 feet with a natural bottom. Minimal clearing will be 12 feet wide and 10 feet high. It is anticipated that one to two feet of sediment will accumulate within each culvert. Other culvert designs (round, arch) may also be considered as additional engineering efforts continue.	2
25	Sta. 173+00	Wildlife Passage	Deer Culvert would be located west of Redland Road (See Deer Culvert Description for Station 150+00)	3

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No.	Station ID	Mitigation Benefit	Mitigation Description	Map ID #
26	Sta. 207+00	Wildlife Passage	Hydraulic culvert would be located north of Garrett Road. Hydraulic Culverts are designed to accommodate hydraulic conditions; however, small mammal passage and some deer passage may be possible depending on the final sizing. Hydraulic culverts have been proposed in areas where there is likely to be a lack of any adjacent core habitat, or in areas where future development plans have been proposed. These hydraulic-only culverts will likely still provide some degree of safe passage to the local wildlife that exists in that immediate area. This likelihood is based on evidence of high wildlife usage of culverts in the study area and elsewhere in Maryland where no special design techniques were employed.	4
27	Sta. 240+00	Wildlife Passage	Bridge would be location northwest of Needwood Road and northeast of Garrett Road. A bridge structure would afford passage to all wildlife under the span. Studies will continue on these bridge crossings to determine if any enhancement techniques could be employed under the span to further encourage herptile and smaller mammal crossing. These techniques could include strategic placement of woody debris to help retain moisture	5
28	Sta. 276+00	Wildlife Passage	Deer culvert would be location southwest of Muncaster Mill Road (See Deer Culvert Description for Station 150+00).	6
29	Sta. 301+00	Wildlife Passage	Small mammal culvert would be located east of Muncaster Mill Road (See Small mammal culvert description for I-370 ramps).	7
30	Sta. 312+00	Wildlife Passage	Deer Culvert would be located east of Muncaster Mill Road (See Deer Culvert Description for Station 150+00).	8
31	Sta. 320+00	Wildlife Passage	Bridge would be located northwest of Promontory Court (See Bridge Description for Station 240+00).	9
32	Sta. 327+00	Wildlife Passage	Bridge would be located north of Promontory Court (See Bridge Description for Station 240+00).	10

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No.	Station ID	Mitigation Benefit	Mitigation Description	Map ID #
33	Sta. 360+00	Wildlife Passage	Small mammal culvert would be located east of Emory Lane (See Small mammal culvert description for I-370 ramps).	11
34	Sta. 415+00	Wildlife Passage	Hydraulic culvert would be located east of Georgia Avenue (See Hydraulic Culvert Description for	12
35	Sta. 420+00	Wildlife Passage	Hydraulic culvert would be located east of Georgia Avenue (See Hydraulic Culvert Description for Station 207+00).	13
36	Sta. 433+00	Wildlife Passage	Hydraulic culvert would be located south of Trotters Glen Golf Course (See Hydraulic Culvert Description for Station 207+00).	14
37	Sta. 435+00	Wildlife Passage	Hydraulic culvert would be located south of Trotters Glen Golf Course (See Hydraulic Culvert Description for Station 207+00).	15
38	Sta. 533+00	Wildlife Passage	Bridge would be located northwest of Bonifant Road (See Bridge Description for Station 240+00).	16
39	Sta. 555+00	Wildlife Passage	Bridge would be located over Bonifant Road (See Bridge Description for Station 240+00).	17
40	Sta. 595+00	Wildlife Passage	Bridge would be located south of Bonifant Road (See Bridge Description for Station 240+00).	18
41	Sta. 654+00	Wildlife Passage	Small mammal culvert would be located west of New Hampshire Avenue (See Small mammal culvert description for I-370 ramps).	19
42	Sta. 673+00	Wildlife Passage	Hydraulic Culvert would be located east of MD 650 (See Hydraulic Culvert Description for Station 207+00).	20
43	Sta. 690+00	Wildlife Passage	Bridge would be located east of Cape May Road (See Bridge Description for Station 240+00).	21
44	Sta. 740+00	Wildlife Passage	Bridge would be located southwest of Crest Hill Lane (See Bridge Description for Station 240+00) (740+00 and 750+00 bridge is located over two streams.)	22
45	Sta. 750+00	Wildlife Passage	Bridge would be located southeast of Crest Hill Lane (See Bridge Description for Station 240+00).	23
46	Sta. 839+00	Wildlife Passage	Hydraulic culvert would be located east of US 29 (See Hydraulic Culvert Description for Station 207+00).	24

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No.	Station ID	Mitigation Benefit	Mitigation Description	Map ID #
47	Sta. 880+00	Wildlife Passage	Bridge would be located south of Greencastle Road (See Bridge Description for Station 240+00).	25
48	Sta. 978+00	Wildlife Passage	Small mammal culvert would be located east of I-95 (See Small mammal culvert description for I-370 ramps).	26
Bird Habitat Creation				
49	General	Habitual Creation	Mitigation of impacts to bird habitat will be accomplished through the required reforestation for tree clearing. An emphasis will be placed on creating or enhancing large, contiguous blocks of forest important as forest interior habitat for birds.	Not Shown on Map
New Parkland				
50	Dungan Property North	44.9 acres	The Dungan Property North would provide 44.9 acres of replacement parkland adjacent to existing parkland in the North Branch Rock Creek Watershed. This property would provide stream valley protection, passive recreational opportunities, and community open space. It contains 738 linear feet of streams, 20 acres of forest, and 24.5 acres that would be reforested by SHA. Once reforested, there is potential in the future for up to 87 acres of new FIDS habitat on site and on adjacent lands in North Branch Stream Valley Park.	2
51	Llewellyn Property	23.2 acres	The Llewellyn property would provide 23.2 acres of replacement adjacent to the Northwest Branch Recreational Park. The property would include construction of four baseball/softball fields, one soccer field, onsite parking, and restrooms. The replacement fields would be superior in quality than the existing fields because they are located in upland areas that are less prone to flooding. Access to these replacement fields would be provided directly from MD 28, which is also an improvement over access to the existing fields from Layhill Road and Bonifant Road. This property would also provide 3 acres of reforestation land.	3

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No.	ID Descriptor	Benefit	Mitigation Description	Map ID #
52	Peach Orchard Allnut Property	118 acres	The Peach Orchard Allnut property would provide 118 acres of replacement parkland in the Upper Paint Branch Watershed. This site would provide stream valley protection and passive recreational opportunities. The Peach Orchard Allnut site would provide 15.9 acres of wetlands, 2,100 linear feet of streams, and 28.3 acres of forest. There would also be approximately 90 acres of potential reforestation land and 67 acres of potential future FIDS habitat. Also, because it is at the headwaters of the Paint Branch, it would serve to protect this portion of the stream.	4
53	Santini Road Properties	49.2 acres	The Santini Road Properties would serve to protect undeveloped land in the sensitive Rocky Gorge watershed, thereby providing stream valley protection, passive recreation, and community open space in this portion of the County. Though not directly adjacent to the T. Howard Duckett Watershed Property, these properties would be conserved as parkland and protected from future development. Therefore, they would continue to offer additional protection for the T. Howard Duckett (Rocky Gorge) Reservoir. These sites contain 35.2 acres of existing forest and an additional 14 acres would be reforested.	5
54	Southern Asia Adventist Property	23.2 acres	The Southern Asia Adventist Property would provide 23.2* acres of replacement parkland in the Upper Paint Branch Watershed. The site would provide stream valley protection and passive recreational opportunities. It contains extensive areas of stream valley buffer and good quality forest. It also contains the critical headwater wetland complexes of the Left Fork of the Paint Branch. These features would be protected by converting this land to parkland.	6

*It is expected that approximately six acres of land located on the Southern Asia Adventist and McNeill Properties would be used for the planned widening of MD 198. This acreage would be subtracted from the total acreage of these properties as shown above and the remainder of the land would be provided as mitigation for the ICC project.

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No.	ID Descriptor	Benefit	Mitigation Description	Map ID #
55	McNeill Property	36.2 acres	The McNeill Property would provide 36.2* acres of replacement parkland in the Upper Paint Branch Watershed. The site would provide stream valley protection and passive recreational opportunities. It contains extensive areas of stream valley buffer and good quality forest. It also contains the critical headwater wetland complexes of the Left Fork of the Paint Branch. These features would be protected by converting this land to parkland.	7
56	Casey Property at Hoyles Mill	459 acres	The Casey Property at Hoyles Mill is located outside of the ICC Study Area near Poolesville in Montgomery County. This site, which would become public parkland, would add an additional 459 acres to the park system adjacent to several existing parks including Seneca Creek State Park, South Germantown Recreational Park, Little Seneca Stream Valley Park and Hoyles Mill Conservation Park. Preservation of this property will add over 340 acres of existing forest and 214 acres of existing FIDS habitat to the park system. There is approximately 118 acres of open land that may be available for reforestation, which could also help increase the FIDS habitat to approximately 340 acres on site.	1
57	Unused Designated Transportation Area in Northwest Branch Stream Valley Park - Unit 5	21.3 acres	The unused portion of the Designated Transportation Area in Northwest Branch Stream Valley Park - Unit 5 would be converted to parkland adding 21.3 acres to the park. The conversion of this land would protect land adjacent to the existing park that has many of the same natural features and passive recreational functions as the adjacent parkland.	8
58	SHA-Owned Unused Designated Transportation Area Adjacent to Upper Paint Branch Stream Valley Park	7.6 acres	The unused SHA-owned Designated Transportation Area adjacent to Upper Paint Branch Stream Valley Park will be transferred to M-NCPPC for incorporation into the park. This area includes forests, wetlands, streams, and FIDS habitat. It was originally acquired by SHA for the ICC. It is not needed due to a change in the corridor for the ICC on the M-NCPPC's Master Plan in 1982. For further information about this 7.6-acre parcel, see the Addendum to the Section 4(f) Evaluation, which is attached as to this ROD.	9

*It is expected that approximately six acres of land located on the Southern Asia Adventist and McNeill Properties would be used for the planned widening of MD 198. This acreage would be subtracted from the total acreage of these properties as shown above and the remainder of the land would be provided as mitigation for the ICC project.

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No.	ID Descriptor	Benefit	Mitigation Description	Map ID #
Reforestation Sites				
59	Washington Suburban Sanitary Commission	200 acres	Approximately 200 acres of potential reforestation area has been identified on Washington Suburban Sanitary Commission (WSSC) property. These sites are located within the Rocky Gorge watershed and about the Triadelphia Reservoir. Approximately 165 acres are located in Montgomery County and 35 acres are in Howard County. Even though the 35 acres located within Howard County are outside of the counties in which the ICC could be constructed, they still meet the Maryland Reforestation Law criteria because they are located within the Rocky Gorge Watershed. Habitat and water quality improvements from reforestation within the WSSC properties would benefit Montgomery, Prince George's, and Howard Counties by enhancing the reservoir buffer, connecting forest tracts, and once established, creating forest interior habitat.	Not Shown on Map
60	Maryland Department of Natural Resources	200 acres	Coordination had initially occurred with Seneca Creek State Park staff regarding potential reforestation efforts within the park. Preliminary discussions resulted in the identification of approximately 200 acres of State parkland that could be used for reforestation purposes. Of the 200 acres, 36 acres are available immediately. In order to use State park lands, an internal review is required of each park parcel potentially used for reforestation purposes by the DNR's Land Management Unit. The purpose of the review is to ensure that reforestation efforts do not conflict with other potential park uses or commitments. DNR Land Management staff is also considering other State lands within the general proximity to the study area, other than Seneca Creek State Park.	Not Shown on Map

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No.	ID Descriptor	Benefit	Mitigation Description	Map ID #
61	Maryland-National Capital Park and Planning Commission	75-100 acres	The ICC study team is working closely with M-NCPPC staff to identify existing parkland properties that may be suitable for reforestation. M-NCPPC park properties or portions thereof located in 100-year floodplains or other sensitive environs are typically limited for active park use or the placement of structures, or for parking and are therefore ideal for reforestation. Numerous sites have been located throughout Montgomery County through the use of GIS and provided by the ICC study team to M-NCPPC for their review. Several M-NCPPC regional park managers are currently reviewing these sites for reforestation purposes. An estimated 75 to 100 acres is tentatively acceptable as reforestation areas.	Not Shown on Map
62	Parkland Mitigation Sites	100-150 acres	The ICC Team has identified 100 to 150 acres of open space that could be reforested within proposed parkland mitigation sites. This reforestation may include stream buffer planting and upland reforestation; both of which would improve habitat and water quality conditions.	Not Shown on Map
63	Wetland/ Stream Compensatory Mitigation and Environmental Stewardship Sites	75 acres	It is anticipated that as part of the wetland compensation and Environmental Stewardship efforts, additional reforestation acreage opportunities will be identified. Many of the wetland mitigation sites, for example, will have additional land other than the actual wetland area that could be used for reforestation. The ICC study team has identified approximately 75 acres of open space that could be reforested within the mitigation sites. This reforestation may include stream buffer planting and upland reforestation; both of which would improve habitat and water quality conditions.	Not Shown on Map

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No.	ID Descriptor	Benefit	Mitigation Description	Map ID #
64	Unassigned SHA Reforestation Acreage within Montgomery and Prince George's Counties	50 to 75 acres	In addition to the potential reforestation sites identified above, SHA has determined that reforestation credit exists within Montgomery and Prince George's County from planting that has occurred in response to previously completed projects. This credit is a result of planting that had occurred above and beyond what had been required under regulatory guidance for a particular SHA project. 37 sites are located with Montgomery County and 34 are in Prince George's County. Of the 114.1 acres that are located within Montgomery County, six of the sites totaling approximately 58 acres occur within WSSC property boundaries or within the vicinity of Triadelphia Lake Road. The 34 sites in Prince George's County comprise approximately 90 acres of the unassigned acreage. Overall field verifications have identified approximately 50 to 75 acres of unassigned sites that are either in good condition, or that could be reforested. Some of the sites were removed from the list due to the placement of noise walls, roadway improvements, or the inability to locate the reforestation area during the site verification process. Research on these sites will continue throughout the NEPA and mitigation processes.	Not Shown on Map
65	Reforestation with the Proposed ICC ROW	75 – 100 acres	Based on engineering concepts, there would be the creation of isolated parcels that are unsuitable for development, but possibly ideal for reforestation. Initial analysis has identified approximately 75 to 100 acres of reforestation can be expected from these areas. These areas exist throughout each corridor. In many cases, potential sites are adjacent to existing forest cover.	Not Shown on Map
(Visual Quality)				
66	General	Aesthetics	Configure the road, landscaping, retaining walls, and noise barriers in a manner that would make the facility less noticeable	Not Shown on Map

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No.	ID Descriptor	Benefit	Mitigation Description	Map ID #
67	General	Aesthetics	<p>Develop design standards for the overall facility that would increase its compatibility with the surrounding environment. Proposed Design Guidelines include:</p> <ul style="list-style-type: none"> • Use decorative finishes on publicly visible highway features in keeping with the overall highway theme and surrounding vernacular • Avoid or minimize community separations introduced by highway construction • Provide plant buffers to screen incompatible views between visually sensitive areas • Provide streetscape enhancements in keeping with the local vernacular on service roads and community streets that will be included as part of the ICC study • Maintain open vista over landscape where possible by framing viewsheds with landscape plantings • Provide reforestation plantings adjacent to existing forest tracts, and use species composition native to the area • Limit hardscape elements to areas where only necessary to accommodate environmental avoidance, minimization, and stewardship features • In instances where hardscape elements are used (i.e. retaining walls, overpasses, box culverts, riser structures, etc) in publicly visible areas, allow for rustic finishes such as timber, staining, or formlining • Limit park and forest impacts by reducing the roadway footprint to the minimum extent practical • Integrate ornamental planting and landscape buffering along the highway 	Not Shown on Map

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No.	ID Descriptor	Benefit	Mitigation Description	Map ID #
Section 106 MOA Stipulations				
68	MOA Stipulation I.A	Visual	To mitigate adverse visual impacts to the historic property caused by the ICC, MdTA and SHA will ensure that the area on the south side of Cashell Farm between Stations 265 and 295 within SHA's right-of-way for the ICC is landscaped in accordance with the landscaping plan cited in the MOA; the landscaping plan is implemented within one year following the completion of the construction of the ICC; and, any change or modification to the design or scheduling of the ICC will be coordinated with the MD SHPO and all interested parties identified in the MOA.	Not Shown on Map
69	MOA Stipulation I.B	Visual	To mitigate adverse visual impacts to the historic property caused by the ICC, MdTA and SHA will ensure that the area on the south side of Willow Grove within SHA's right-of-way between Stations 420 and 434 along the ICC is landscaped in accordance with the landscaping plan cited in the MOA; the landscaping plan is implemented within one year following the completion of the construction of the ICC; and, any change or modification to the design or scheduling of the ICC will be coordinated with the MD SHPO and all interested parties identified in the MOA.	Not Shown on Map
70	MOA Stipulation II	Additional Archeology	The ICC may adversely affect National Register eligible archeological sites pending the completion and results of archeological identification and evaluation studies that are identified under Stipulation II Treatment of Archeological Resources in the MOA.	Not Shown on Map
71	MOA Stipulation III	AMMR to adverse effects pending further archeology studies	Should historic properties be unexpectedly identified during the implementation of the ICC, the MdTA and the SHA shall ensure that reasonable efforts are made to avoid, minimize or mitigate adverse effects to such properties, and shall consult the MDSHPO to resolve any unavoidable adverse effects pursuant to 36 CFR §800.6. All work will be accomplished in accordance with the performance standards in Stipulation V of the MOA, and in accordance with the procedures specified in Stipulation IV of the MOA.	Not Shown on Map

Attachment D: The ICC Mitigation Package

No.	ID Descriptor	Benefit	Mitigation Description	Map ID #
72	MOA Stipulation IV	Additional cultural resources studies for ancillary facilities	Ancillary activities including, but not limited to, environmental stewardship such as historic structure rehabilitation and wayfinding devices; stormwater management facilities, wetland mitigation sites, reforestation areas, hiker/biker facilities, or alignment modifications to the previously investigated alternatives may be added to the ICC in the future. Should such activities be added for which cultural resources studies have not been completed, the MdTA and the SHA shall ensure that consultation ensues with the MD SHPO and other interested parties and that all required cultural resources studies are implemented, adhering to all relevant standards and guidelines referenced in Stipulation V of the MOA.	Not Shown on Map
73	MOA Stipulation V	Environmental Stewardship	As part of the Environmental Stewardship Package developed for the ICC, MdTA and SHA propose to implement specific Community and Cultural Features designed to improve and enhance the cultural quality within the ICC study area. MdTA and SHA shall coordinate the implementation of its Environmental Stewardship in accordance with relevant provisions of Stipulations IV and VI.	Not Shown on Map
74	MOA Stipulation V.A	Rehabilitation of Woodlawn Manor Property Bank Barn	As part of the environmental stewardship efforts for the ICC, MdTA and SHA propose to assist the Maryland-National Capital Park and Planning Commission – Montgomery County with the rehabilitation of the Bank Barn located within the Woodlawn Manor property (MIHP No. M: 28-14) as a visitor center to serve as a trailhead for the Rural Legacy Trail and a gateway to historic Sandy Spring. MdTA and SHA shall ensure that the design of the project is compatible with the historic and architectural qualities of the Woodlawn Manor and Barn property and that all plans and specifications for the rehabilitation conform to the Secretary of Interior’s Standards for the Treatment of Historic Properties (36 CFR Part 68). MdTA and SHA will provide copies of the plans and specifications to the MD SHPO for review and approval.	Not Shown on Map

Attachment D: The ICC Mitigation Package

No.	ID Descriptor	Benefit	Mitigation Description	Map ID #
75	MOA Stipulation V.B	Heritage Area Wayfinding Devices	Within one year of construction of the ICC, SHA in consultation with the Montgomery County Heritage Area (MCHA) Management Entity and the Anacostia Trails Heritage Area (ATHA) Management Entity will develop text and signs for wayfinding devices to assist motorists in identifying heritage tourism opportunities in the two certified heritage areas. The MdTA and the SHA will provide copies of the text and signs to the MD SHPO and the MCHA Management Entity and the ATHA Management Entity for a thirty day review and approval. The signs will be manufactured and installed within one year of the completion of the ICC in its entirety.	Not Shown on Map
76	MOA Stipulation XI	Annual MOA Implementation Reports	On or about February 1 of each year until the Lead Agencies and MD SHPO agree in writing that the terms of this MOA have been fulfilled, MdTA and SHA will prepare and provide an annual report to the MD SHPO addressing the following topics: Progress in constructing the ICC; Progress in installing the landscaping plan at J. H. Cashell Farm and Willow Grove; Status of archeological identification, evaluation, and treatment, as appropriate; Any problems or unexpected issues encountered during the year; and, any changes that MdTA and SHA believe should be made in implementing the MOA.	Not Shown on Map
Farmland				
77	General	Compensation for interruption to viable farm operations	Just compensation will be provided to farm owners whose property is within the required ROW (FPPA, 1981). If impacts were to interrupt viable farm operations, financial compensation would be considered as a mitigation option. However, it should be noted that the majority of farmlands identified are proposed for residential or commercial development.	Not Shown on Map

Attachment D: The ICC Mitigation Package

No.	ID Descriptor	Benefit	Mitigation Description	Map ID #
Air Quality				
78	General	Emissions Reductions	Construction equipment will be maintained to minimize noise emissions caused by inefficiently tuned engines, poorly lubricated moving parts and poor-ineffective muffling/exhaust systems.	Not Shown on Map
79	General	Emissions Reductions	The Lead Agencies will require the implementation of a Diesel Emission Reduction Plan for construction purposes.	Not Shown on Map
80	General	Emissions Reductions	Mobile source emissions can be reduced during construction by use of retrofits-oxidation catalysts on equipment and not permitting idling of delivery trucks or other equipment during long periods of time for unloading. This will be monitored during project construction.	Not Shown on Map
Proposed Sound Barriers for Further Study				
81	1	9 dBA, Avg IL*	Parkside Estates	Not Shown on Map
82	2/4	9 dBA, Avg IL*	Redland Station; Cashell Estates	Not Shown on Map
83	6	9 dBA, Avg IL*	Redland	Not Shown on Map
84	8/8-1	7 dBA, Avg IL*	Sycamore Acres; The Preserve	Not Shown on Map
85	9	8 dBA, Avg IL*	Oakdale	Not Shown on Map
86	10	5 dBA, Avg IL*	Longmead	Not Shown on Map
87	11	7 dBA, Avg IL*	Longmead Crossing	Not Shown on Map
88	12	7 dBA, Avg IL*	Gayfields	Not Shown on Map
89	13	7 dBA, Avg IL*	Longmead; Bel Pre Manor	Not Shown on Map
90	14	11 dBA, Avg IL*	Sherwood Forest	Not Shown on Map
91	15	8 dBA, Avg IL*	Stonegate; Stratford Manor Terrace; South Stonegate	Not Shown on Map
92	16	8 dBA, Avg IL*	Colesville Manor	Not Shown on Map
93	17	7 dBA, Avg IL*	Colesville	Not Shown on Map

Attachment D: The ICC Mitigation Package

No.	ID Descriptor	Benefit	Mitigation Description	Map ID #
94	19/21	7 dBA, Avg IL*	Spring Oak Estates; Gum Springs; Maydale; Stonecrest; Avonshire	Not Shown on Map
95	20	7 dBA, Avg IL*	Fairland	Not Shown on Map
96	22	10 dBA, Avg IL*	Tanglewood	Not Shown on Map
97	23	7 dBA, Avg IL*	Greencastle/Burtonsville	Not Shown on Map
98	23-1	7 dBA, Avg IL*	Saddle Creek	Not Shown on Map
99	24	8 dBA, Avg IL*	Greencastle Manor	Not Shown on Map
100	24-3	12 dBA, Avg IL*	Mayfair/Muirkirk	Not Shown on Map

* - Average Insertion Loss (dBA)

Hazardous Materials and associated Groundwater Mitigation

101	7	Soil and Debris Clean-up	Clean-up will be accomplished by removal of contaminated soil and debris to an off-site facility.	Not Shown on Map
102	37	Soil and Debris Clean-up	Clean-up of soils and debris will be accomplished by removal to an off-site facility, and the SVOC contaminated ground-water remediation will be accomplished by pumping and carbon filtration treatment.	Not Shown on Map
103	628	Soil and Debris Clean-up	Cleanup of soils and debris will be accomplished by removal to an off-site facility, and that SVOC contaminated ground-water remediation will be accomplished by pumping and carbon filtration treatment.	Not Shown on Map
104	951	Soil and Debris Clean-up	Cleanup of soils and debris will be accomplished by removal to an off-site facility, and that SVOC contaminated ground-water remediation will be accomplished by pumping and carbon filtration treatment.	Not Shown on Map
105	8926	Soil and Debris Clean-up	Cleanup of soils and debris will be accomplished by removal to an off-site facility, and that SVOC contaminated ground-water remediation will be accomplished by pumping and carbon filtration treatment.	Not Shown on Map
106	9574	Soil and Debris Clean-up	Clean-up will be accomplished by removal of contaminated soil and debris to an off-site facility.	Not Shown on Map
107	9576	Soil and Debris Clean-up	Clean-up will be accomplished by removal of contaminated soil and debris to an off-site facility.	Not Shown on Map

**Attachment E -
Summary List of Project
Commitments**

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
Design Related Commitments			
1	The ICC will be designed as not to preclude the construction of a future interchange with M-83 (a planned easterly extension of Midcounty Highway), A-59 (a planned road west of I-95) and future proposed MD 28 improvements.	General	CH III.E.3 Page III-36
2	The ICC will be designed in accordance with the Context Sensitive Design Guidelines as proposed in the FEIS and Appendix H.	Aesthetics/ Socio- Economic	CH IV.A.3 Page IV-3 & Appendix H
3	The roadway, landscaping, retaining walls, and noise barriers will be configured in a manner that would make the facility less noticeable.	Aesthetics/ Socio- Economic	CH VII.3.k Page VII-84- 85
4	The aesthetic design of the ICC at MD 97 will be a context sensitive design developed based on input from the communities and recommendations set forth in the area Master Plans.	General	CH IV.B.3.b Page IV-45
5	The ICC will include dynamic message signs, monitoring systems, incident management plans in addition to other features that will accommodate quick action in an emergency situation.	General	CH IV.J.1.b Page IV-340
6	The Selected Alternative includes a budget of \$20 million to fund the transit service planning study and the capital and operational improvements resulting from the transit study. This transit study will be completed before the ICC opens to traffic and will include a more detailed investigation of the six express bus routes previously identified in FEIS; additional express and feeder bus routes; appropriate locations for bus stops; the exact size and location of the park-n-ride facilities; and related issues such as analysis of any environmental impacts of the transit component that were not already studied.	General	CH III.E.3.c Page III-46 & Appendix R6 ROD
7	Avoidance, minimization, and mitigation measures developed through the NEPA planning process will be incorporated as a part of the ICC design. These include such measures as depressing the roadway to minimize noise and visual impacts to communities, development of ESC plans, incorporation of SWM facilities, shifting alignments to avoid communities and sensitive resources, limiting forest clearing, avoiding skewed stream crossings where possible, and reducing typical roadway section widths near sensitive resources where feasible. In addition, design of the ICC will be coordinated with the resource agency to include additional avoidance and minimization measures to ensure a high level of protection to community, natural, and cultural resources.	General	CH IV.A Page IV-1

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
8	<p>Develop design standards for the overall facility that would increase its compatibility with the surrounding environment. Proposed Design Guidelines include:</p> <ul style="list-style-type: none"> • Use decorative finishes on publicly visible highway features in keeping with the overall highway theme and surrounding vernacular • Avoid or minimize community separations introduced by highway construction • Provide plant buffers to screen incompatible views between visually sensitive areas • Provide streetscape enhancements in keeping with the local vernacular on service roads and community streets that will be included as part of the ICC study • Maintain open vista over landscape where possible by framing viewsheds with landscape plantings • Provide reforestation plantings adjacent to existing forest tracts, and use species composition native to the area • Limit hardscape elements to areas where only necessary to accommodate environmental avoidance, minimization, and stewardship features • In instances where hardscape elements are used (i.e. retaining walls, overpasses, box culverts, riser structures, etc) in publicly visible areas, allow for rustic finishes such as timber, staining, or formlining • Limit park and forest impacts by reducing the roadway footprint to the minimum extent practical • Integrate ornamental planting and landscape buffering along the highway 	Aesthetics/ Socio- Economic	CH IV.B.5.d Page IV-90 - 91
9	<p>Design of the ICC will include steeper side slopes for cuts and fills (2:1 side slopes and 1:1 Mechanically Stabilized Earth (MSE) slopes instead of gentler slopes) and reduced median widths to avoid/minimize impacts in environmentally sensitive areas which include communities, cultural resources, and natural resources.</p>	General	CH IV.A.1 Page IV-1
10	<p>The ICC will minimize the visual intrusion of the highway into residential areas by keeping the roadway at grade and avoiding deep cuts and high fills, where feasible.</p>	Context Sensitive Design	CH IV.A.2 Page IV-2

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
11	Opportunities to further adjust the ICC profile will be studied to reduce noise and/or visual impacts in the following residential areas identified in the FEIS and will be implemented if found feasible and prudent: Walnut Hill Community Area, Shady Grove Community Area east of the Metro Access Road; Forest Oak/Founders Mill Community Area; Greater Aspen Hill Community Area; Muncaster Manor/Bowie Mill Estates Community Area; Muncaster Mill View Community Area; Oakdale Community Area, Leisure World Community Area; Longmead Community Area; Colesville Community Area; Fairland Community Area, Avonshire Community Area; Tanglewood Community Area; Greencastle Manor Community Area; Calverton Community Area; and Mayfair/Muirkirk Community Area.	Aesthetics/ Socio- Economic	CH IV.B.3.b Section Starts on Page IV-31
12	Design of the ICC, in vicinity of Winter's Run, will include a grade separated cut and cover deck, up to 625 feet in length based on coordination with the Winter's Run community.	Community Mitigation	Post FEIS Coordination
13	During design, landscape plantings or other screening options will be considered to soften the effects of the proposed improvements.	Aesthetics/ Socio- Economic	CH IV.G.1 Page IV-302
14	Design of retaining walls will be considered where feasible and not cost prohibitive to minimize impacts in the following community and park areas as identified in the FEIS including: Forest Oak/Founders Mill Community Area in Mill Creek Stream Valley Park, Redland Community Area in Rock Creek Regional Park, Oakdale Community Area and Sycamore Acres Community Area in North Branch Stream Valley Park, Colesville Community Area in Northwest Branch Park, Bel Pre Manor Community Area in Northwest Branch Recreational Park, Colesville Farms Estates/Paint Branch Farms Community Area, Maydale/Gum Springs Community Area in Upper Paint Branch Stream Valley Park, Spring Oak Estates Community Area and the Stonecrest Community Area in Upper Paint Branch Stream Valley Park.	Aesthetics/ Socio- Economic	CH IV.B.3.b Section Starts on Page IV-31
15	The ICC will avoid property acquisition from the Dr. Charles R. Drew Elementary School.	Aesthetics/ Socio- Economic	CH IV.B.3.b Page IV-55
16	Pedestrian access to the Greencastle Manor Community Area will be maintained within Little Paint Branch Stream Valley Park under the ICC bridge over Little Paint Branch upon completion of the ICC.	Community	CH IV.B.3.b Page IV-62

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
17	Pedestrian access between the Spring Oak Estates Community Area and Paint Branch Park will be maintained under the ICC bridge spanning the Good Hope, Gum Springs, and Paint Branch tributaries after construction of the ICC.	Aesthetics/ Socio- Economic	CH IV.B.3.b Page IV-55
18	The view of the ICC/US 29 three-level interchange will be screened from the Avonshire and Tanglewood communities by constructing earthen berms, walls, vegetative screening, or any combination thereof. SHA will ensure that the SHA-owned land on which these features are constructed will be dedicated to providing visual screening of communities adjacent to the interchange.	Aesthetics/ Socio- Economic	Post FEIS Coordination
19	ICC construction will include approximately 11.4 miles of new bicycle/pedestrian trail as part of the 20.7 mile planned east-west bicycle/pedestrian route as identified in the Record of Decision. The ICC selected alternative bicycle/pedestrian trail will include ROW, paving, earthwork and SWM facilities needed to accommodate a ten-foot wide path in areas where the route coincides with the ICC alignment. The Lead Agencies will coordinate with the Counties to accelerate the construction of the portions of the trail plan currently in local plans. Updates to FHWA will be provided.	Bicycle/ Pedestrian Trail	CH III.E.3.b Page III-45 ROD Figure 3
20	Bridge abutments were set conceptually in the FEIS to minimize impacts to streams, wetlands and the 100-yr floodplain. Table IV-68 on page IV-225 of the FEIS is a Summary of Preliminary Stream Crossings, Stream and Wetlands Impacts, and Avoidance and Minimization Measures. Piers and slope protection will be set to maintain buffers to the stream top of bank in order to maintain easily traversable pedestrian and wildlife passage. Underclearances will be provided to establish buffer requirements and to encourage natural vegetation to grow beneath the bridges. Bridges will be designed to avoid placement of piers in stream channels. Retaining walls, instead of slopes, will be designed where practicable to minimize direct impacts to stream channels. Additionally, the ICC will be designed as to minimize grading by working with the natural topography to minimize direct impacts to stream channels.	Stream Crossings	CH III.A.3 Page III-33 CH IV.F.7.e. Page IV-223
21	Table IV-76 on page IV-276 of the FEIS identifies proposed structures at Select Drainage Crossings. Bridge spans are greater in length than required hydraulically to minimize direct impacts to stream channels and will be provided at the following Station locations: 240+00, 320+00, 327+00, 533+00, 535+00, 560+00, 594+00, 690+00, 742+00, 749+00 and 880+00 (for locations, see FEIS Volume II, Appendix A).	Stream Crossings	CH IV.F.5.a Page IV-276

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
22	The roadway profile at Gum Springs Tributary and Paint Branch has been conceptually designed to reduce fill between the two streams to protect water quality and brown trout populations and will be further evaluated during design to minimize impacts.	Stream Crossings	CH IV.A.3 Page IV-4
23	A stormwater piping system will be designed into bridges to prevent untreated bridge runoff from directly entering the Good Hope and Gum Springs tributaries in addition to the mainstem of the Paint Branch.	Stream Crossings	CH IV.A.3 Page IV-4 & Page IV-206
24	The ICC will be designed to accommodate groundwater flow (without substantial heating) from the spring seeps at Station 673+00.	Stream Crossings	CH III.E.3 Page III-38 Post FEIS Coordination
25	Two culverts will be provided at Station 174. One will accommodate the base flow of the stream. The other will be a culvert situated in the floodplain to accommodate flood flows, deer passage, and pedestrian passage. The pedestrian culvert will be lighted to facilitate pedestrian passage (this requirement may be reconsidered if the internal dimensions are increased beyond 12-foot by 12-foot). The maximum length of the pedestrian culvert will be 195 feet. The ICC will be designed and constructed to maintain groundwater seepage at Station 174 and to establish vernal pools in the vicinity.	Stream Crossings	Post FEIS Coordination
26	An Erosion and Sediment Control Plan (ESCP) will be developed and administered to minimize the soil erosion associated with steep slopes and unstable and highly erodible soils. The ESCP will be prepared during design in accordance with the guidelines provided by the MDE and will employ stringent erosion and sediment control measures, along with on-site environmental monitors to protect water quality and aquatic habitat.	Erosion and Sediment Control	CH IV.F.1.c Page IV-138
27	In Mill Creek Stream Valley Park, Rock Creek Regional Park, North Branch Stream Valley Park and Northwest Branch Recreational Park, the profile will remain elevated (as shown in the FEIS) to reduce environmental impacts.	Parklands	CH IV.B.3.b Section Starts on Page IV-31
28	Permeability testing will be conducted during design to determine the effectiveness of infiltration as a SWM technique.	Stormwater Management	CH IV.F.1.c Page IV-138

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
29	<p>Design of the ICC will use the following SWM design parameters, which go beyond current minimum standards, to reduce overall impacts to water resources:</p> <ul style="list-style-type: none"> • Exceed applicable regulations and specifications for water quality treatment by treating 1.5 inches of rainfall throughout the project corridor. • Meet Montgomery County Department of Permitting Services (MCDPS) SPA Stormwater Criteria and gain MCDPS concurrence for water quality plans within SPAs. • Incorporate a combination of filtration, and infiltration within SPAs and measures described in MDE’s 2000 Maryland Stormwater Design Manual elsewhere to address water quality. • Control and treat both road and bridge deck runoff in designated SPAs. • Design facilities within Use III and IV watersheds to be temperature sensitive and promote infiltration to maximize groundwater recharge to protect brown trout and other temperature sensitive species. 	Stormwater Management	CH IV.F.5.a. Page IV-170
30	<p>SWM facilities will be designed as required to address channel protection volume (Cpv) and overbank flood protection volume storm (Qp) quantity control. Cpv will be designed for 24-hour detention in Use I and IP subwatersheds as defined in the FEIS in Table III-1 on Page III-33. In Use III and IV subwatersheds, Cpv designs will be limited to 12 hours to minimize the potential for increasing receiving stream temperatures. Twelve-hour Cpv will also be provided in underground pipes or dry surface ponds. Pages VII-25-26-27 of the FEIS summarizes the SWM approach being applied for the Entire ICC; areas Outside of SPA’s; and, areas within SPA’s.</p>	Stormwater Management	CH III.E.2.c Page III-34 CH VII.B. 5 Pages VII 25-26-27
31	<p>To address sensitive stream issues within both SPA’s, “linear stormwater treatment” has been developed, which includes a 50 foot median to provide sand filters in the divided roadway median and along roadway shoulders throughout the length of the SPA. Sand filters and collection systems will be designed to maximize stormwater infiltration. SWM facilities within SPA’s will be small but numerous to limit the individual drainage area treated at each individual facility.</p>	Stormwater Management	CH III.E.2.c Page III-35 Post FEIS Coordination
32	<p>The ICC will be designed to protect all infiltration areas during construction through compliance with MDE Regulations.</p>	Stormwater Management	CH IV.A.5 Page IV-6
33	<p>The ICC will be designed based on field infiltration tests at design depths (not sieve analyses) to minimize impacts of uncontrolled ICC runoff on receiving waters.</p>	Stormwater Management	CH IV.A.5 Page IV-6

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
34	The ICC will be designed to provide groundwater recharge via sheet flow of runoff through grass and use of grassed channels to convey runoff as to avoid and/or minimize impacts of uncontrolled runoff from the ICC on receiving waters wherever possible.	Stormwater Management	CH IV.A.5 Page IV-6
35	The ICC will be designed as to disconnect impervious surface runoff from direct discharge into waterways by promoting sheet flow through vegetation and using grass channels that improve water quality and promote infiltration wherever possible.	Stormwater Management	CH IV.A.5 Page IV-6
36	Design of the ICC includes development of SWM inspection and maintenance protocols for any SWM facilities constructed on the ICC to ensure long term effectiveness in avoiding and/or minimizing impacts.	Stormwater Management	CH IV.A.5 Page IV-6
37	In addition to the Common Highway Runoff Constituents and the primary sources listed in Table IV-57 on Page IV-174 of the FEIS, SWM will be provided for all areas of the roadway and some areas outside the ROW providing treatment for the sparsely vegetated areas that now produce considerable runoff with little or no treatment.	Stormwater Management	CH IV.F.7.e Page IV-233
38	An in-line pond will be designed and constructed on Indian Creek in the area of the ICC/I-95 interchange. The new basin will be situated as far to one side of the existing stream as possible, as not to preclude a relocation of the stream around the basin by others in the future (when there are no longer significant upstream sources of sediment entering the stream system).	Stormwater Management	CH IV.F.7.e Page IV-234
39	Any chemical spills along the ICC will likely concentrate in roadside ditches. Roadside ditches will be designed with storm drain inlets that convey excess runoff to storm drains and eventually to a larger SWM facility where clean-up can be accommodated.	Stormwater Management	CH IV.F.2.c Page IV-141
40	The Lead Agencies (Federal Highway Administration (FHWA), SHA and Maryland Transportation Authority (MdTA) will continue to investigate feasible and practical methods to maintain cool baseflow from existing spring seeps. Methods will include storage and cooling of stormwater for release during summer months, with a potential potable water back-up when stormwater quantities are not adequate. Challenges that are being investigated related to these options include storing the amount of water needed and removal of chlorine from a back-up potable water supply. SHA will continue to coordinate with the resource agencies and local interests, including the Brown Trout Work Group regarding the feasibility of these options as design continues.	Stormwater Management	CH IV.F.6.b Page IV-207
41	The ICC will be designed using underground SWM in some areas to avoid parkland and natural resource impacts.	Stormwater Management	CH IV.F.5.a Page IV-169

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
42	SWM in the Colesville Farms Estates/Paint Branch Farms Community Area in the Good Hope Tributary watershed will be designed to divert run-off to an area outside the Upper Paint Branch Stream Valley.	Stormwater Management	CH IV.B.3.b Page IV-54
43	SWM facilities will be designed to minimize any potential groundwater quantity and quality impacts. SWM facilities could be designed to infiltrate a portion of the runoff to maintain recharge levels to stream and wetland hydrology. SWM facilities will also be designed (where feasible) as to use materials such as mulch, wood chips, or compost that would reduce the amount of nutrients, metals, and heavier petroleum products that could migrate through the soil column and into groundwater.	Stormwater Management	CH IV.F.2.c Page IV-141
44	The ICC will be designed to minimize construction impacts that may initiate further channel erosion, instream sedimentation, and downstream sedimentation in Lake Frank.	Stormwater Management	CH IV.F.5.a Page IV-153
45	The ICC will be designed to reduce existing and potential impacts using SWM and other minimization measures in the Lower Good Hope Tributary subwatershed and the Upper Left Fork subwatershed, where channel erosion and stability problems exist due to a lack of stormwater control.	Stormwater Management	CH IV.F.5.a Page IV-158
46	The ICC will be designed to reduce existing and potential impacts through SWM and other minimization measures in the Indian Creek watershed where channel erosion, instream sedimentation and downstream deposition exist due to past and active mining operations.	Stormwater Management	CH IV.F.5.a Page IV-159
47	Detailed hydrology and hydraulic studies will be performed during project design to further evaluate the effects of the roadway construction on floodplain elevations and determine additional opportunities to avoid and minimized floodplain impacts.	Floodplains	CH IV.F.3.c Page IV-147
48	The ICC will be designed and constructed such that wildlife corridors will be maintained between forested areas where practicable.	Fish and Wildlife	CH IV.F.8.b Page IV-264
49	The ICC will be designed to decrease the potential for deer collisions. Design methods will include bridges with adequate underpass space, culverts with a minimum height of eight feet, eight feet fencing along long stretches of roadway, one-way wildlife gates, retaining walls and wildlife reflectors.	Fish and Wildlife	CH IV.F.9.c Page IV-275

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
50	Chain-link wildlife exclusion fencing will be used to funnel deer and other wildlife to wildlife crossings. Chain-link fencing will be a minimum of 8 feet above the ground elevation, and the fence mesh shall penetrate the ground to a depth of one foot. A three-foot high fence, constructed of 0.25" x 0.25" square wire mesh hardware cloth material shall be attached to the outside of the chain-link fencing where the fencing is adjacent to forested areas, stream valleys and SWM ponds, and buried to a depth of at least 6 inches, to form an impenetrable barrier to reptiles and amphibians. The wildlife exclusion fencing shall extend along the highway approximately one-half mile in each direction from each wildlife passage culvert or bridge, except where the fence will be connected to noise barriers or retaining walls that are of sufficient height to exclude wildlife from the highway. Interchanges will be fenced to the best extent practicable.	Fish and Wildlife	CH IV.F.9.c Page IV-275 CH IV.F.9.d Page IV-283 Post-FEIS Coordination
51	SHA will conduct additional literature search for appropriate structures for reptile and amphibian passage. Any findings will be coordinated with the Interagency Working Group (IAWG).	Fish and Wildlife	CH IV.A.8 Page IV-11
52	Noise mitigation (including all feasible and reasonable criteria including cost averaging identified in the FEIS) will be further evaluated for all impacted Noise Sensitive Area's (NSA) during subsequent project design stages. Final recommendations, including community coordination, will occur during final design of the ICC. Locations for further evaluation include: Parkside Estates, Redland Station; Redland, Sycamore Acres; The Preserve, Oakdale, Longmead, Longmead Crossing, Gayfields, Longmead; Bel Pre Manor, Sherwood Forest, Stonegate; Stratford Manor Terrace; South Stonegate, Colesville Manor, Colesville, Spring Oak Estates; Gum Springs; Maydale; Stonecrest; Avonshire, Fairland, Tanglewood, Greencastle/Burtonsville, Saddle Creek, Greencastle Manor and Mayfair/Muirkirk. Based on post FEIS coordination to date noise barriers will be provided within the Cashell Estates/Winter's Run Community.	Noise	CH IV.G.3.c Page IV-303 Post FEIS Coordination ROD Attachment D
53	A detailed site-specific analysis of potential noise barrier reflections (and associated analysis of noise sound absorptive finishes) related to noise barriers will be conducted (where required) during design.	Noise	CH IV.G.1 Page IV-302
54	Design of the ICC will include bridge spans greater in length than required hydraulically to reduce fill and avoid and minimize impacts to stream channels, wetlands and floodplains.	General	CH IV.F.5.a Page IV-165

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
55	Context sensitive designs, such as decorative finishes, will be used to help reduce visual impacts of structures by providing more aesthetically pleasing features.	Stream Crossings/ Aesthetics	CH IV.A.3 Page IV-2
56	In Rock Creek Regional Park, a 300 foot bridge will span Rock Creek to provide a wildlife passage and connectivity between the portions of the park located north and south of the ICC. The bridge over Rock Creek will be constructed such that the profile grade line (PGL) at centerline Station 240+00 is 52 feet above the elevation of the floodplain floor immediately below, and shall be an arch design.	Parkland	CH V.E.2.b.i Page V-18 Post FEIS Coordination
57	In Rock Creek Regional Park and North Branch Stream Valley Park retaining walls will be designed to minimize impacts, and the alignment of the MD 115 overpass and its approaches will avoid Section 4(f) use of the nearby historic Cashell Farm property.	Parkland	CH IV.B.3.b Page IV-43
58	In North Branch Stream Valley Park, the ICC will span the two streams to include wildlife passages at both stream locations and to maintain connectivity between the portions of the park. The bridge over North Branch Rock Creek will be constructed such that the PGL at centerline Station 320+00 is 26 feet above the elevation of the floodplain floor immediately below, shall be approximately 285 feet long, and shall avoid permanent fill being placed on the floor of the 100-year floodplain, or in Wetland 1W.	Parkland	CH V.E.2.c Page V-20 Post FEIS Coordination
59	The bridge over the Tributary to North Branch Rock Creek shall be constructed such that the PGL at centerline Station 327+00 is 14 feet above the elevation of the floodplain floor immediately below, and shall be approximately 135 feet long (measured along the highway centerline) or approximately 84 feet measured perpendicularly between the abutment faces. This will require a relocation of the stream beneath the structure. Retaining walls or wing walls will be addressed to ensure that the structure and fill are no closer than 20 feet to any streambank, and will be constructed to limit the encroachment of fill material into Wetlands 1Z, 1ZA, or 1W. If riprap is required on the floodplain floor, it shall be buried as not to impede wildlife passage.	Parkland	CH V.E.2.c Page V-20 Post FEIS Coordination

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
60	<p>Within Northwest Branch Recreational Park, the ICC will span the Northwest Branch with a bridge to provide a wildlife passage and maintain limited connectivity between the park located north and south of the ICC. The westernmost bridge over Northwest Branch will be constructed such that the PGL at centerline Station 533+00 and the PGL at centerline Station 535+00 are 44 feet and 39 feet, respectively, above the elevation of the floodplain floor immediately below. The bridge shall be approximately 575 feet long, and shall result in no permanent fill in Wetland 2R, and no permanent fill in the channel of the tributary that enters the floodplain on the west side of the stream, south of the highway.</p>	Parkland	<p>CH V.F.2.a.ii Page V-43 Post FEIS Coordination</p>
61	<p>Within Northwest Branch Stream Valley Park – Unit 5, the ICC will span two streams with a bridge to provide wildlife passages at these locations, and to maintain connectivity. The bridge over Bonifant Road and Northwest Branch shall be constructed such that the PGL at centerline Station 560+00 is 46 feet above the elevation of the floodplain floor immediately below, shall be approximately 885 feet long, and shall result in no permanent fill within 30 feet of the top of the streambank.</p>	Parkland	<p>CH V.F.2.a.iii Page V-44 Post FEIS Coordination</p>
62	<p>The easternmost bridge over Northwest Branch shall be constructed such that the PGL at centerline Station 594+00 is 48 feet above the elevation of the floodplain floor immediately below, shall be approximately 1,140 feet long, and, utilizing retaining walls, shall result in no permanent fill within 30 feet of the top of the streambank of Northwest Branch or the Rolling Stone Tributary, and shall avoid discharge of permanent fill in the stream channel of the tributary coming from Mills Avenue. This requirement shall not apply to fill associated with potential wetland or stream restoration efforts in this area to correct significant head cuts eroding into the floodplain.</p>	Parkland	<p>CH V.F.2.a.iii Page V-44 Post FEIS Coordination</p>

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
63	<p>Within Upper Paint Branch Stream Valley Park, the ICC will bridge three streams (Good Hope, Gum Springs and Paint Branch) in order to include wildlife passages and provide connectivity. The bridge over Good Hope Tributary will be constructed such that the PGL at centerline Station 690+00 is 66 feet above the elevation of the floodplain floor immediately below, shall be approximately 590 feet long, and, utilizing retaining walls, shall result in no permanent fill within 30 feet of the top of either streambank. This profile is designed to preclude the discharge of runoff into Good Hope and Gum Springs Tributaries. If it is determined that an alternative means of ensuring that the highway runoff can be collected, treated, and discharged to the Paint Branch mainstem, with no runoff directed to the Good Hope or Gum Springs Tributaries, the vertical under clearance (from the bottom of superstructure steel to floodplain floor) could be as low as 45 feet, in which case the bridge length shall be sufficient to maintain a bottom opening on the ground of 380 feet, measured between the toes of fill, directly beneath the highway centerline.</p>	Parkland	CH V.F.2.a.iv Page V-45 Post FEIS Coordination
64	<p>The bridge over Gum Springs Tributary and Paint Branch mainstem will be constructed such that the PGL at centerline Station 742+00 and the PGL at centerline Station 749+00 are 43 feet and 38 feet, respectively, above the elevation of the floodplain floor immediately below. The bridge shall be approximately 1,280 feet long and, utilizing retaining walls, shall result in no permanent fill within the limits of the 100-year floodplain, no permanent fill in wetland 3M, and no permanent fill in the channel of the portion of tributary 3M located to the rear of the properties on Creek Side Drive.</p>	Parkland	CH V.F.2.a.iv Page V-45 Post FEIS Coordination
65	<p>The bridge over Little Paint Branch will be constructed such that the PGL at centerline Station 880+00 is 40 feet above the elevation of the floodplain floor immediately below, shall be approximately 530 feet long, and shall result in no permanent fill within 30 feet of the top of any streambank.</p>	Parkland	Post FEIS Coordination
66	<p>Champion and specimen trees have been identified within the project study area. SHA will coordinate with the design team to identify and provide a buffer for any such tree outside of the area to be cleared to avoid its removal during clearing and grubbing activities.</p>	Forest / FIDS	CH IV.F.8.c Page IV-267

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
67	Culverts and bridges have been conceptually designed to accommodate wildlife passages at 26 different stream crossings. The areas include: I-370 Ramps (2 locations) and at Stations 150+00, 173+00, 207+00, 240+00, 276+00, 301+00, 312+00, 320+00, 327+00, 360+00, 415+00, 420+00, 433+00, 435+00, 533+00, 555+00, 595+00, 654+00, 673+00, 690+00, 740+00, 750+00, 839+00, 880+00 and 978+00.	Fish and Wildlife	CH.IV.F.9.d Page IV-276 ROD Attachment D and Figure 4
68	Minor alignment shifts to further avoid or minimize impacts to especially sensitive habitats for birds, such as forest interior, will be considered during the final design phases of the project.	Fish and Wildlife	CH IV.F.9.e Page IV-288
69	Consideration will be given to enhancing amphibian passage opportunities including culvert designs with natural substrates that maintain some debris for cover and moisture retention.	Amphibian Passage/ Vernal Pools	CH IV.F.9.d Page IV-283
70	All required relocations for displaced residences, businesses and community facilities will be accomplished in accordance with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970 as amended by Title IV of the Surface Transportation & Uniform Relocation Assistance Act of 1987 and Public Law and Title 49 CFR Part 24.	Socio-Economic	CH IV.B.1.b Page IV-14
71	Landscape plans will be developed and implemented between the ICC and the historic Cashell Farm and Willow Grove properties.	Cultural Resources	CH VII.C.3k Page VII-81 & MOA
72	Additional archeological surveys will be completed (and survey findings reported) to identify resources potentially eligible for the National Register of Historic Places (NRHP) that may be impacted by the ICC.	Cultural Resources	CH IV.E.3b Page IV-128 & MOA
73	A plan will be developed and implemented for the appropriate treatment of any eligible National Register eligible archeological resources that may be impacted by the ICC.	Cultural Resources	CH IV.E.3b Page IV-128 & MOA
74	The effect of any additional related ancillary activities or alignment modifications to the ICC on historic properties will be considered.	Cultural Resources	CH IV.E.3a Page IV-128 & MOA
75	As defined in the Section 106 MOA, a Wayfinding program will be developed to assist motorists in identifying heritage tourism opportunities in the Montgomery County Heritage Area (MCHA) and the Anacostia Trails Heritage Area (ATHA).	Cultural Resources	CH VI.C.3.k Page VII-81 & MOA
76	Design of the ICC will avoid Bridge M-56B, a NRHP eligible historic resource located along Redland Road.	Bridges	CH IV.B.3.b Page IV-41

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
77	If the hazardous materials sites identified in the FEIS cannot be avoided, remediation will be completed in accordance with MDE requirements.	HAZMAT	CH IV .I.1b. Page IV-329 Attachment D
78	An Environmental Management Plan (EMP) will be implemented for the duration of design and construction of the ICC and its related compensatory mitigation and environmental stewardship projects. The Environmental Management Team (EMT) will provide up-to-date information on program elements, successes and challenges, compliance levels, and overall project progress to IAWG.	Environmental Management Team	CH IV.A.7 Page IV-7/8 & MOU
79	A commitments/permit tracking database (CTD) will be developed to follow all environmental commitments through design, construction and post-construction monitoring. Regulatory and resources agencies will be provided access to the regularly updated database to monitor environmental commitments.	Environmental Management Team	CH IV.A.7 Page IV-8 & MOU
80	The EMT will work closely with the engineering design team to insure that all commitments are met during the design process and that all possible avoidance and minimization measures continue to be explored as design moves forward. Design will be reviewed before construction begins on all design sections to ensure compliance with Record Of Decision Commitments and any potential future Permit Conditions for the particular section.	Environmental Management Team	CH IV.A.7 Page IV-9 & MOU
81	The Lead Agencies will provide an Independent Environmental Monitor (IEM) with no affiliation with the design, or construction aspects of the project to review the final design plans and monitor construction. The IEM will be a full-time, on-site extension of regulatory agencies. The IEM will communicate issues concurrently to the Lead agencies and permitting agencies so that all parties are informed and involved in the solution process.	Environmental Management Team	CH IV.A.7 Page IV-10 & MOU
82	The Lead Agencies will commit to the Special Conditions of the Section 404 Permit of the Clean Water Act in the development of design plans and during construction of the ICC should a permit be issued.	Permits Required	CH IV.F.5.a Page IV-165
83	A Nontidal Wetlands and Waterways Permit for proposed impacts to nontidal wetlands and waterways and the 100-year floodplain will be obtained from MDE. The Lead Agencies will commit to the Special Conditions of the Nontidal Wetlands and Waterways Permit in the development of design plans and during construction of the ICC. The Lead Agencies will also commit to MDE § Detailed Special Conditions should a permit be issued.	Permits Required	CH IV.F.7.a Page IV-208

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No.	Commitments	Category	FEIS Section Reference
84	Coverage under an existing National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges issued by MDE will be extended to include the ICC.	Permits Required	CH IV.F.5.a Page IV-170 Post FEIS Coordination
85	MDE approval for Stormwater Management and Erosion and Sediment Control will be obtained as design and construction proceed.	Permits Required	CH III.E.2.c Page III-33
86	Best Management Practices (BMPs) will be implemented, in accordance with MDE guidelines, as the primary avoidance and minimization measure to reduce the indirect impacts of increased imperviousness.	Stormwater Management	CH IV.F.5.a Page IV-167
87	The ICC will include tolling facilities and the collection of tolls will not affect the footprint of the facility and not require additional Right-of-Way (ROW).	General	CH III.E.2.a Page III-31
88	Culverts designs will be coordinated with local resource managers where fish passage locations are of particular concern and where additional measures beyond MDE requirements are identified in the FEIS. Design techniques will be utilized to align culverts, bridge piers and abutments to better conform to the natural geomorphology of the streams to the extent practicable. In areas where culverts are proposed (Table IV-76 on Page IV-276 of the FEIS), culvert bottoms will be buried wherever feasible to allow a natural stream bottom to form within the culvert in accordance with MDE requirements. Culverts will be provided to the geomorphic characteristics of local streams to avoid downstream scour, channel degradation, and reduce the potential for creating fish blockages.	Stream Crossings	CH IV.A.3 Page IV-3
89	Roadway construction within areas of identified hydric and highly erodible soils will be appropriately designed to account for these soils.	Soils	CH IV.F.1.b Page IV-136
90	New bicycle racks will be provided at existing park-n-ride facilities adjacent to the ICC and at those to be constructed as part of the ICC.	Bicycle/ Pedestrian Trail	ROD
Construction			
91	Environmentally sensitive construction techniques will be implemented as part of further design efforts to aid in the ongoing minimization of impacts to natural, cultural, and socioeconomic resources.	General	CH IV.A.8 Page IV-11

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
92	<p>Temporary construction impacts to stream channels and other sensitive resources will be minimized by implementation of:</p> <ul style="list-style-type: none"> • Design of redundant sediment and erosion control measures in the Special Protection Area (SPA) watersheds to mitigate for potential failures during large runoff events. • Use of equipment fitted with low-pressure tires or tracks in SPA's, streams and wetlands and other sensitive areas that will be monitored during project construction. • Locating construction access roads that avoid streams and wetlands wherever possible. • Using timber matting, geotextiles, and temporary bridge structures for construction access roads through wetlands and streams will be used when complete avoidance is not possible. • Stringent use and maintenance of state of the art sediment and erosion control measures during construction that in many cases exceed MDE regulations. 	Erosion and Sediment Control	CH IV.F.5.a Page IV-166
93	Impacts to interior forest habitat and their buffers should be avoided during construction, when possible, from April to August, which is the breeding season for most forest interior dwelling species (FIDS).	FIDS	CH IV.F.8.b Page IV-264
94	Construction will be subject to a stormwater construction National Pollution Discharge Elimination System (NPDES) permit. State-of-the-art controls for both coarse and fine sediment will be implemented in compliance with MDE regulations and will exceed MDE regulations in designated SPAs. Redundancy of controls will be included in Upper Rock Creek SPA and Upper Paint Branch SPA to minimize potential control failures that could deliver sediment-laden runoff to these sensitive tributary streams.	Stormwater Management	CH IV.A.6 Page IV-7
95	ICC construction will include removal of an existing impoundment used as gravel mining wash pond and provisions for addressing SWM including channel protection volume to allow Indian Creek to achieve some degree of natural recovery from existing conditions.	Stormwater Management	CH IV.F.7.e Page IV-233
96	Proper slope and soil stabilization techniques will be used in compliance with MDE regulations to prevent soil erosion from work areas and transported into nearby waterways (both during and after construction).	Stormwater Management	CH IV.F.1.a Page IV-134
97	Construction of the ICC will include Erosion and Sediment Controls, including runoff filters (silt fences, super silt fences, and inlet protection devices), water handling devices (earth dikes, temporary swales, and storm drain diversions), sediment trapping devices (sediment traps and basins), dewatering devices (sump pits, sediment tanks and removable pumping stations), and other BMPs as appropriate.	Stormwater Management	CH III.E.2.c Page III-34

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
98	Fish relocation methods successfully used on other projects to reduce fish mortality will be employed during in-stream construction of the ICC to reduce impacts to aquatic biota wherever possible.	Fish and Wildlife	CH IV.F.6.b Page IV-205
99	A monitoring plan will be developed to minimize any potential blasting effects. This plan will identify the best techniques for use during construction, as well as monitoring, permits and license requirements.	Geology	CH IV.F.1.b Page IV-136
100	Temporary impacts to regulated waterways and non-tidal wetlands will be avoided and/or minimized to the greatest extent possible. Restoration of regulated areas impacted by temporary construction activities will be included in the project design and related construction documents, and coordinated with the regulatory resource agencies.	Temporary Impacts	CH IV.F.7.d Page IV-221
101	All in-stream work for culverts and bridges will be carried out in compliance with the stream closure period for the designated use class of streams in the study area for the protection of aquatic species during construction. The stream closure period required by the designated use class as defined by MDE will be adhered to unless a waiver is granted by MDE.	Sediment and Erosion Control	CH IV.A.6 Page IV-7
102	An incentive program will be implemented during construction to promote the further reduction of resource impacts (including wetlands, streams, and forest).	Construction	Post FEIS Coordination
103	The Comely Shiner is currently considered a State Threatened Species and is known to exist in Northwest Branch, North Branch of Rock Creek and a tributary to Little Paint Branch. No in stream construction will occur in these streams where the species is known to exist from April 15 th to July 31 st .	RTE's	CH IV.F.10.a Page IV-291
104	Construction of replacement vernal pools will be considered but not limited to North Branch Rock Creek and Northwest Branch. In coordination with M-NCPPC, areas may be identified on parkland and in close proximity to the ROW that will not require additional forest clearing. Design and construction of vernal pools will be coordinated with the IAWG. In addition, vernal pools will be created in floodplains where practicable, including possible post construction use of sedimentation basins.	Amphibian Passage/ Vernal Pools	CH IV.F.9.d Page IV-283 Post FEIS Coordination
105	Access to Parkside Estates will be maintained along Shady Grove Road.	Socio-Economic	CH IV.B.3.b Page IV-37
106	The sidewalk along Shady Grove Road in Parkside Estates Community Area will be retained for walkers and bikers in the community.	Socio-Economic	CH IV.B.3.b Page IV-37

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
107	Pedestrian passage within Little Paint Branch Stream Valley Park will be maintained beneath the proposed ICC bridge over Little Paint Branch.	Socio-Economic	CH IV.B.3.b Page IV-62
108	Access to local roads will be maintained for businesses during construction of the ICC.	Socio-Economic	CH IV.C.2 Page IV-93
109	Construction equipment will be maintained to minimize noise emissions caused by inefficiently tuned engines, poorly lubricated moving parts and poor-ineffective muffling/exhaust systems.	Noise/Air	CH IV.G.5 Page IV-306
110	The Lead Agencies will require the implementation of a Diesel Emission Reduction Plan for construction purposes. Mobile source emissions can be reduced during construction by use of retrofits-oxidation catalysts on equipment and not permitting idling of delivery trucks or other equipment during long periods of time for unloading. This will be monitored during project construction.	Noise/Air	CH IV.H.8 Page IV-328 Post FEIS Coordination
111	In the event of a chemical spill, storm drains will be blocked for containment purposes and emergency response clean-up before or during fire fighting to prevent large amounts of contaminated water from entering the larger SWM facilities.	HAZMAT	CH IV.F.2.c Page IV-141
112	No Section 4(f) property outside of the proposed limit of disturbance identified in the FEIS will be used for construction staging without proper approval by the property owner.	Section 4(f)	Post FEIS Coordination
113	The EMT will have an understanding of the construction plans, permit-defined limits of disturbance, the approved erosion and sediment control plans, and all permit requirements and will work closely with the contractors and construction inspectors to foresee and avoid potential problems. The EMT will identify, react to and resolve unforeseen issues in the field and will produce weekly inspection reports, erosion and sediment control rating reports, and quarterly CTD reports.	Environmental Management Team	CH IV.A.7 Page IV-9
114	The Lead Agencies will commit to the Special Conditions of the Section 401 water quality certification (in accordance with the Federal Clean Water Act) and the Maryland waterway construction permit (for direct impacts in streams and floodplains) should this certification and permit be issued.	Permits Required	CH IV.F.5.a Page IV-165
115	The Lead Agencies are aware of and have analyzed flooding issues along US 1 in the vicinity of the ICC terminus. Construction of the ICC will address flooding issues along US 1 in the vicinity of the eastern terminus. Any drainage improvements associated with the ICC will take into account the appropriate storm return periods.	Stormwater Management	Post FEIS Coordination

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No.	Commitments	Category	FEIS Section Reference
Mitigation/Environmental Stewardship Efforts			
116	Mitigation planning has been coordinated with the USACE, MDE, and other resource agencies on a continuing basis throughout the ICC study. The watershed-based approach was used for the mitigation site search and selection process. This process included the integration of the mitigation into watershed plans while using functional assessment and previous resource agency studies to determine watershed needs. A key component of the approach was to identify mitigation sites that would protect and enhance water quality, improve stream channel stability, fisheries, and wildlife habitat.	Mitigation	CH IV.F.7.f Page IV-238
117	Parkland replacement will be provided, in coordination with jurisdictional officials, to help preserve undeveloped land in sensitive watersheds and provide additional reforestation, while effectively replacing the functions and values of the parkland impacted by the ICC.	Parkland	CH VII.C.3.k Page VII-77
118	The Lead Agencies will dedicate the Llewellyn Property, Peach Orchard Allnut Property, Southern Asia Adventist Property, and McNeill Property (listed in Table VII-19 on pages VII-56-57 of the FEIS) to Maryland-National Capital Park and Planning Commission (M-NCPPC) as mitigation sites.	Parkland	CH VII.C.3.k Page VII-78 - 79
119	The Lead Agencies will ensure M-NCPPC acquires the title to the Dungan Property North (listed in Table VII-19 on page VII-56 of the FEIS) as a mitigation site.	Parkland	CH VII.C.3.k Page VII-79 Post FEIS Coordination
120	The Lead Agencies will dedicate the Casey Property at Hoyles Mill (listed in Table VII-19 on page VII-58 of the FEIS) to M-NCPPC as a mitigation site requiring that the remaining property be retained as forest in perpetuity. DOI recommends that the agricultural fields be planted, with the dominant trees on the property which would include native oaks (<i>Quercus</i> sp.), hickories (<i>Carya</i> sp.) and tulip popular (<i>Liriodendron tulipifera</i>).	Parkland	CH VII.C.3.k Page VII-58 Post FEIS Coordination
121	The Lead Agencies will preserve the Santini Road Property (listed in Table VII-19 on page VII-57 of the FEIS) as a mitigation site. A conservation easement will be placed on the land prior to it being transferred to WSSC.	Parkland	CH VII.C.3.k Page VII-57 Post FEIS Coordination

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No.	Commitments	Category	FEIS Section Reference
122	<p>Reforestation will be concentrated along streambanks that lack forested buffers, forested riparian areas less than 300 feet wide, areas within project ROW, on public land located within the county/watershed and open areas within or adjacent to existing FIDS habitat.</p> <p>Reforestation will occur in the following locations:</p> <ul style="list-style-type: none"> • Washington Suburban Sanitary Commission (200 acres) • Maryland Department of Natural Resources (200 acres) • Maryland-National Capital Park and Planning Commission (75-100 acres) • Parkland Mitigation Sites (100 – 150 acres) • Wetland/ Stream Compensatory Mitigation and Environmental Stewardship Sites (75 acres) • Unassigned SHA Reforestation Acreage within Montgomery and Prince George’s Counties (50 to 75 acres) • Reforestation with the Proposed ICC ROW (75 – 100 acres) 	FIDS	CH IV.F.8.b Page IV-264 ROD Attachment D
123	<p>Reforestation sites will be compared with restoration needs identified through the Green Infrastructure Assessment to ensure consistency with DNR’s Green Infrastructure Program. This will include the Casey Property at Hoyles Mill (listed in Table VII-19 on page VII-58 of the FEIS).</p>	Forests/ FIDS	CH IV.F.8.a Page IV-255 CH VII.C.3.k Table VII-19
124	<p>The Lead Agencies will comply with the Maryland Reforestation Law and will coordinate with interested agencies in specific FIDS habitat restoration goals</p>	Forests/ FIDS	CH IV.F.8.b Page IV-265
125	<p>Mitigation of impacts to bird habitat will be accomplished through required reforestation for tree clearing.</p>	Fish and Wildlife	CH IV.F.9.e Page IV-288
126	<p>The implementation of Environmental Stewardship will be coordinated in accordance with relevant provisions of the Section 106 MOA.</p>	Cultural Resources	CH VI.C.2a Page VI-12 & MOA

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No.	Commitments	Category	FEIS Section Reference
127	<p>A Compensatory Mitigation Package has been designed to fulfill the mitigation requirements, as well as meet the resource protection goals of the resource agencies and the Lead Agencies. These are described in Table IV-70 on Page IV-240 and located on Figure IV-5 in Volume 2 of the FEIS. The stream restoration and water quality projects included in the compensatory mitigation package include many of the following types of stream improvements: aquatic habitat enhancement; fish passage restoration; bank stabilization; floodplain reconnection; riparian buffer enhancement; outfall protection; structure scour protection; stormwater retrofits; small scale BMPs; removal of existing culverts and impervious area. In addition to traditional stream restoration projects, fish blockage removal and SWM retrofits identified by Federal, State, and local resource agencies are included in the compensatory mitigation package. . <i>Stream restoration and water quality mitigation will include the following sites:</i></p> <p><u>Stream Restoration Sites</u></p> <ul style="list-style-type: none"> • IC-59 (1,100 linear feet) • IC-62 (1,900 linear feet) • NW-160 (11,000 linear feet) • PB-12B (4,500 linear feet) • PB-119 (1,000 linear feet) • PB-8 (1200 linear feet) <p><u>Water Quality Sites</u></p> <ul style="list-style-type: none"> • PB-33 (80 acres) <ul style="list-style-type: none"> • PB-43 (40 acres) • PB-46A (22 acres) • PB-114A (70 acres) • PB-49 (134 acres) <p><u>Fish Passage Sites (Blockage Removal):</u></p> <ul style="list-style-type: none"> • PB-93A (500 linear feet) • RC-131 (500 linear feet) • RC-131A (500 linear feet) 	Mitigation	<p>CH IV.F.7.f. Page IV-237 ROD Attachment D</p> <p>Figure 4</p>
128	SHA will consider suitable backup wetland creation sites closer to the project area if, for technical reasons, one of the preferred backup mitigation sites identified in Table IV-71 on Page IV-243 is not feasible. Any proposed back-up replacement site would be coordinated with the IAWG.	Mitigation	CH IV.F.7.f. Page IV-237
129	Unavoidable direct impacts to stream channels will be mitigated in accordance with State and Federal regulations.	Mitigation	CH IV.F.6.b Page IV-205
130	Mitigation sites will be monitored in accordance with the Mitigation Management Plan approved by the regulatory agencies. A Mitigation Management Plan will be developed prior to any mitigation construction.	Mitigation	CH IV.F.7.g Page IV-245 & MOU
131	Existing conditions at mitigation sites will be summarized in a report accompanied by a conceptual restoration plan and evaluated to determine if the site is suitable to proceed into design.	Mitigation	CH IV.F.7.f Page IV-239

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No.	Commitments	Category	FEIS Section Reference
132	<p>Emergent wetlands will be mitigated on a 1:1 replacement basis. Forested and scrub-shrub wetlands will be mitigated on a 2:1 basis. Wetland creation mitigation will include the following sites:</p> <ul style="list-style-type: none"> <li style="display: inline-block; width: 45%;">• MR-5 (19 acres) <li style="display: inline-block; width: 45%;">• SC-19 (19 acres) <li style="display: inline-block; width: 45%;">• SC-2 (21 acres) <li style="display: inline-block; width: 45%;">• SC-21 (6 acres) <li style="display: inline-block; width: 45%;">• NW-128 (3 acres) <li style="display: inline-block; width: 45%;">• NW-69 (3 acres) <li style="display: inline-block; width: 45%;">• PB-1 (12 acres) 	Mitigation	<p>CH IV.F.7.f Page IV-235 ROD Attachment D Figure 4</p>
133	<p>Mitigation for wetlands will not occur in areas where bridge heights are greater than 30 feet. Forested wetlands beneath bridges, with proposed clearances less than 30 feet in height, will be considered as converted to emergent wetlands and mitigated on a 1:1 replacement basis.</p>	Mitigation	<p>CH IV.F.7.f Page IV-235</p>
134	<p>National Environmental Policy Act (NEPA) and technical assessments will be conducted for each compensatory wetland mitigation site to confirm that the site will not have an adverse effect on the natural, social and/or cultural environment.</p>	Mitigation	<p>CH IV.F.7.f Page IV-239</p>
135	<p>The ICC's Environmental Stewardship Projects will be implemented to improve areas of need identified through agency and public input.</p>	Environmental Stewardship	<p>CH III.E.2.d Page III-35</p>

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No.	Commitments	Category	FEIS Section Reference																																																																																																						
136	<p>The ICC includes “Environmental Stewardship” (ES) features that exceed the compensatory mitigation requirement. This will include state-of-the-art efforts focused on restoring, recreating, or enhancing study area features’ functions and values from past developments. Candidate ES features for the ICC were developed during the DEIS and FEIS and are continuing to be evaluated to address priority restoration and/or enhancement needs for both the human and the natural environment. Types of projects include providing bike/pedestrian trails, rehabilitation of historic structures, signage to identify and direct interests to cultural resources, providing sidewalks to communities, schools and/or other community facilities, riparian buffer enhancement and/or reforestation, stream restoration, wetland creation, preservation, and/or enhancement, stormwater management improvements, special protection area best management practices and fish blockage removal. Candidate ES projects include the following sites (See Attachment B for details):</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Community/Cultural:</td> <td style="width: 33%;">NB-3 (4,000 l.f.)</td> <td style="width: 33%;">Wetland Creation:</td> </tr> <tr> <td>14,500 l.f Ped/Bike Trail</td> <td>NW-50 (1,000 l.f.)</td> <td>RC-36 (3 acres)</td> </tr> <tr> <td>10,000 l.f Asphalt Trail</td> <td>PB-109 (2,500 l.f.)</td> <td>LP-17 9 (2 acres)</td> </tr> <tr> <td>Restore Woodlawn Barn</td> <td>NW-4 (3,800 l.f.)</td> <td>SPAs/BMPs</td> </tr> <tr> <td>Wayfinding and Signage</td> <td>NW-51 (300 l.f.)</td> <td>PB-113 (63 acres)</td> </tr> <tr> <td>2,000 l.f. 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137	<p>SHA will consider suitable backup wetland creation sites closer to the project area if, for technical reasons, one of the preferred backup environmental stewardship sites identified in FEIS Table VI-7 on Page VI-27 and in the ROD are not feasible. Any proposed back-up replacement site would be coordinated with the IAWG.</p>	Environmental Stewardship	CH VI Page VI-27 ROD Attachment B																																																																																																						

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
138	The EMT will closely coordinate and track the implementation of all mitigation and stewardship commitments until their completion to insure that individual projects are successful in meeting mitigation and stewardship goals established in the Mitigation and Stewardship packages.	Environmental Management Team	CH IV.A.7 Page IV-10 & MOU
139	The Lead Agencies will conduct mitigation monitoring in compliance with any potential future permit requirements. Wetland mitigation projects will be monitored in accordance with most recent guidelines developed by the ACOE and MDE.	Permit Monitoring	CH IV.A.7 Page IV-235 Post FEIS Coordination
140	Just compensation will be provided to farm owners whose property is within the required ROW (FPPA, 1981). If impacts were to interrupt viable farm operations, financial compensation would be considered as a mitigation option. However, it should be noted that the majority of farmlands identified are proposed for residential or commercial development.	Farmland	ROD Attachment D
Additional Coordination			
141	Project design coordination with Prince George's and Montgomery counties will continue to monitor impacts to wells and septic systems within the study area. In locations where the ICC will directly impact private wells, they will be properly abandoned and closed in accordance with Maryland Department of the Environment (MDE) regulations.	General	CH IV. F.2.a Page IV-140 CH.IV.I.c Page IV-329
142	SHA is considering building a pedestrian bridge over the ICC in Longmead and will continue to coordinate with the community.	Aesthetics/ Socio- Economic	CH IV.B.3.b Page IV-25 & Appendix R8
143	Coordination between Federal, State and local government agencies will continue during construction of the bicycle/pedestrian route beyond the current limits of logical termini as shown in the FEIS and identified in the ROD. The logical termini link together areas where an ICC trail user could access and exit the trail with connections to other useable routes.	Bicycle/ Pedestrian Trail	CH III.E.3.b Page III-45 ROD Figure 3
144	MDE approved hydraulic models will be used and coordinated with Federal Emergency Management Agency (FEMA) during detailed design to more precisely determine the impacts to regulated floodplains and floodways and to identify opportunities to avoid and minimize impacts, and potential mitigation measures to address unavoidable impacts.	Floodplains	CH IV.F.3.c Page IV-147
145	Coordination with DNR and M-NCPPC will continue during design and construction to ensure that adequate reforestation acreage has been located in accordance with the compensatory mitigation requirements of the Maryland Reforestation Law.	Forests/ FIDS	CH IV.F.8.a Page IV-255

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
146	Avoidance efforts will be ongoing during design and construction with DNR and M-NCPPC representatives, with special emphasis on State endangered and threatened species including trailing stitchwort, rough-leaved aster, and halberd-leaved greenbrier.	RTE's	CH IV.F.10.c Page IV-297
147	SHA will continue to meet with all individual communities and affected property owners that will be directly impacted by the ICC. This allows each community/property owner to have full and fair access to project related information throughout the design and construction phases of the ICC.	Community	CH VIII.B.10 Page VIII-16
148	FHWA, Maryland State Preservation Officer (MD SHPO), MdTA and SHA have committed to the Stipulations of the Section 106 Memorandum of Agreement (MOA) to address the effects of the ICC on historic properties. These Stipulations include: Treatment of Architectural Historic Properties, Treatment of Archeological Resources, Unexpected Discovery of Historic Properties, Ancillary Activities and Alignment Modifications, Environmental Stewardship, Other Environmental Stewardship Features, Professional Standards, Dispute Resolution, Resolution of Objections by the Public and Annual Reviews as outlined in the MOA until such time the 15 year maximum duration of the MOA expires or is terminated.	Cultural Resources	CH IV.E.3a Page IV-128 & MOA ROD Attachment D
149	The Lead Agencies will continue to consult with the ATHA and/or MCHA management entities regarding impacts to standing historic properties and/or eligible archeological resources that are identified.	Cultural Resources	CH IV.E.43.c Page IV-131
150	SHA will assist the M-NCPPC – Montgomery County with the rehabilitation of the Woodlawn Barn as a visitor center as defined in the Section 106 MOA.	Cultural Resources	CH VII.C.3.k Page VII-81 & MOA
151	An annual report will be prepared for the MD SHPO addressing the progress and status of implementing the MOA's stipulations for the given reporting year.	Cultural Resources	CH VII.C.3.k Page VII-81 & MOA
152	Any unneeded portions of SHA-owned property in the vicinity of Upper Paint Branch Stream Valley Park (parcels 23, 24, 25 and 26 as identified on Figure 1 of the Addendum to the Section 4(f) Evaluation) will be offered to M-NCPPC as replacement parkland.	Section 4(f)	Post FEIS Coordination
153	SHA will pursue designating US 29, south and north of the Patuxent Reservoir crossing, as a HAZMAT-restricted route based on the provisions of the Hazardous Materials Transportation Act (49 U.S.C.A 5101 et seq.; 49 C.F.R.397.61 et seq.).	HAZMAT	CH IV.F.5.c Page IV-193

Attachment E: Summary List of Project Commitments

No.	Commitments	Category	FEIS Section Reference
154	A Memorandum of Understanding (MOU) will be established to maintain the partnership between the Lead Agencies, resource agencies and permitting agencies along with county agencies to assure that the avoidance, minimization, mitigation and environmental stewardship efforts committed to through the NEPA process, are realized through design and construction of the ICC. Coordination will continue throughout the design and construction phases to discuss refinements in accordance with the MOU.	Environmental Management Team	Post FEIS Coordination & MOU
155	Prior to implementation of ICC construction, project plans will be provided to the Maryland Department of Natural Resources (DNR) for review and approval with the Maryland Scenic and Wild Rivers Act.	Approval Required	CH IV.F.5.d Page IV-194
156	Prior to construction, project plans will be provided to DNR for forestry requirements review and approval with the Maryland Reforestation Law.	Approval Required	Post FEIS Coordination
157	The ICC will be designed to include two maintenance facilities required in order to operate and maintain the ICC. The western facility will be a satellite or turnabout facility located at the intersection of Shady Grove Road/Crabbs Branch Way and the eastern facility will be the primary facility located in the northeast quadrant of the ICC/Virginia Manor Road Interchange. Coordination with both Counties will continue to refine the maintenance facility site design. Consideration is being given to reduce the visual impact of the facility through grading, screening and aesthetics. These facilities will be constructed concurrently with the project.	Maintenance Facilities	CH III.E.5 Page III-56-57 Post FEIS Coordination
158	The Lead Agencies will control State noxious weeds as defined by the Maryland Department of Agriculture. In addition, SHA's current program to control certain invasive species including bull and Canada thistle with the use of herbicides will be considered within the ICC ROW. The Lead Agencies will coordinate with park officials prior to spraying on ICC Right of Way adjacent to parks	Fish and Wildlife	CH IV.F.8.d Page IV-267
159	After completion of ICC design and construction, the Lead Agencies will offer M-NCPPC excess state owned lands within Designated Transportation Areas (DTAs) adjacent to parklands. An incentive will be included in the project's performance specification for the protection of DTAs wherever practicable.	Parkland	Post FEIS Coordination
160	The Lead Agencies have agreed to place both Wetland 6J and the rough-leaved aster, located just west of the proposed ICC/Virginia Manor Road interchange, into a conservation easement, which would include a 100-foot buffer around the existing forest line of the area.	Conservation Easement	Post FEIS Coordination

**Attachment F -
Reviews by FHWA Experts Relied
Upon in this Decision**



Memorandum

Office of Planning

Subject: Review of March 23rd Letter from Environmental Coalition

Date: May 10, 2006

From: Bruce D. Spear
Travel Model & GIS Specialist

In Reply Refer To:
HEPP-1

To: Fred Skaer, Director
Office of Project Development & Environmental Review

Per your request, I reviewed those sections of the March 23rd comment letter from the coalition of environmental groups (hereafter referred to as “the coalition”) that pertained to the traffic and induced growth impacts in Final Environmental Impact Study (EIS) for the Intercounty Connector project (ICC).

I could find nothing new in either the coalition’s summary comments on Transportation Effects (pp 59 – 67), or in the accompanying statement by Norman Marshall of Smart Mobility Inc. (hereafter referred to as “Smart Mobility”), which had not already been raised in earlier correspondence from the coalition, and were addressed in the Final EIS document. Each of the specific points raised in the comments letter and statement are discussed briefly below.

1. Flaws in the underlying travel forecasting model.

The letter reiterates a number of flaws in the travel demand models used to forecast the traffic impacts of the ICC preferred alternative against current conditions and a “no build” alternative. The essence of the argument is that the EIS forecasts are based on an “older” version of the MWCOG model (version 2.1C), instead of a more recent model (version 2.1D) that has since been adopted by MWCOG, and which corrects certain conceptual and methodological deficiencies identified in earlier correspondence as well as in a peer review conducted by TRB. The letter states that, in order to satisfactorily correct these flaws, the traffic forecasts need to be rerun using the more recent model. However, in the accompanying statement from Smart Mobility, Mr. Marshall acknowledges that “the ranking of alternatives probably would be the same with either model.” (Smart Mobility, pg 11).

MWCOG updates and enhances its travel demand models on a continuing basis. At the time of the draft EIS, the consultants who conducted the traffic forecasts for the ICC alternatives did use the latest approved model set from MWCOG (Version 2.1C). Although a newer version of the MWCOG model set has since been approved, I don’t believe that any of the enhancements incorporated into the newer model would significantly change the ranking of alternatives in the

EIS. Given that their own consultant also seems unconvinced that the newer travel models would significantly change the results of the analysis, it appears that the only purpose served by the recommended remedy would only be to delay a final decision on the EIS.

2. Flaws in modeling induced development.

The coalition letter states that the Final EIS failed to properly account for the induced development resulting from the construction of the ICC. It claims that the Draft EIS used population and employment forecasts (Round 6.3) for the no-build and preferred alternative that overestimated employment growth in Montgomery County by 50,000 jobs. These estimates were subsequently revised by MWCOG, first to decrease the employment forecast by 50,000 jobs (Round 6.4), and subsequently to add back 25,000 jobs in Montgomery County and 35,000 jobs in Prince Georges County based on recommendations from the expert land use panel (ELUP) to reflect increased development attracted by the ICC (Round 6.4A). Sensitivity analyses conducted for the Final EIS recomputed the traffic forecasts for the preferred alternative using the Round 6.4A population and employment forecasts. However, the coalition letter contends that this sensitivity test was inadequate because it did not recompute the traffic forecasts for the no build alternative using the Round 6.4 baseline population and employment forecasts. The Final EIS does not mention the Round 6.4 forecasts.

In a subsequent discussion with the consultants who conducted the traffic forecasts for the ICC alternatives, I learned that the Round 6.4 land use forecast did not reflect a land use forecast exclusive of the ICC, and consequently is not a valid basis for comparing the land development impacts of the ICC against a “no build” alternative, as suggested in the coalition letter. Moreover, the Round 6.4A forecast represents the most current approved land use forecast for the MWCOG planning area, and therefore provides a reasonable basis for testing the sensitivity of the alternatives to changes in land use.

More generally, there is no widely accepted methodology for quantifying the impacts of a specific transportation project on land development, and there is considerable disagreement within the transportation planning profession on just how significant a role transportation improvements play in influencing development relative to other factors, such as zoning regulations, regional economic growth, or availability of public water and sewer. The approach taken by the ICC Study team – to convene an expert panel of land use stakeholders to reach consensus on the impacts of the transportation project on land development in the corridor – is consistent with current transportation planning practice.

3. The ICC will have little impact on traffic conditions or crashes

The statement from Smart Mobility applies several summary measures to argue that the ICC preferred alternative is not significantly better than the “no build” in reducing traffic congestion or crashes in the corridor. Smart Mobility compares east-west traffic across screen lines on arterials parallel to the ICC, and on the Capital Beltway under current conditions with forecasts under the no build and preferred alternatives. They show that traffic volumes are nearly the same for the preferred and no build alternatives, and both are substantially higher than current traffic levels on the Capital Beltway and parallel arterials. However, a closer examination of the

plots shows that under the preferred alternative, an average of 10,000 vehicles/day are diverted from parallel arterials compared to the no build alternative. Comparison of traffic impacts on the Capital Beltway is largely irrelevant, because the origin-destination flows served by the ICC are not the same as those served by the Capital Beltway, as discussed in the EIS analyses. Comparing future (2030) traffic against current conditions simply shows that traffic volumes throughout the corridor are projected to increase, whether the ICC is built or not.

The discussion of intersection and roadway levels of service actually seems to support the argument that the ICC preferred alternative would improve overall service levels. Smart Mobility points out that the total number of hours that study area intersections would be at or over capacity is reduced by 24 percent under the preferred alternative compared to the no build, but this is 42 percent higher than current traffic volumes. This latter observation merely reinforces the argument that traffic conditions will continue to worsen in the study area, and that the ICC is not intended to improve upon or even maintain today's traffic levels, but rather to help mitigate the impacts of significantly increased traffic volumes.

The accident analysis conducted by Smart Mobility indicates that the difference in total number of crashes between the build and no build alternatives is not significant. However, a more meaningful measure is not total crashes, but rather crash rate per total vehicle miles traveled (VMT). Since total VMT increases under the preferred alternative (an observation that the coalition readily points out in discussing other impacts), the crash rate under the preferred alternative actually decreases relative to the no build. This impact measure is used in the Final EIS.

Smart Mobility suggests that the more appropriate measures to use in comparing the impacts of the ICC preferred alternative against the no build are total vehicle hours of travel (VHT) and vehicle hours of delay (VHD) across the study area. They note that by using these measures, the ICC preferred alternative results in both higher VHT and VHD than the no build. However, as with the accident analysis, this conclusion ignores the fact that total number of vehicle trips and VMT also increase under the ICC preferred alternative. If VHT and/or VHD were measured on a per-trip or per-mile basis (by dividing by total number of trips or total VMT), these measures would be lower under the preferred alternative.

The underlying issue in these alternative interpretations of traffic impacts is whether increased travel volume (i.e., VMT) should be treated as a benefit or a cost. The travel demand analyses conducted for the FEIS and the coalition letter both agree that traffic volumes in the study area will continue to increase over current levels whether or not the ICC is built. They also agree that building the ICC will result in even more vehicle traffic in the study area than under a no build alternative, due to induced travel and induced development (although the magnitude of these effects is certainly an area of disagreement). However, whereas the Final EIS treats reductions in travel times and delays for individual trips within the study area as a benefit (i.e., increased mobility for trip makers within the study area), the analysis conducted by Smart Mobility suggests that these reductions are negated by the additional VMT (from new and longer vehicle trips). From an economic and transportation planning perspective, increased mobility in the form of more trips and greater choice of destinations, should be treated as a benefit. The negative consequences of additional travel (i.e., increased energy use and mobile source pollution) are accounted for using other impact measures.

4. The FEIS should consider a broader set of alternatives

The statement from Smart Mobility reiterates arguments made by the coalition in earlier comments on the Draft EIS that the range of alternatives considered is too narrowly scoped, that it only includes highway options, and that other alternatives involving mixes of improved transit service and land use policies could satisfy the purpose and need with significant improvements in specific performance measures including VMT, VHT, VHD, transit mode share, and mobile source air pollution.

Each of the proposed alternatives was addressed and dismissed in the Final EIS as not meeting the purpose and need for the project. Smart Mobility contends that the scope of the project was unnecessarily (and arbitrarily) limited to only include highway alternatives between specified end points, and did not give transit options a fair evaluation. However, none of the transit alternatives proposed by the coalition addresses the movement of goods or commercial vehicles, which was clearly presented as a project need.

In addition, the performance measures used by Smart Mobility to evaluate the transit alternatives are all directly related to a reduction in total vehicle trips (i.e., any alternative that reduces the number of vehicle trips in the study area will yield improved performance along these selected measures). Again, whether or not these are the appropriate measures of performance is a matter of perspective. For example, moving significant numbers of trip makers out of their vehicles and onto public transit will decrease the number of vehicle trips and the total VHT (where $VHT = \text{number of vehicle trips} \times \text{average trip time}$). However, total person hours of travel (where PHT includes the sum of both vehicle and transit trips multiplied by their respective trip times) would most likely increase. Is VHT or PHT a better measure of personal mobility?

Lastly, as I discussed in my previous review of the proposed alternatives, there are serious flaws in the analyses conducted by Smart Mobility comparing their transit alternatives with the ICC preferred alternative. One major question that is not satisfactorily addressed in Smart Mobility's statement is the feasibility or likelihood of achieving the transit-supportive land use scenario, which is central to proposed alternatives 1 and 4. Smart Mobility dismisses this question by arguing that the adopted land plans used in the FEIS "are an artifact of the political process, just as a new highway is. The point of considering them together is to determine whether better outcomes are possible if land use and transportation planning are better coordinated." (Smart Mobility, pg. 7)

The fallacy of this argument is that, unless there is some demonstrated willingness on the part of local governments to adopt the highly restrictive land use controls required to realize the transit-oriented development scenario, alternatives based on this scenario are not realistic. The purpose of an EIS document is not to evaluate all possible alternatives, but to focus on those that satisfy the stated purpose and need, and that have a realistic expectation of being implemented. The proposed alternatives satisfy neither of these criteria.

Please let me know if you need any additional information from me. I am also attaching, per your request, a copy of my resume and list of publications. Feel free to use them as you see fit.

Attachment



Memorandum

Subject: **INFORMATION**: Review of Comments
on ICC Land Use Analysis

Original Signed By:
From: Mike Culp, Project Development Specialist
Office of Project Development and Environmental
Review (HEPE-30)

Original Signed By:
Fred Ducca, Team Leader
Office of Interstate & Border Planning (HEPI-30)

To: Mr. Frederick Skaer, Director
Office of Project Development and
Environmental Review (HEPE-1)

Date: May 18, 2006

Reply to
Attn. of: HEPE

Per your request, we have reviewed the comments dated March 23, 2006 of the Audubon Society et al, providing on the ICC FEIS/4(f) Evaluation. More specifically we are responding to the comments in Section III. Environmental Consequences, Subsection B. Water Quality, Number 3.) Underestimation of Induced Development Results In a Deficient Analysis of Water Quality and Ecological Impacts.

Regarding the comments under comment (a.) of this section, "The FEIS Fails to Adequately Respond to Modeling that shows that the FEIS's Induced Development Forecasts are Underestimated", and (b.), "The Lead Agencies' Reliance of the ELUP Process Over Well-Accepted Objective Models and Studies Defies Logic", the authors, in general, argue that the land development impacts are underestimated, and that the appropriate method for estimating land development impacts was not used. The common basis for these arguments is the authors' proposal that a different method of analysis for estimating land development changes than the method chosen for the ICC Study should have been used. We reviewed the FEIS and supporting technical documentation, and would offer the following response.

The decision to use the Expert Land Use Panel (ELUP) on the ICC was based on SHA's previous experience with various techniques, which led to the ELUP being proposed as the method of choice for the ICC project. According to meeting minutes, the ELUP method was presented to the Interagency Working Group (IAWG) (June 16, 2003) and the Principals +1 (July 6, 2003) as the proposed method for estimating land development effects as a basis for the Secondary and Cumulative Effects Analysis. To our knowledge, there were no objections by the Principals+1 or the IAWG to using this procedure. We believe this early coordination with the Principals+1 and IAWG are consistent with the FHWA guidance on indirect and cumulative impacts ("Questions and Answers Regarding the Consideration of Indirect and Cumulative Impacts in the NEPA Process"), in that SHA communicated and coordinated with the cooperating agencies regarding their proposed method early in the NEPA process.



SHA has responded to criticisms of the ELUP method by stating that the method was proposed for the ICC Study based on past experience with other methods, and that the ELUP method has been proven to provide reasonable results, and takes into consideration complex land use and jurisdictional issues that are difficult to capture in most quantitative methods. We agree that the ELUP method itself is but one method of many, and if applied in a reasonable fashion, would meet the "hard look" requirements needed to meet NEPA requirements. In addition, several reports and syntheses have been written on this technique, and it is our belief that it is a "state-of-the-practice" method.

We have reviewed the available documentation on how the Expert Land Use Panel (ELUP) was conducted, including the panelist screening procedures and individual panelist reports offered during the application of the panel technique. The ELUP had a broad cross-section of members representing the public sector, private sector and academia. The panel did not achieve consensus, but did appear to converge toward a reasonable range of possible outcomes, consistent with the results of a typical Delphi-type technique applied for similar purposes. The records indicate that some panel members felt that an analytic process would have helped the panel draw more informed conclusions, yet there is no indication that participants felt the conclusions would have been significantly different. The panel appeared to be conducted in a reasonable, unbiased manner, without preordained conclusions being thrust upon it. Overall, the ELUP process seems to have been conducted in fair and reasonable manner, consistent with the state-of-the-practice in conducting expert land use panels for estimating potential effects of transportation projects.



U.S. Department
of Transportation
Federal Highway
Administration

Memorandum

Subject: **INFORMATION:** Review of March 23rd
Letter from Environmental Coalition

Date: May 24, 2006

From: Patricia A. Cazenias
Highway Engineer

Reply to: HEPN-30

To: Fred Skaer, Director
Office of Project Development
and Environmental Review

I have reviewed those sections of the March 23rd comment letter from the coalition of environmental groups that deals with water quality and offer the following comments on the issues raised in the letter on the Final Environmental Impact Statement (FEIS) on the Intercounty Connector (ICC).

Water Quality

The water quality analysis estimated the potential impacts from the ICC's impervious surfaces to compared annual pollutant loads for a variety of non-point source pollutants for pre and post ICC land use conditions. This analysis focused on the corridor of land anticipated to be ICC right-of-way (rather than a narrower limits of disturbance), and summarized the pollutant loads for each watershed in both corridors. Post-construction conditions were analyzed assuming all runoff would be treated from the ICC right-of-way with stormwater Best Management Practices (BMPs).

The Corridor 2 alignment is in close proximity to the Rocky Gorge Reservoir, which is a drinking water reservoir. The reservoir provides a vital drinking water source to between 550,000 to 600,000 people. The pollutant load model indicates that the right-of-way corridor associated with either alignment would not experience significant changes in water quality when compared to existing land uses. But with the potential for secondary development in Corridor 2, further analysis from nonpoint sources in the watershed was done from a source water protection standpoint. The results showed that the selection of Corridor 2, may in time increase the need for additional water treatment processes to keep and maintain the drinking water supply and regional emergency supply of potable water. The potential for this alignment to impact a drinking water reservoir warrants the additional evaluations of secondary impacts, land use and Comparative Water Resources Hazard Assessments in Corridor 2.



The Simple Method is one of the models referenced in several of EPA's guidance documents, including the EPA's "Handbook for Developing Watershed Plans to Restore and Protect Our Waters", Chapter 8: Estimate Pollutant Loads, October 2005 and the "Compendium of Tools for Watershed Assessment and TMDL Development, USEPA, 1997. Although approaches used in estimating pollutant loads have different features, there are a wide range of models (specifically there are over 35 models listed in EPA guidance) that can provide loads by sources, help predict conditions, and evaluate BMPs. There are several models that can be used to evaluate projects and watersheds, but among the various models, they represent a range of complexity, areas of emphasis and types of pollutants. But all models are an approach for estimating pollutant loads, providing source load estimates and evaluating alternatives. These models can be highly sophisticated or more generalized, like the simple method based on relationships that estimate the amount of runoff based on precipitation. These cause and effect relationships models are used to forecast or estimate future conditions the might occur. Models vary in accuracy and you need to rely on peer review of journal articles written about the use of a model to establish credibility. All models reviewed in the EPA guidance have been validated, at least to some extent and this review includes the GLIF model referenced in coalition's letter, but it also included the Simple Method. A detailed description of water quality models of all types can be found in these EPA publications.

In this FEIS analysis, the pollutant loading was evaluated for the corridor of land anticipated to be the ICC right-of-way, and a pollutant load analysis was not completed for the entire watershed. The analysis and prediction of pollutant loads were evaluated based on the impacts associated with the highway construction footprint. This "Simple Method" provides reasonable estimates of changes in pollutants resulting from urban development activities. This method estimated pollutant loads generated during storm events, as that is the time period in which stormwater runoff will be draining from the highway system. The model may be simple, hence it's name, because the technique requires a modest amount of information on drainage area, impervious cover, stormwater runoff pollutant concentrations and annual precipitation. A simplified technique can be a more effective model if it addresses the necessary issues and provides a useful tool in decisionmaking over a more complex model.

The FEIS states that in temperature sensitive watersheds such as Paint Branch and Upper Rock Creek, stormwater management facilities would be designed to infiltrate a portion of the heated runoff and allow for treatment by cooler groundwater. The water temperature in some of these subwatersheds is at the upper limit of what is considered sustainable for the resident brown trout population. Addition of impervious areas within these subwatersheds has the potential to raise water temperatures to a level not suitable for the trout population. This is any additional **untreated** impervious surfaces. The upper watershed already experiences temperatures consistently above 68 degrees F and additional **untreated** impervious areas may add to the already existing problem. The planned stormwater management BMPs associated with the construction of the ICC may sustain or even improve an existing situation related to temperature of the water in these areas. The study done in 2004 concluded that despite warm water inflows in the headwaters of the tributaries the baseflow contributions to these tributaries and the Good Hope mainstem were able to mitigate these effects and maintain an average temperature below

the Use III standard in 2004. This data presents one season of existing information; over time and with various BMPs, we can work to improve the situation as long as all players in the watershed are willing to work towards mitigating the existing threats and providing management measures for future threats beyond the ICC. The FEIS mitigation package makes a commitment to ensure the project is designed and operated in a fashion that serves and protects the environmental health of the project corridor. The water quality mitigation package covers the water quality impacts of the project itself and also provides measures to improve and help to solve water quality issues that already exist in the planned ICC corridors.

**Attachment G -
Final Section 4(f) Addendum**

ATTACHMENT G

Addendum to Section 4(f) Evaluation for the ICC: Updated Evaluation of Impacts in Upper Paint Branch Stream Valley Park

I. Introduction

A Section 4(f) Evaluation was prepared for the Intercounty Connector (ICC) project to assess whether there were feasible and prudent alternatives to the use of protected parks and historic sites and whether all possible planning to minimize harm had occurred, as required by Section 4(f) of the Department of Transportation Act of 1966 (49 U.S.C. § 303(c)). This Addendum to the Section 4(f) Evaluation for ICC was prepared in response to comments received on the Final Environmental Impact Statement/Section 4(f) Evaluation (FEIS) for this project. The purposes of this Addendum are to modify the description of the Designated Transportation Area for the ICC within the Upper Paint Branch Stream Valley Park and to re-assess the conclusions stated in the FEIS based on the updated information.

II. Section 4(f) Evaluation in FEIS

“Designated Transportation Area” vs. “ICC Master Plan Corridor”

All of the parklands used by ICC Corridor 1 are owned by the Maryland-National Capital Park and Planning Commission (M-NCPPC). Established in 1927, the M-NCPPC is a bi-county local agency responsible for managing the local park system and for land use planning. The M-NCPPC carries out its land use planning function by adopting a General Plan, which is implemented through local Master Plans. The Master Plans identify the locations of existing and planned parklands and also identify corridors reserved for future transportation use. Since the 1950s, the M-NCPPC’s plans have reflected a system of north-south stream valley parks bisected by a major east-west roadway, which was originally part of a planned Outer Circumferential Freeway and is now known as the ICC. As will be discussed further below, the planned route for the ICC has been adjusted on several occasions by the M-NCPPC.

The route currently shown on the M-NCPPC’s plans for the ICC is referred to in the FEIS as the “ICC Master Plan Corridor.” Portions of this route were originally acquired by the M-NCPPC as parkland and later re-designated as a reserved transportation corridor by the M-NCPPC. The M-NCPPC considers the entire ICC Master Plan Corridor to be a future transportation corridor, regardless of the purpose for which the land was originally acquired. In other words, the relevant factor for the M-NCPPC is the current designation in the applicable plan, not the designation of that land at the time it was originally acquired.

For purposes of Section 4(f), FHWA utilizes a different definition of “parkland” than M-NCPPC: any land that was originally acquired as parkland is considered parkland for purposes of Section 4(f), even if it is later designated as a transportation route by the park owner, such as M-NCPPC. Under FHWA’s interpretation, the reserved corridor for the ICC (i.e., the area that is *not* considered parkland under Section 4(f)) includes only those lands that were designated *at the time of acquisition* as future right-of-way for the ICC.

To distinguish between the M-NCPPC’s and FHWA’s differing interpretations of the reserved corridor for the ICC, two different terms were used in the FEIS. The term “ICC Master Plan Corridor” refers to land that is *currently planned by the M-NCPPC for completion of the ICC*,

regardless of the purpose for which that land was originally acquired. The term “Designated Transportation Area” refers to land that was *initially acquired by M-NCPPC specifically for transportation right-of-way and not for parkland*. Many sections of the ICC Master Plan Corridor are not included in the Designated Transportation Area, because they were initially acquired by M-NCPPC for parkland before being re-assigned for future transportation right-of-way. The FEIS on page V-6 explained the difference as follows:

The portions of the ICC Master Plan Corridor in the vicinity of these parks that were acquired specifically for transportation use are referred to in this document as “***Designated Transportation Areas***” and shown on ***Figure V-2***. Where applicable, the ICC Master Plan Corridor and the Designated Transportation Areas are defined on figures presented in this evaluation. The Designated Transportation Areas were initially acquired as transportation right-of-way, and thus are not, and have never been, part of the adjacent parks. Therefore, Section 4(f) does not apply to the use of land within the Designated Transportation Areas. In addition, because these areas were designated for transportation use prior to or at the same time as the adjacent parks were established, a transportation project built within a Designated Transportation Area would not result in a constructive use of the adjacent parks. There would be no constructive use because the parks were planned and established with the understanding and intent that they would be divided by an east-west highway.

The FEIS also noted FHWA’s interpretation that a shift in the ICC Master Plan Corridor does not shift the Designated Transportation Area, and, as a result, land that is considered transportation right-of-way by M-NCPPC may be considered parkland by FHWA for purposes of Section 4(f):

Since the master plans for the counties have changed over the years, some lands that were originally acquired by M-NCPPC for park purposes have now been designated by M-NCPPC and Montgomery County as part of the ICC Master Plan Corridor. Those parks that were designated without a reservation of highway corridor in the first instance, but were subsequently re-designated with a highway corridor in the Master Plan, are considered by M-NCPPC to be transportation right-of-way (not parkland). However, for the purposes of this Section 4(f) analysis, those areas are considered parkland by FHWA. These areas include Rock Creek Regional Park, a portion of North Branch Stream Valley Park, Layhill Local Park, and Northwest Branch Recreational Park.

In sum, the Designated Transportation Area – not the ICC Master Plan Corridor – defined the status of right-of-way for purposes of the Section 4(f) Evaluation. For a discussion of this subject, see the FEIS, p. V-5 to V-6.

Location of Designated Transportation Area in Upper Paint Branch Stream Valley Park

The FEIS stated that there was a continuous Designated Transportation Area extending all the way across Upper Paint Branch Stream Valley Park. (FEIS, p. V-31). The location of this Designated Transportation Area, as described in the FEIS, was shown in Figure V-18 of the FEIS.

Section 4(f) Impact on Upper Paint Branch Stream Valley Park

The FEIS stated that Corridor 1 would follow the continuous Designated Transportation Area through Upper Paint Branch Stream Valley Park, but would nonetheless take 6.2 acres of Section 4(f) land from that park. The 6.2 acres resulted from portions of the project extending beyond the Designated Transportation Area at several locations, for purposes such as the construction of erosion and sedimentation control facilities to minimize construction impacts. The specific uses of parkland within the Upper Paint Branch were described on pp. V-44 to V-45 of the FEIS and shown in Figure V-31 of the FEIS. This description discussed impacts within the park itself as well as impacts within the Designated Transportation Area; it also acknowledged the impacts that would result from the presence of a new highway separating portions of the park located north and south of the highway. The change in the Section 4(f) status of certain parcels does not result in any additional impacts that were not disclosed on pp. V-44 to V-45 of the FEIS.¹

Overall Conclusions

The overall comparison of Corridor 1 and Corridor 2 in the FEIS was performed with regard to two specific versions of Corridor 2. *Corridor 2AX* dipped to the south in the Burtonsville Area, coming close to the Free Methodist Church Camp but avoiding a constructive use of that Section 4(f) resource. *Corridor 2DB* followed a more northerly route in the Burtonsville area, impacting the Patuxent Watershed Conservation Park and the T. Howard Duckett Watershed Property.

The FEIS found that Corridor 2AX and 2DB are “substantially equal” to Corridor 1 in terms of harm to Section 4(f) resources. The finding of “substantially equal harm” took into account the significant disparity in acreage between Corridor 1 and both Corridors 2AX and 2DB. The Section 4(f) Evaluation (FEIS, p. V-116) contained the following summary of the acreage disparity:

The Section 4(f) use of the Corridor 1 Alternative would exceed the Section 4(f) use of the Corridor 2AX Alternative by 50.6 acres (82.9 acres vs. 32.3 acres) and the Section 4(f) use of the Corridor 2DB Alternative by 35.1 acres (82.9 acres vs. 47.8 acres). However, the majority of this disparity in acreage (32.5 acres) results from the decision to shift the alignment of Corridor 1 outside the reserved corridor in two places. These shifts were incorporated into Corridor 1 with the concurrence of resource agencies and M-NCPPC, in order to minimize harm to parklands and other natural resources in Northwest Branch Stream Valley Park - Unit 5 and Upper Paint Branch Stream Valley Park. If the alignment had

¹ Impacts to the Upper Paint Branch Stream Valley Park were assessed in the following locations in the FEIS: Communities (p. IV-54, 55, 56, 57; Appendix A, Plates 25, 26, 27, 28, and Appendix G, Sheet 8); Community Facilities (p. IV-83; Table IV-44); Visual Effects (p. IV-88); Hydric Soils (p. IV-136; Table IV-49); Floodplains (p. IV-146; Appendix A, Plates 26 and 27); Farmland (p. IV-150; Table IV-53); Surface Water (p. IV-158; Table IV-54, Appendix A, Plates 23-25); Water Quality (p. IV-173, 178); Aquatic Biota (p. IV-199; Table IV-63, 64); Waters of the U.S. (p. IV-208, 216, 231, 240; Table IV-65, 68, 70; Appendix A, Plates 25-27); Forest Interior Dwelling Species (FIDS) (p. IV-258); Champion Trees (p. IV-261, 266); Terrestrial Wildlife (p. IV-275, 280 286); Rare, Threatened, and Endangered Species (p. IV-290; Table IV-79); Unique and Sensitive Areas (p. IV-299); Air Quality (p. IV-317; Table IV-88); Secondary and Cumulative Effects (p. IV-410, IV-419).

remained within the reserved corridor, as permitted under Section 4(f), the disparity in acreage would actually be much smaller: the acreage used by Corridor 1 would exceed Corridor 2AX by 18.1 acres (50.4 acres vs. 32.3 acres) and would exceed Corridor 2DB by only 2.6 acres (50.4 acres vs. 47.8 acres).

In considering this acreage disparity, the Section 4(f) Evaluation noted that (1) “[t]his acreage disparity is relatively modest in the context of the overall size of the impacted parks and in the context of the County’s park system,” and (2) “the impacts to parkland associated with all of the Build Alternatives would be carefully and thoroughly mitigated to ensure the maximum reduction in harm to those resources.” (FEIS, p. V-116) In addition, the Section 4(f) Evaluation noted that:

As a result of all of these efforts, the harm to parkland under each alternative would be neutralized by the proposed mitigation and, in some cases, would even improve upon the existing conditions of the resources. In sum, after the ICC mitigation, the County’s park system as a whole would be larger and provide additional recreational opportunities and conservation of natural resources.

Thus, when both quantitative and qualitative factors, as well as mitigation, are all taken into account, the alternatives under consideration – namely, Corridor 1, Corridor 2AX, and Corridor 2DB – are substantially equal to one another in terms of their relative harm to Section 4(f) parkland.

In addition to the finding of “substantially equal harm.” the Section 4(f) Evaluation also found that Corridors 2AX and 2DB are not “prudent” alternatives for avoiding the Section 4(f) impacts along Corridor 1. This finding provided an alternative basis for concluding that Corridor 1 can be approved under Section 4(f). See FEIS, p. V-120.

III. Additional Research on Upper Paint Branch Stream Valley Park

Several of the comments on the FEIS raised questions about the boundaries of the Designated Transportation Area within Upper Paint Branch Stream Valley Park. These comments noted that, in a previous study for this project (the DEIS issued in 1997), a portion of the corridor through that park had been shown as parkland, not as reserved right-of-way for the ICC.²

Additional research was conducted since the FEIS. The land ownership and planning records do not provide a uniformly clear indication of the purpose for which each parcel within and adjacent to Upper Paint Branch Stream Valley Park was originally acquired by M-NCPPC. In several instances dating from the 1960s and 1970s, it was necessary to consider the deed, the subdivision plat and the local master plans in effect at the time of transfer and subsequently in order to review the classification of each property within the Designated Transportation Area. The findings of this research are summarized below and in Figures 1 and 2 (attached).

² Similar comments were received on the DEIS. However, the agency’s investigation at that time did not result in modifying the Designated Transportation Area in the FEIS. See comment and response # 1677 in FEIS Appendix R-8, p. 144.

- The original route for the ICC (then known as the Outer Circumferential Freeway) was established by the M-NCPPC in the 1950s. This route is shown on Figure 1 as the “Pre-1981 Alignment.”
- In the 1960s and 1970s, the M-NCPPC acquired three parcels located just north of the then-existing route (the Pre-1981 Alignment) for the ICC. See Figure 1.
 - For Parcel 2033, acquired in 1966, both the deed and the plat are silent regarding the purpose for which the land was acquired.
 - For Parcel 2034, acquired in 1962, the deed is silent regarding the purpose for which the land was acquired. Based on coordination with M-NCPPC staff, it appears that a plat was never issued for this parcel.
 - For Parcel 2035, acquired in 1978, the deed again is silent, but the plat refers to a “reservation of land for public use as deemed necessary for park purposes.”
- Thus, there is nothing in any of the *deeds* to indicate that these parcels were acquired for a future transportation use, for a park, or for any other specific purpose. However, the *plat* for Parcel 2035 does indicate that the acquisition was made for park purposes.
- M-NCPPC has been contacted regarding the existence of any local Master Plans that might indicate the intended use of Parcels 2033 and 2034 at the time of their acquisition. The M-NCPPC staff has reported that there are no local Master Plans for that area from the period of the acquisitions, and also reported that they have not identified any other mapping from that period that conclusively identifies the area as future parkland or as non-parkland.³
- In sum, the plat for Parcel 2035 indicates that it was acquired as parkland; the deeds and plats do not clearly indicate the purpose for which Parcels 2033 and 2034 were acquired. Nonetheless, out of an abundance of caution, FHWA will assume that all three parcels (2033, 2034, and 2035) were acquired as parkland.
- In the early 1970s, SHA acquired two parcels of land for the ICC along the Pre-1981 Alignment in the vicinity of what is now Upper Paint Branch Stream Valley Park. These parcels are labeled as Parcels 23 and 24 on Figure 1. Parcel 23 was acquired in 1974, and Parcel 24 in 1971.
- In 1981, the M-NCPPC shifted the location of the ICC alignment. The alignment adopted by M-NCPPC in 1981 and reserved on the Master Plans ever since is shown on

³ Communications between SHA consultants and M-NCPPC staff regarding this issue have been documented in the project file.

Figure 1 as the “Post 1981 Alignment.” This alignment crossed Parcels 2033, 2034, and 2035 – the parcels that had previously been acquired by M-NCPPC for parkland.

- According to the 1981 Master Plan for the Eastern Montgomery County Planning Area, the 1981 alignment shift was made to reduce impacts to the Paint Branch stream.⁴ Current mapping confirms that this alignment shift greatly reduced longitudinal stream impacts, impacts on brown trout spawning habitat, and impacts on wetlands and floodplains. See Figure 2, “Environmental Issues Associated with 1981 ICC Master Plan Alignment.”
- Following the 1981 alignment shift, M-NCPPC acquired most of the land that currently comprises Upper Paint Branch Stream Valley Park. All of M-NCPPC’s subsequent acquisitions specifically reserved land for the ICC. The land that was reserved for the ICC at the time of these acquisitions is shown as part of the Designated Transportation Area on Figure 1.
- The ICC Master Plan Corridor as shown on the M-NCPPC’s current plans continues to follow the Post-1981 Alignment through the Upper Paint Branch Stream Valley Park. As such, the ICC Master Plan Corridor directly crosses Parcels 2033, 2034, and 2035 – i.e., the parcels acquired by M-NCPPC in 1966, 1962, and 1978. Altogether, the ICC Master Plan Corridor includes 7.6 acres of former parkland within these three parcels.
- The proposed alignment for Corridor 1, as defined in the FEIS, would not require the use of the full width of the ICC Master Plan Corridor in this area because its footprint was minimized by bridging in order to reduce harm to aquatic resources within the Designated Transportation Area.
- If Parcels 2033, 2034, and 2035 are considered parkland, the total Section 4(f) use for Corridor 1 in Upper Paint Branch Park would increase by 4.9 acres. Together with the 6.2 acres identified in the FEIS, the total Section 4(f) use in Upper Paint Branch Park would be 11.1 acres.
- The use of an “additional” 4.9 acres is a change in characterization only: there is no impact to any environmental resource within the 4.9-acre area that was not already accounted for in the FEIS.
- Some of the land acquired by SHA for the ICC along the Pre-1981 Alignment is no longer needed for the project. Specifically, all of Parcel 23 and a portion of Parcel 24 are owned by SHA for transportation purposes, but will not be needed for the ICC. These lands total approximately 7.6 acres and are adjacent to the Upper Paint Branch Stream

⁴ Maryland-National Capital Park and Planning Commission, “Approved & Adopted Master Plan, Eastern Montgomery County Planning Area: Cloverly, Fairland, White Oak (Nov. 18, 1981, printed Dec. 1982), p. 169. Excerpts from this master plan are attached to this Addendum; the entire master plan document is included in the project file.

Valley Park; they are partially forested and include wetlands, floodplains, and stream resources. SHA has committed to FHWA that it will offer this land to M-NCPPC in addition to the land that is already included in the mitigation package. In its letter of May 15, 2006 commenting on the draft of this Addendum, the M-NCPPC's Acting Director of Planning stated that "I also concur with your proposal to transfer the 7.6 acres of State Highway Administration property along the pre-1981 ICC alignment to us as parkland. This transfer is an implementation of the Fairland Master Plan."

IV. Updated Section 4(f) Conclusions

Based on the updated information regarding the Upper Paint Branch Stream Valley Park, FHWA has re-assessed the conclusions stated in the Section 4(f) Evaluation in the FEIS. The results of this reassessment are provided below.

Location of Designated Transportation Area in Upper Paint Branch Stream Valley Park

The Upper Paint Branch Stream Valley Park was acquired in stages by the M-NCPPC. Three parcels on the eastern side of the park (2033, 2034, 2035) were acquired from 1962 to 1978, at a time when the ICC alignment was located slightly farther south; those parcels *do not* include a Designated Transportation Area for the ICC, and the available records indicate that they were most likely acquired as parkland. Therefore, these three parcels will be considered parkland for purposes of Section 4(f). The remaining parcels in Upper Paint Branch Stream Valley Park were all acquired after 1981, when the ICC was shifted by M-NCPPC to its current location; these parcels *do* include a Designated Transportation Area for the ICC.

Therefore, FHWA has determined that the Designated Transportation Area extends across most of the park, but stops short of the park's eastern border. The revised Designated Transportation Area for Upper Paint Branch Stream Valley Park is shown on Figure 1. This figure supersedes the depiction of the Designated Transportation Area in Figure V-18 of the FEIS.

Section 4(f) Use of the Upper Paint Branch Stream Valley Park

As stated in the FEIS, Corridor 1 would extend beyond the Designated Transportation Area in several places in Upper Paint Branch Stream Valley Park, resulting in the use of 6.2 acres of Section 4(f) land. In addition to that acreage, Corridor 1 also would require the use of approximately 4.9 acres of Section 4(f) land from the three parcels of parkland at the eastern edge of the park (Parcels 2033, 2034, and 2035). These parcels are located within the existing ICC Master Plan Corridor, and are considered to be a future transportation corridor by the park owner (the M-NCPPC). However, because these parcels appear to have been acquired originally for parkland, they are being treated as Section 4(f) land for purposes of this analysis. Therefore, the total Section 4(f) use by Corridor 1 within the Upper Paint Branch Stream Valley Park would be 11.1 acres (6.2 acres identified in the FEIS, plus 4.9 acres).

The 4.9 acres of additional parkland use exists solely because of the M-NCPPC's decision to adopt an alignment shift that minimized harm to the natural resources in the park. Current mapping confirms that this alignment shift does, in fact, reduce impacts to natural resources in the park. See Figure 2.

This additional impact (the 4.9 acres) does not result from any change in the location or impacts of the project since the publication of the FEIS. The only thing that has changed since the FEIS is that additional acreage has been recognized as possessing Section 4(f) status. This change in status has required a recalculation of the Section 4(f) acreage totals. The actual impacts of the project on the environment are unchanged since the FEIS.

Minimization of Harm for Section 4(f) Use in Upper Paint Branch Stream Valley Park

Extensive measures to minimize harm to the Upper Paint Branch Stream Valley Park have been incorporated into Corridor 1. The most significant minimization-of-harm measure was the initial decision by M-NCPPC in 1981 to shift the ICC alignment to avoid longitudinal impacts to the Good Hope tributary of Paint Branch. This shift greatly reduced impacts to the stream and associated habitat for the brown trout. For a comparison of the impacts of the pre-1981 and post-1981 alignments, see Figure 2.

As part of this project, impacts to the park have been further minimized by incorporating numerous design features that will help to preserve and improve water quality and maintain connectivity between portions of the park located to the north and south of the ICC alignment. For example, the project includes long bridges over the Good Hope tributary, the Gum Springs tributary, and the mainstem of Paint Branch, in order to minimize impacts on those streams. These and other minimization-of-harm measures are summarized on p. V-45 of the FEIS.

Under Section 4(f), the obligation to minimize harm is triggered when there is *any* use of that resource, regardless of the amount of acreage used. Therefore, FHWA already had an obligation to minimize harm to this park, because of the 6.2 acres of impact that was acknowledged in the FEIS. This obligation was satisfied by incorporating the measures listed on p. V-45 of the FEIS, which comprehensively address impacts on the park. Because harm to the park has already been minimized, the existence of an “additional” 4.9 acres of Section 4(f) does not require the incorporation of additional measures to minimize harm to this park.

As an indication that minimization-of-harm measures are already incorporated into Corridor 1, it is useful to consider the footprint of the project in the three parcels that were believed (at the time of the FEIS) to be part of the Designated Transportation Area. The ICC Master Plan includes approximately 7.6 acres through those parcels. By contrast, Corridor 1 would use only about 4.9 acres in the same area due to the use of bridging to minimize impacts. This reduction shows that minimization-of-harm measures were incorporated into Corridor 1 even in the area that was believed to fall within the Designated Transportation Area. Since those measures are already incorporated, the obligation to minimize harm has been satisfied.

Mitigation for Section 4(f) Use in the Upper Paint Branch Stream Valley Park

In addition to minimization-of-harm measures, the project incorporated an extensive package of mitigation for impacts to Section 4(f) parkland. As described in the FEIS, the package included

719.8 acres of replacement parkland, which was intended to mitigate for 82.9 acres of Section 4(f) land that would be used by Corridor 1.⁵ This mitigation package resulted in a ratio of nearly 8:1 (mitigation to impacts). With such an amount of mitigation, the identification of an additional 4.9 acres of 4(f) use does not give rise to any duty to provide additional mitigation. If anything, the overwhelming mitigation package already substantially exceeds Section 4(f)'s requirement that the project must include all possible planning to minimize harm.

While no additional acreage is needed to mitigate for the 4.9 acres, SHA has committed to FHWA that the unneeded portions of the SHA-owned parcels along the Pre-1981 Alignment will be offered to M-NCPPC in addition to the mitigation package that has already been adopted for the project. This transfer would add approximately 7.6 acres to the Upper Paint Branch Stream Valley Park. As noted above, the M-NCPPC stated in its May 15, 2006 comment letter that it will accept the transfer of this parcel.

Overall Comparison of Harm

The FEIS compared the overall Section 4(f) harm caused by Corridor 1 to the overall Section 4(f) harm caused by Corridor 2AX and Corridor 2DB. See FEIS, pp. V-116 to V-120 and page 3 of this Addendum. The updated information regarding Upper Paint Branch Stream Valley Park does not alter the overall comparison of harm, for the reasons explained below.

Total Acreage of Section 4(f) Impacts

The FEIS compared Corridor 1 to Corridors 2AX and 2DB in terms of their total acreage of Section 4(f) impact. The FEIS found a disparity of 50.6 acres between Corridor 1 and Corridor 2AX (82.9 vs. 32.3 acres), and found a disparity of 35.1 acres between Corridor 1 and Corridor 2DB (82.9 vs. 47.8 acres). See FEIS, pp. V-116.

With the additional 4.9 acres in Upper Paint Branch Stream Valley Park, the total acreage for Corridor 1 will increase – thus increasing the disparity between Corridor 1 and Corridor 2 by the same amount.

The FEIS did not rest on a simple comparison of acres used by each alternative corridor, but went on to undertake a qualitative comparison as well. The qualitative comparison noted that most of the disparity between the Corridors resulted from efforts to minimize harm to the primary resources of the impacted parks. (FEIS, p. V-116) The FEIS concluded that park acreage used in order to minimize harm to a park should weigh differently in the agency's assessment of harm than park acreage converted to asphalt.

⁵ The acreages for parkland impacts and parkland mitigation have been updated in the Record of Decision (ROD), which is issued concurrently with this Addendum to the Section 4(f) Evaluation. The final acreage numbers for Corridor 1, as stated in the ROD are as follows: 88.1 acres of parkland would be used by Corridor 1; the mitigation package would include a total of 776.6 acres of new parkland, which would include a commitment to transfer 21.3 acres of unused Designated Transportation Area in Northwest Branch Stream Valley Park and 7.6 acres of unused Designated Transportation Area in Upper Paint Branch Stream Valley Park. These updated numbers result in an impact-to-mitigation ratio of approximately 8.8 to 1.

Accordingly, the FEIS also compared Corridor 1 to Corridors 2AX and 2DB in terms of their net acreage impact, by subtracting the acres that resulted from shifting the route outside the reserved corridor in order to minimize impacts. The FEIS found that 32.5 acres of the total Section 4(f) impact caused by Corridor 1 resulted from shifting the alignment outside the reserved corridor in order to minimize harm to natural resources. The majority of this acreage resulted from a shift known as the “S curve” within the Northwest Branch Stream Valley Park. The FEIS noted that, if these changes had not been incorporated, the Section 4(f) acreage impacts of Corridor 1 would have been reduced to 50.4 acres, resulting in a much smaller acreage disparity between Corridor 1 and Corridor 2AX (18.1 acres) and Corridor 2DB (2.6 acres) See FEIS, pp. V-116.

Like the “S curve” in the Northwest Branch Stream Valley Park, the 1981 alignment shift in the Upper Paint Branch Stream Valley Park also minimized harm to natural resources in the park. In this case, the alignment shift was made by the M-NCPPC, rather than being made by FHWA and SHA as part of the NEPA process. Nonetheless, the effect of the 1981 alignment shift was similar to the more recent shift in Northwest Branch Stream Valley Park: the route was shifted outside a reserved transportation corridor, into parkland, which increased the Section 4(f) acreage impacts, but reduced harm to the natural resources that the park is intended to protect. Stated differently, the additional 4.9 acres of Section 4(f) use in Upper Paint Branch Stream Valley Park resulted from an alignment shift that minimized harm to the park. Based on this analysis, it would be appropriate to discount the 4.9 acres of additional acreage when comparing Corridor 1 to Corridor 2AX and 2DB – in the same way that the 32.5 acres of impacts was discounted in the FEIS.

Assessment of Disparity in Acreage Impacts

The FEIS acknowledged that, regardless of how acreages are calculated, Corridor 1 has greater quantitative impacts on Section 4(f) resources than Corridor 2AX and Corridor 2DB. If the comparison of harm was based solely on acreages, Corridor 2AX would have to be considered the alternative that caused the least harm, followed by Corridor 2DB. However, as noted in the FEIS, the comparison of harm under Section 4(f) is *not* based solely on the acreage of impacts. It also takes into account qualitative factors. The FEIS pointed out that “This acreage disparity is relatively modest in the context of the overall size of the impacted parks and in the context of the County’s park system.”⁶ (FEIS, p. V-116). The FEIS also pointed out that “the impacts to parkland associated with all of the Build Alternatives would be carefully and thoroughly mitigated to ensure the maximum reduction in harm to those resources.” (FEIS, p. V-117). The FEIS concluded that “[a]s a result of all of these efforts, the harm to parkland under each alternative would be neutralized by the proposed mitigation and, in some cases, would even improve upon the existing conditions of the resources. In sum, after the ICC mitigation, the County’s park system as a whole would be larger and provide additional recreational opportunities and conservation of natural resources.” (FEIS, p. V-117)

⁶ The FEIS also noted in its comparison of harm that “Corridor 2AX would impact approximately 17.1 acres of planned parkland and Corridor 2DB would impact approximately 14.3 acres of planned parkland. Corridor 1 would avoid these sites.” See FEIS, p. V-116, footnote 9.

These conclusions are not altered by the addition of 4.9 acres of parkland impact to the total for Corridor 1. The Section 4(f) impacts of Corridor 1 have been, and continue to be, greater *in acreage terms* than the Section 4(f) impacts of any version of Corridor 2. But the Section 4(f) impacts of Corridor 1 are consistent with the M-NCPPC's vision for its park system, which has always called for a system of north-south parks bisected by a major east-west, limited access highway; the Section 4(f) impacts are small when compared to the overall size of the M-NCPPC's park system; Corridor 2 would have significant impacts to planned parkland, which is not included in the acreage comparison; and, most important, the parkland impacts of both Corridors are substantially neutralized by a mitigation package that provides replacement parkland at a ratio of more than 8:1.

In light of all of these factors, as well as the complete record, FHWA re-affirms its finding in the FEIS that Corridor 1, Corridor 2AX, and Corridor 2DB all cause substantially equal harm to Section 4(f) resources.⁷ See FEIS, p. V-118.

V. Overall Conclusion

Based on the foregoing, FHWA reaffirms its conclusion in the FEIS (p. V-120) that “there is no feasible and prudent alternative to the use of land from Mill Creek Stream Valley Park, Rock Creek Regional Park, North Branch Stream Valley Park, Layhill Local Park, Northwest Branch Recreational Park, Northwest Branch Stream Valley Park - Unit 5, and Upper Paint Branch Stream Valley Park, and the proposed action (the Corridor 1 Alternative) includes all possible planning to minimize harm to these resources resulting from such use.”

VI. Process

FHWA regulations provide for circulation of a “separate Section 4(f) evaluation” when FHWA “determines, after processing the CE, FONSI, draft EIS, or final EIS that section 4(f) applies to a property.” See 23 C.F.R. § 771.135(m). This regulation would require circulation of a separate Section 4(f) if an entirely new Section 4(f) resource were discovered after the FEIS was issued, but it does not clearly require a separate Section 4(f) evaluation simply because of a change in the apparent boundary of a previously evaluated Section 4(f) property.

Nonetheless, in light of the complexity of the Section 4(f) issues in this project, the FHWA decided to follow its procedures for circulating this Addendum as a separate Section 4(f) evaluation. A draft of this Addendum was provided to the U.S. Department of Interior (DOI) and M-NCPPC for comment. Comments on the draft Addendum were provided by M-NCPPC on May 15, 2006, and comments were provided by DOI on May 16, 2006. Both agencies concurred in their letters that the issues covered in the Addendum do not change the overall

⁷ In addition to finding that Corridor 1, 2AX, and 2DB all cause substantially equal harm to Section 4(f) resources, the FEIS also found that Corridor 2AX and 2DB should be rejected as imprudent. The finding of imprudence for Corridors 2AX and 2DB remains valid and is not affected by the finding that Corridor 1 will have an additional 4.9 acres of impact within Upper Paint Branch Stream Valley Park.

conclusion that selection of Corridor 1 is consistent with Section 4(f). Copies of the correspondence are attached to this Section 4(f) Addendum.

Finally, FHWA regulations provide that “the decision to prepare and circulate a section 4(f) evaluation will not necessarily require the preparation of a new or supplemental environmental document.” See 23 C.F.R. § 771.135(n). An FEIS must be supplemented when the FHWA determines that “changes to the proposed action would result in significant environmental impacts that were not evaluated in the EIS” or “new information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in the EIS.” 23 C.F.R. § 771.130(a)(1)-(2). The revised Section 4(f) characterization presented in this Addendum for 4.9 acres of Upper Paint Branch Stream Valley Park does not warrant preparation of a supplemental EIS because there is no change in the proposed highway project and the revised characterization does not result in any additional impact to any environmental resource. All of the impacts to the M-NCPPC land within the additional 4.9 acre area were already evaluated in the FEIS and there is no change as a result of any information in this Addendum.

Attachments

Attachment 1: Figures

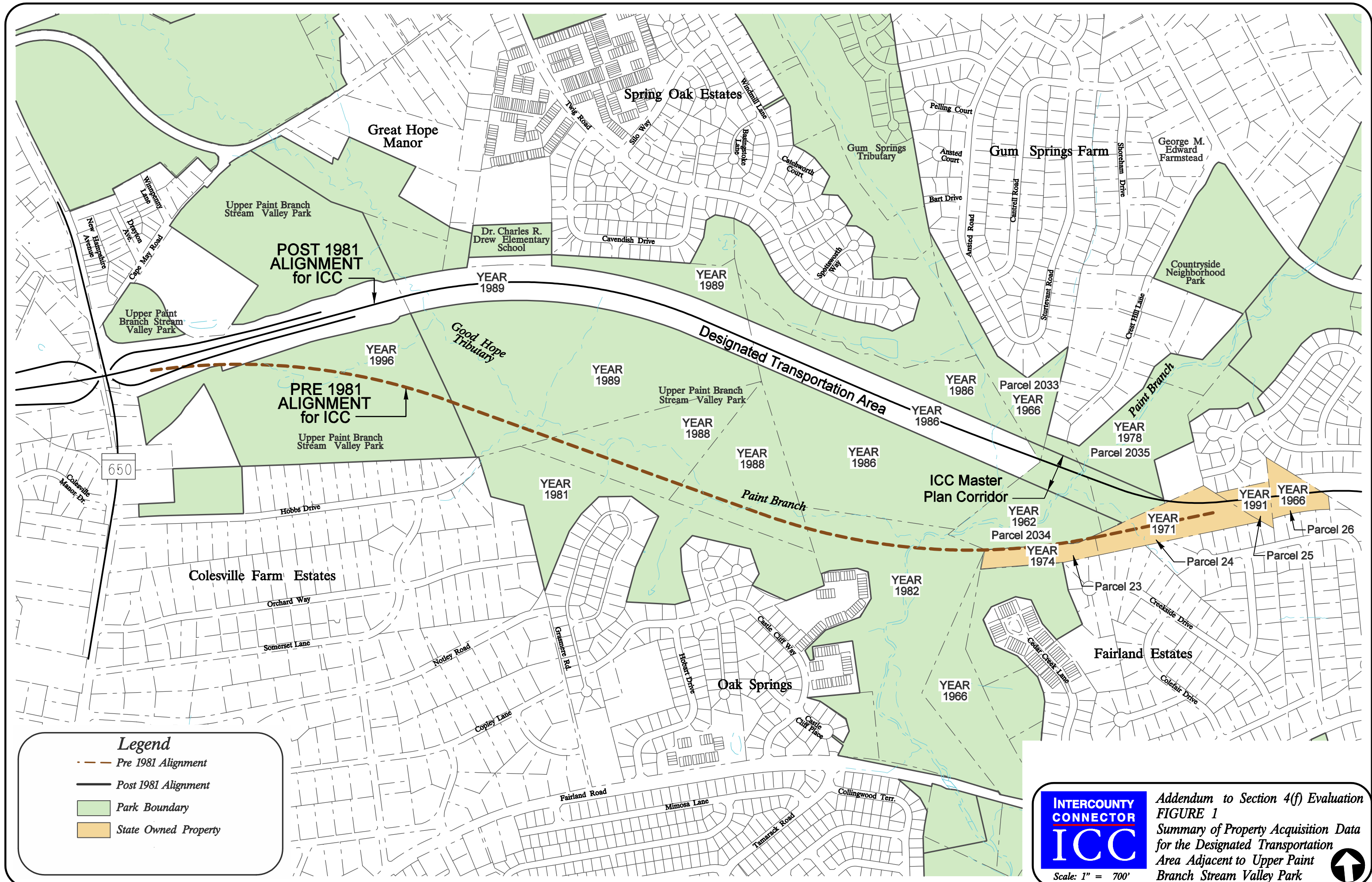
- Figure 1: Summary of Property Acquisition Data for the Designated Transportation Area Adjacent to Upper Paint Branch Stream Valley Park
- Figure 2: Environmental Issues Associated with the 1981 Master Plan Alignment
- Figure 3: Unused State-Owned Property Adjacent to Upper Paint Branch Stream Valley Park

Attachment 2: Correspondence

- Letter from SHA to M-NCPPC (May 3, 2006)
- Letter from FHWA to DOI (May 5, 2006)
- Letter from M-NCPPC to SHA (May 15, 2006)
- Letter from DOI to FHWA (May 16, 2006)

Attachment 3: Excerpts from Approved & Adopted Master Plan, Eastern Montgomery County Planning Area: Cloverly, Fairland, White Oak Master Plan (Cover & page 169)

ATTACHMENT 1



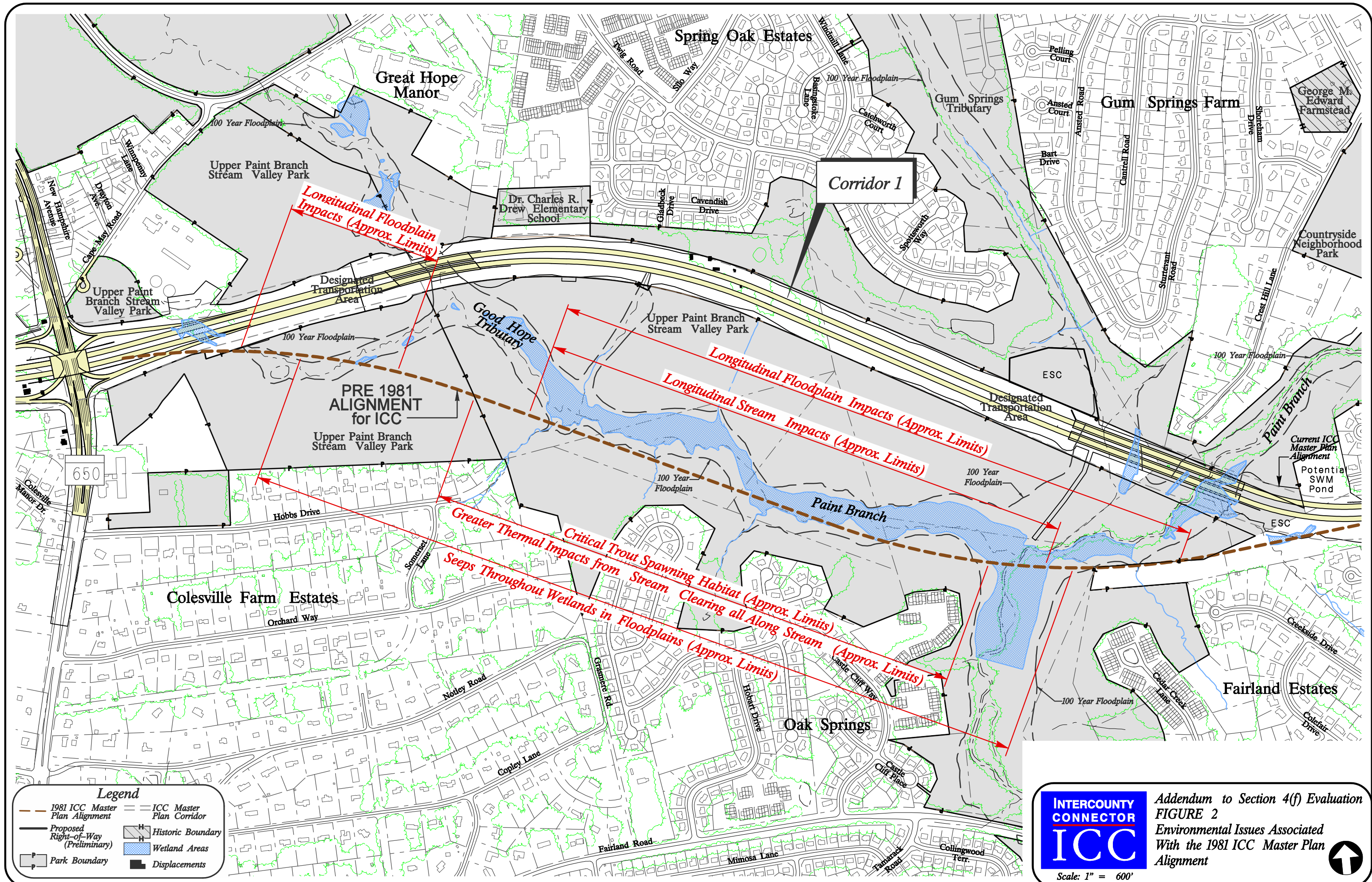
Legend

- - - Pre 1981 Alignment
- Post 1981 Alignment
- Park Boundary
- State Owned Property

INTERCOUNTY CONNECTOR
ICC

Scale: 1" = 700'

Addendum to Section 4(f) Evaluation
FIGURE 1
Summary of Property Acquisition Data
for the Designated Transportation
Area Adjacent to Upper Paint
Branch Stream Valley Park



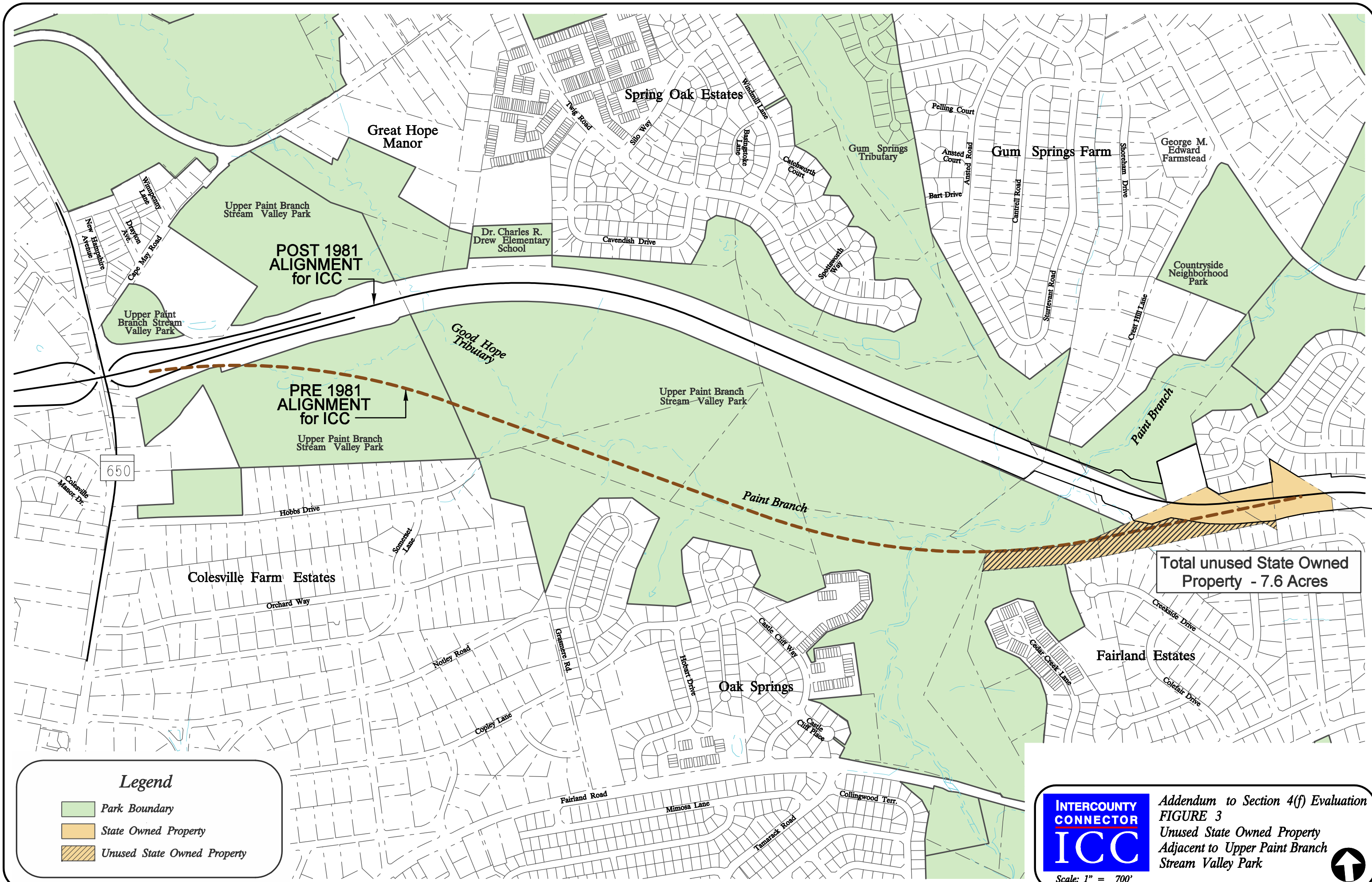
Legend

- 1981 ICC Master Plan Alignment
- Proposed Right-of-Way (Preliminary)
- Park Boundary
- ICC Master Plan Corridor
- Historic Boundary
- Wetland Areas
- Displacements

INTERCOUNTY CONNECTOR
ICC

Addendum to Section 4(f) Evaluation
FIGURE 2
 Environmental Issues Associated
 With the 1981 ICC Master Plan
 Alignment

Scale: 1" = 600'



Legend

- Park Boundary
- State Owned Property
- Unused State Owned Property

INTERCOUNTY CONNECTOR
ICC

Addendum to Section 4(f) Evaluation
FIGURE 3
Unused State Owned Property
Adjacent to Upper Paint Branch
Stream Valley Park

Scale: 1" = 700'

ATTACHMENT 2



Robert L. Ehrlich, Jr., *Governor*
Michael S. Steele, *Lt. Governor*

Robert L. Flanagan, *Secretary*
Neil J. Pedersen, *Administrator*

Maryland Department of Transportation

May 3, 2006

Mr. Derick P. Berlage
Chairman
Montgomery County Planning Board
Maryland-National Capital Park and Planning Commission
8787 Georgia Ave.
Silver Spring, Maryland 20910

Dear Mr. Berlage:

Enclosed for your review is a Draft Addendum to the Section 4(f) Evaluation for the Intercounty Connector (ICC) project. This Draft Addendum has been prepared in response to comments received on the Final Environmental Impact Statement (FEIS) for the ICC, which raised questions about the Section 4(f) status of certain lands in the Paint Branch area. In response to those comments, we have conducted additional research on three parcels owned by the Maryland-National Capital Park and Planning Commission (M-NCPPC) in the Paint Branch area along Corridor 1. The research focused on a shift in the master planned corridor, which we understand was made by the M-NCPPC in 1981 to reduce impacts to the brown trout spawning areas of Paint Branch.

The attached Draft Addendum to the Section 4(f) Evaluation is prepared to incorporate the results of the additional research. More specifically, the Draft Addendum designates the three parcels as parkland for purposes of Section 4(f), which increases the Section 4(f) use within the Upper Paint Branch Stream Valley Park by 4.9 acres. The Draft Addendum also finds that certain parcels purchased by SHA along the pre-1981 alignment, adjacent to the Upper Paint Branch Stream Valley Park, are no longer needed for the ICC. SHA has committed to offer the unused portions of these parcels – a total of approximately 7.6 acres – to the M-NCPPC for incorporation into the park.

M-NCPPC has previously indicated its intent to have the ICC follow the master planned alignment through the Paint Branch area. Please note that there has not been an alignment shift nor has there been any change in environmental impacts. The only change is that portions of the alignment, which previously were considered transportation right-of-way for purposes of Section 4(f), are now considered parkland. This change in designation has required a recalculation of the Section 4(f) acreage totals. The actual impacts of the project on the environment are unchanged and are reflected accurately in the FEIS.

410-545-0400 or 1-800-206-0770

My telephone number/toll-free number is _____
Maryland Relay Service for Impaired Hearing or Speech: 1.800.735.2258 Statewide Toll Free

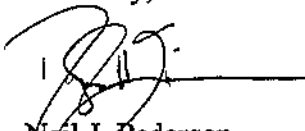
Street Address: 707 North Calvert Street • Baltimore, Maryland 21202 • Phone: 410.545.0300 • www.marylandroads.com

Mr. Derick Berlage
Page Two

In the Draft Addendum, FHWA reaffirms its conclusion in the FEIS (p. V-120) that “there is no feasible and prudent alternative to the use of land from Mill Creek Stream Valley Park, Rock Creek Regional Park, North Branch Stream Valley Park, Layhill Local Park, Northwest Branch Recreational Park, Northwest Branch Stream Valley Park - Unit 5, and Upper Paint Branch Stream Valley Park, and the proposed action (the Corridor 1 Alternative) includes all possible planning to minimize harm to these resources resulting from such use.” As the agency with jurisdiction over the park, the M-NCPPC is being offered an opportunity to review and provide comments on this Draft Addendum to the Section 4(f) Evaluation. We are requesting your expedited response. Once we receive your comments, or are informed that you have no comments, we will finalize the Addendum. We anticipate that the final version of the Addendum will be included in our project file and attached as an appendix to the Record of Decision (ROD) for this project.

If you have any further questions on this matter, please feel free to contact Mr. Raja Veeramachaneni at 410-545-0412, or via email at rveeramachaneni@sha.state.md.us.

Sincerely,


For Neil J. Pedersen
Administrator

Enclosure

cc: Mr. Nelson Castellanos, Division Administrator, FHWA
Mr. Raja Veeramachaneni, Director, SHA



U.S. Department
of Transportation
**Federal Highway
Administration**

Maryland Division
City Crescent Building
10 S. Howard Street
Suite 2450
Baltimore, Maryland 21201

May 5, 2006

Mr. Willie Taylor
Director, Office of Environmental Policy and Compliance
Office of the Secretary
United States Department of the Interior
Washington, DC 20240

Dear Mr. Taylor:

Thank you for your letter dated February 24, 2006 regarding the Intercounty Connector (ICC) Final Environmental Impact Statement (FEIS) and Section 4(f) Evaluation. In response to public comments on the FEIS, we have conducted additional research on three parcels owned by the Maryland-National Capital Park and Planning Commission (M-NCPPC) in the Paint Branch area along Corridor 1. The research focused on a shift in the master planned corridor, which we understand was made by the M-NCPPC in 1981 to reduce impacts to the brown trout spawning areas of Paint Branch.

The attached Draft Addendum to the Section 4(f) Evaluation has been prepared to incorporate the results of the additional research. More specifically, the Draft Addendum designates the three parcels as parkland for purposes of Section 4(f), which increases the Section 4(f) use within the Upper Paint Branch Stream Valley Park by 4.9 acres. Please note that there has not been an alignment shift nor has there been any change in environmental impacts. The only change is that portions of the alignment, which previously were considered transportation right-of-way for purposes of Section 4(f), are now considered parkland. This change in designation has required a recalculation of the Section 4(f) acreage totals. The actual impacts of the project on the environment within this area are unchanged and are reflected accurately in the FEIS.

In the Draft Addendum, FHWA reaffirms its conclusion in the FEIS (p. V-120) that "there is no feasible and prudent alternative to the use of land from Mill Creek Stream Valley Park, Rock Creek Regional Park, North Branch Stream Valley Park, Layhill Local Park, Northwest Branch Recreational Park, Northwest Branch Stream Valley Park - Unit 5, and Upper Paint Branch Stream Valley Park, and the proposed action (the Corridor 1 Alternative) includes all possible planning to minimize harm to these resources resulting from such use."



We request your expedited review and comments/concurrence on the attached addendum. M-NCPPC has previously indicated its intent to have the ICC follow the master planned alignment through the Paint Branch area (which is the alignment followed by Corridor 1). Despite M-NCPPC's stated indication that they consider Section 4(f) a federal government issue, we are providing them a copy of the Draft Addendum to the Section 4(f) Evaluation for their review due to their stake in the park system.

Once we receive your comments, or are informed that you have no comments, we will finalize the Addendum. We anticipate that the final version of the Addendum will be included in our project file and attached as an appendix to the Record of Decision (ROD) for this project.

Finally, on a separate issue related to Section 4(f), we also wish to confirm that the analysis of "constructive use" in the FEIS is considered satisfactory by the Department of the Interior. By way of background, the Department's comment letter on the DEIS requested additional analysis of the potential for a constructive use in several parks where FHWA had acknowledged a direct use. Please note that FHWA policy does not require an analysis of constructive use when a direct use is found. The rationale for this policy is that a direct use, of any magnitude, triggers the obligation to incorporate "all possible planning to minimize harm" to the resource – including any harm resulting from indirect impacts, such as noise or visual impacts.

Based on this interpretation, we have analyzed the potential for a constructive use only with regard to Section 4(f) properties that are not directly used. We understand this to be consistent with the Department of the Interior's Handbook on Departmental Review of Section 4(f) Evaluations. Since your comments on the FEIS did not address this issue directly, we are requesting confirmation that you are satisfied with this approach to the constructive use analysis for this project.

If you have any further questions on this matter, please feel free to contact Dan Johnson at 410-779-7154.

Sincerely yours,



for Nelson J. Castellanos
Division Administrator
Federal Highway Administration

Enclosure

DJohnson:jeh 5-5-06 s:\djohnson\letter to DOI re 4(f) Addendum 05-02-2006



May 15, 2006

Mr. Neil J. Pedersen, Administrator
Maryland State Highway Administration
707 North Calvert Street
Baltimore, MD 21202

Dear Mr. Pedersen:

Thank you for the opportunity to review the Draft Addendum to the Section 4(f) Evaluation for the Intercounty Connector (ICC) concerning the Upper Paint Branch Stream Valley Park. I agree with the report conclusion that the Section 4(f) status of the 4.9 acres of property described in the addendum should not affect the selection of Corridor 1 as the locally preferred alternative.

I also concur with your proposal to transfer 7.6 acres of State Highway Administration property along the pre-1981 ICC alignment to us as parkland. This transfer is an implementation element of the Fairland Master Plan.

The ICC environmental review process facilitated a deliberative and public identification of parklands impact and mitigation. As the Draft Addendum describes, the parkland replacement strategy described in the FEIS remains appropriate. We stand ready to finalize parcel boundaries and precise acreages after issuance of the Record of Decision.

We look forward to continuing our review of the ICC project through the mandatory referral process this summer.

Sincerely,

Faroll Hamer
Acting Director of Planning



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240



ER 04/911

MAY 16 2006

Mr. Nelson J. Castellanos
Division Administrator
Maryland Division
Federal Highway Administration
City Crescent Building
10 South Howard St.
Baltimore, MD 21201

Subject: **Intercounty Connector** Draft Addendum to Section 4(f) Evaluation:
Updated Evaluation of Impacts in Upper Paint Branch Stream Valley
Park

Dear Mr. Castellanos:

The Department of the Interior (Department) has reviewed the Intercounty Connector (ICC) Draft Addendum to Section 4(f) Evaluation: Updated Evaluation of Impacts in Upper Paint Branch Stream Valley Park and offers the following comments. This letter is submitted in accordance with provisions of the National Transportation Act of 1966, as amended (49 U.S.C. 303 *et seq.*).

As part of the public comment process, three parcels of land in the vicinity of the Upper Paint Branch Stream Valley Park have been identified as Section 4(f) parkland, rather than Designated Transportation Area, as reported in both the Draft Environmental Impact Statement and the Final Environmental Impact Statement (FEIS). The total acreage from these three parcels that will be needed for the construction of the ICC is 4.9 acres. Thus the total Section 4(f) use of parkland for the Corridor 1 alignment, which is the project sponsor's preferred alternative, increases by 4.9 acres from 82.9 acres to 87.8 acres.

The parkland mitigation package as described in the FEIS includes 719.8 acres of replacement parkland. As part of the addendum, an additional 7.6 acres of land, owned by the Maryland State Highway Administration, and located adjacent to the Upper Paint Branch Stream Valley Park, have been offered as mitigation to the Maryland-National Capital Park and Planning Commission for park use. If accepted, the parkland mitigation package for the ICC Corridor 1 would increase to 727.4 acres of replacement parkland. This replacement parkland sufficiently mitigates for the loss of parkland along Corridor 1.

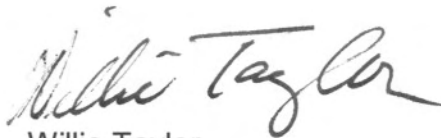
Page -2-

All of the measures listed in the FEIS that are designed to avoid and minimize the use of parkland will remain unchanged. The project as described in the FEIS continues to incorporate all possible planning to minimize harm to Section 4(f) resources. The Department is satisfied with the constructive use analysis presented in the FEIS. Therefore, the Department advises the Department of Transportation that in our view, all of the requirements under Section 4(f) have been satisfied.

The Department has a continuing interest in working with the FHWA, MTA, and SHA to ensure impacts to resources of concern to the Department are adequately addressed. For continued consultation and coordination with the issues concerning Section 4(f) resources, please contact Mr. John G. Parsons, Associate Regional Director for Lands, Resources, and Planning, National Park Service, National Capital Regional Office, 1100 Ohio Drive SW, Washington, D.C, 20242. Mr. Parsons can be reached by telephone at (202) 619-7025.

The Department appreciates the opportunity to provide these comments.

Sincerely,

A handwritten signature in cursive script that reads "Willie Taylor".

Willie Taylor
Director, Office of Environmental
Policy and Compliance

cc:
Mr. Neil Pedersen
Administrator
Maryland State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

ATTACHMENT 3

Approved & Adopted Master Plan EASTERN MONTGOMERY COUNTY PLANNING AREA

• CLOVERLY • FAIRLAND • WHITE OAK •

NOVEMBER 18, 1981
(Printed December, 1982)

An amendment to the Master Plan for the Upper Northwest Branch Watershed, Part I, Zoning and Highways, 1961, as amended; the Master Plan for White Oak and Vicinity, 1962, as amended; the Plan for the Preservation and Use of the Patuxent River Watershed Park, 1964; the Plan for Hillandale and Vicinity, 1965; the Plan for Fairland-Beltsville and Vicinity, 1968, as amended; the Master Plan for Aspen Hill Planning Area, 1970, as amended; the Master Plan of Bikeways, 1978; the Master Plan for Historic Preservation, 1979, as amended; the General Plan for the Physical Development of the Maryland-Washington Regional District; and the Master Plan of Highways within Montgomery County, Maryland.



The Maryland-National Capital Park & Planning Commission

8787 Georgia Avenue
Silver Spring, MD 20910-3760

14741 Governor Oden Bowie Drive
Upper Marlboro, MD 20772-3090

In one place--where the proposed Intercounty Connector crosses Paint Branch--the master plan recommends a realignment of the right-of-way to the north to improve protection of the stream.

Route 29--Howard County Line to White Oak

Four alternatives were considered for Route 29 north of New Hampshire Avenue:

- Reconstruct the roadway as a six-lane freeway from the Howard County line to the Intercounty Connector, and as a six-lane major highway from the Intercounty Connector to New Hampshire Avenue, allowing all traffic to use all lanes.
- Construct a light-rail or other exclusive right-of-way transit system to connect Burtonsville with the Wheaton METRO station. This system would use a widened right-of-way along Route 29, and the Route 29 Spur. It would have stops at major intersections, fringe parking lots, major employment centers, and other appropriate locations.
- Widen the roadway from four lanes to six lanes between the Howard County line and New Hampshire Avenue, operating the two additional lanes as exclusive peak-period bus/carpool lanes.
- Widen the roadway from four lanes to six lanes between the Howard County line and New Hampshire Avenue, allowing all traffic to use all lanes.

The freeway concept proved to be unworkable. The necessary grade separated interchanges would cause local traffic circulation problems on roads and streets paralleling and intersecting with Route 29.

After giving detailed consideration to the light-rail concept, the Planning Board eliminated it. Although projected peak period ridership was in the range considered appropriate for light-rail transit, projected patronage, on a day long basis could not justify the expenditure of capital and operating funds. The line was projected to cost over \$350,000,000, in 1980 dollars. In addition, projections of ridership were within ranges which could be served by a high-level express bus system. Furthermore, it would be difficult to reserve the right-of-way for construction of the light-rail line, when construction would not occur for many years.

**Attachment H -
Project Level Conformity**

Attachment H

Project-level Conformity Determination for the Intercounty Connector Project in Maryland

I. Purpose of this document

The Clean Air Act section 176(c) requires that federally supported highway and transit project activities are consistent with state air quality goals, found in the *state implementation plan* (SIP). The process to ensure this consistency is called Transportation Conformity. Conformity to the SIP means that transportation activities will not cause new violations of the *national ambient air quality standards* (NAAQS or “standards”), worsen existing violations of the standard, or delay timely attainment of the relevant standard.

Transportation conformity is required for federal supported transportation projects in areas that have been designated by the U.S. Environmental Protection Agency (EPA) as not meeting a NAAQS. These areas are called *nonattainment areas* if they currently do not meet air quality standards or *maintenance areas* if they have previously violated air quality standards, but currently meet them and have an approved Clean Air Act section 175A maintenance plan. On January 5, 2005, the EPA designated the Washington, DC-MD-VA area as nonattainment for fine particulate matter, called PM_{2.5}. This designation became effective on April 5, 2005, 90 days after EPA’s published action in the Federal Register. Transportation conformity for the PM_{2.5} standards applies on April 5, 2006, after the one-year grace period provided by the Clean Air Act. At that time, metropolitan PM_{2.5} nonattainment areas must have in place a transportation plan and transportation improvement program (TIP) that conforms and federally supported projects must also be shown to conform after the end of that grace period. For PM_{2.5}, project-level conformity also requires an assessment of localized emissions impacts for certain projects. This localized assessment is called a *hotspot analysis*.

The Intercounty Connector (ICC) project area (Montgomery and Prince George’s counties in Maryland) is within the Washington, DC-MD-VA PM_{2.5} nonattainment area; and therefore the project is required to meet Transportation Conformity requirements found in 40 CFR Part 93 as amended. This document addresses the project level transportation conformity requirements for the ICC, including a hotspot analysis that is described in greater detail in Section V.

EPA amended the Transportation Conformity rule on March 10, 2006¹, requiring a hotspot analysis as part of project-level conformity in PM_{2.5} nonattainment areas for certain projects. The ICC PM_{2.5} hotspot analysis could not be completed until the amendment was final. Since the *Final Environmental Impact Statement/Final Section 4(f) Evaluation* (FEIS) for the ICC was approved on January 3, 2006, the PM_{2.5} hotspot analysis was not included in the FEIS. Therefore, public review and comment for this hotspot analysis is being undertaken separately from that of the ICC FEIS.

The project is in the final stage of NEPA development. The Draft EIS was approved in November of 2004. A Final EIS was approved on January 3, 2006. The Final EIS indicated Corridor 1 as the Preferred Alternative. A Record of Decision is anticipated in Spring 2006.

¹ EPA posted the final rule on its website on March 1, 2006 and the final rule was published in the Federal Register on March 10, 2006.

II. Intercounty Connector Project Description

General

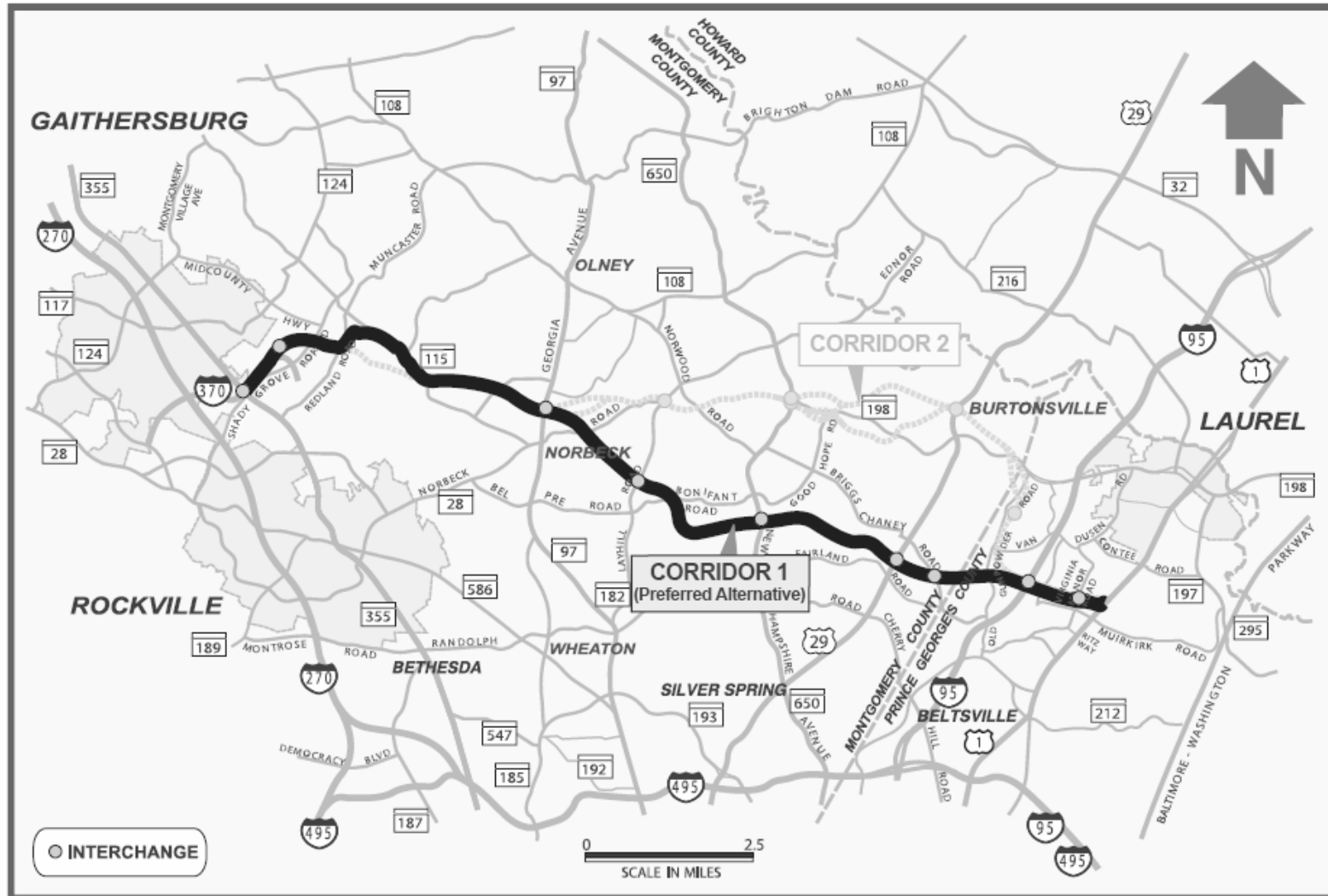
The proposed action, the Intercounty Connector (ICC) would provide a multi-modal 6-lane divided (3 lanes in each direction) east-west highway to link existing and planned development between I-270 and I-95/US 1 corridors in Maryland, a distance of approximately 18 miles. The ICC study area is located in Montgomery and Prince George's counties, north of Washington D.C., extending from I-270 to I-95/US 1, and from the Capital Beltway to the Patuxent River. The study area encompasses an area of mixed land use with heavy concentrations of existing and planned employment along the I-270 and I-95/US 1 corridors, dense residential development in the southern section and some areas of lower density development in the northern section. For a more detailed discussion of the study area land use, please refer to the Chapter 2 of FEIS. While three alternatives were retained for detailed study (one No-Action and two build alternatives) as part of the environmental review process, this analysis was conducted for the Preferred Alternative. The design year for the ICC is 2030 and it is expected to be open to traffic in 2010.

Preferred Alternative

The preferred alternative identified in Chapter 7 of the FEIS is the Corridor 1 build alternative (Figure 1). Corridor 1 follows the general alignment proposed for the ICC by Montgomery and Prince George's counties in their Master Plans. This alternative extends approximately 18 miles from I-370/I-270 near the Shady Grove Metrorail Station to US 1 south of Laurel. Approximately 16 of the 18 miles are located in Montgomery County, and approximately two miles are in Prince George's County. The alignment options being recommended for inclusion with the Preferred Alternative are Rock Creek Option C Grade Separation and Northwest Branch Option A with an interchange at Layhill Road. The Preferred Alternative would include eight interchanges, located at MD 355, Shady Grove METRO Access/Shady Grove Road, MD 97 (Georgia Avenue), MD 182 (Layhill Road), MD 650 (New Hampshire Avenue), US 29/Briggs Chaney Road, I-95, and Virginia Manor Road, as well as an at-grade intersection with US 1.

In addition, Corridor 1 would include park-n-ride lots at the southwest quadrant of ICC/MD 97, the northeast quadrant of ICC/MD 182, and the southwest quadrant of ICC/US 29, and would include an ICC bus route with potential express bus service pick-up/drop-offs at the existing Shady Grove Metrorail Station, the nearby Glenmont Metrorail Station, the proposed MD 97, MD 182, and US 29 interchanges, and at the proposed US 1 intersection (and thereby the Muirkirk MARC Station). The Corridor 1 Alternative would also include a bicycle/pedestrian route, and a package of environmental stewardship opportunities.

Figure 1. Corridor 1: Preferred Alternative for the Intercounty Connector



III. Background

What is Fine Particulate Matter (PM_{2.5})?

Particulate matter (PM) is the term for particles and liquid droplets suspended in the air. Motor vehicles (i.e., cars, trucks, and buses) emit direct PM from their tailpipes, as well as from normal brake and tire wear. In addition, vehicles cause dust from paved and unpaved roads to be re-entrained, or re-suspended, in the atmosphere. Also, highway and transit project construction may cause dust. Finally, gases in vehicle exhaust may react in the atmosphere to form PM.

Particles come in a wide variety of sizes and have been historically assessed based on size, typically measured by the diameter of the particle in micrometers. PM_{2.5}, or fine particulate matter, refers to particles that are 2.5 micrometers in diameter or less. (Note: A human hair is about 70 micrometers in diameter and a grain of sand is about 90 micrometers in diameter). The National Ambient Air Quality Standards for fine particulate matter include an annual standard (15.0 micrograms per cubic meter (ug/m³)) and a 24-hour standard (65 ug/m³). The annual standard is based on a 3-year average of annual mean PM_{2.5} concentrations; the 24-hour standard is based on a 3-year average of the 98th percentile of 24-hour concentrations.

Statutory Requirements for PM Hotspot Analyses

On March 10, 2006, EPA issued amendments to the Transportation Conformity Rule to address localized impacts of particulate matter: “PM_{2.5} and PM₁₀ Hot-Spot Analyses in Project-level Transportation Conformity Determinations for the New PM_{2.5} and Existing PM₁₀ National Ambient Air Quality Standards” (71 FR 12468). These rule amendments require the assessment of localized air quality impacts of Federally-funded or approved transportation projects in PM₁₀ and PM_{2.5} nonattainment and maintenance areas deemed to be *projects of air quality concern*². This assessment of localized impacts (i.e., “hotspot analysis”) examines potential air quality impacts on a scale smaller than an entire nonattainment or maintenance area. Such an analysis is a means of demonstrating that a transportation project meets Clean Air Act conformity requirements to support State and local air quality goals.

Qualitative hotspot analysis is required for these projects before EPA releases its future quantitative modeling guidance and announces that quantitative PM_{2.5} hotspot analyses are required under 40 CFR §93.123(b)(4). EPA requires hotspot findings to be based on directly emitted PM_{2.5}, since secondary particles take several hours to form in the atmosphere giving emissions time to disperse beyond the immediate area of concern. The Conformity Rule requires PM_{2.5} hot-spot analyses to include road dust emissions only if such emissions have been found significant by EPA or the state air agency prior to the PM_{2.5} SIP or as part of an adequate PM_{2.5} SIP motor vehicle emissions budget (40 CFR §93.102(b)(3)). Emissions resulting from construction of the project are not required to be considered in the hotspot analysis if such emissions are considered temporary according to 40 CFR §93.123(c)(5).

IV. PM_{2.5} Regional Conformity Determination

Section 176(c) of the Clean Air Act and the federal conformity rule require that transportation plans and programs conform to the intent of the state air quality implementation plan (SIP) through a regional emissions analysis in PM_{2.5} nonattainment areas. The National Capital Region 2005 Constrained Long Rang Transportation Plan (CLRP) and the 2006-2011 Metropolitan Transportation Improvement Program (MTIP) have been determined to conform to the intent of the SIP. The US Department of Transportation made a PM_{2.5} conformity determination on the CLRP and the MTIP on February 21, 2006, and thus there is a currently conforming transportation plan and TIP in accordance with 40 CFR 93.114. The current

² Criteria for identifying *projects of air quality concern* is described in 40 CFR 93.123(b)(1), as amended.

conformity determination is consistent with the final conformity rule found in 40 CFR Parts 51 and 93. The ICC project was included in the regional emissions analysis and there have been no significant changes in the project's design concept or scope, as used in the conformity analyses. Therefore the project comes from a conforming plan and program in accordance with 40 CFR 93.115.

V. PM_{2.5} Hot Spot Analysis

As noted previously, EPA's final rule on PM_{2.5} hotspot analyses requires localized assessment for projects of air quality concern. The ICC project meets the criteria set forth in 40 CFR 93.123(b)(1) as amended for projects of air quality concern primarily because it is a new highway facility with a significant level of diesel vehicles; thereby requiring a hotspot analysis. The weighted truck percentage for all trucks at the eastern terminus of the proposed ICC alignment is 10.5 percent, which is over EPA's examples of projects of air quality concern of eight percent diesel trucks requiring analysis as stated in the preamble of the rule. Construction-related emissions for the project were considered to be temporary since the project will be completed within the next five years, meeting the criterion of section 93.123(c)(5). Therefore, these emissions are not required to be considered in this hotspot analysis. EPA has not approved a PM_{2.5} SIP for Maryland, nor has EPA or the state air agency made any significance findings related to reentrained road dust for the Washington, DC-MD-VA PM_{2.5} nonattainment area. Therefore, reentrained road dust is not considered in the analysis, per the Conformity Rule. In addition, as there is not an applicable PM_{2.5} SIP, there are no PM_{2.5} control measures and the project is in compliance with 40 CFR 93.117.

According to 40 CFR 93.123(b)(2) and (4), a quantitative analysis for applicable projects is not required until EPA releases modeling guidance in the Federal Register. However, a qualitative hot spot analysis is still required. For the ICC project, a qualitative project-level hotspot assessment was conducted in order to assess whether the project will cause or contribute to any new localized PM_{2.5} violations, or increase the frequency or severity of any existing violations, or delay timely attainment of the PM_{2.5} NAAQS.

Existing Conditions

The affected area for the purposes of this analysis is the ICC study area, as discussed in Section II of this report and further elaborated in the FEIS and associated documentation. This section includes a discussion of currently available information on existing conditions related to air quality and traffic conditions in the project area.

Air Quality – Monitors

There are currently thirteen monitors in the Washington, DC-MD-VA PM_{2.5} nonattainment area: four in the District of Columbia, five in the Commonwealth of Virginia, and four in the State of Maryland. Based on 2005 air quality monitoring data, there are three monitors that exceed the annual mean PM_{2.5} standard of 15.0 ug/m³. Two are in Virginia and one is in DC. None of the monitors in the PM_{2.5} nonattainment area are exceeding the 24-hour PM_{2.5} standard of 65 ug/m³. Appendix A provides a summary of the 2005 air quality monitoring data.

There are two monitors that are in close proximity to the proposed alignment of the ICC. Monitor #240313001 in Rockville, MD is located in the vicinity of the western portion of the ICC at the Lathrop E. Smith Environmental Education Center. Monitor #240330030 in Muirkirk, MD is located in the vicinity of the eastern terminus of the ICC. The Muirkirk Monitor is located next to the Muirkirk MARC commuter train station and CSX rail line. Based on available data from the Maryland Department of Environment, the predominant wind path at the Muirkirk monitor is from the southwest direction. This means that I-95 and US 1 influence the monitor at this location. The Baltimore Washington Parkway was also included in the traffic impact volume due to its proximity to the monitor. Both the Rockville and Muirkirk monitors are currently below the NAAQS for PM_{2.5} (annual and 24-hour).

The Metropolitan Washington Council of Governments (MWCOG) published a report in 2005 that showed a downward trend in annual average PM_{2.5} design values between 1999 and 2004 for the Metropolitan Washing, DC Region.³

Transportation and Traffic Conditions

Currently, mobility in the developed portion of Montgomery and northwestern Prince George's Counties is severely limited, because of lack of a continuous high capacity transportation facility except the Capital Beltway. Due to current and future congested conditions on I-495, the Beltway would carry only a small percentage of the increased future traffic. Local roads in the study area will experience a substantial increase in traffic between 2000 and 2030. Specifically, Shady Grove Road immediately northeast of Frederick Road; Falls Road; Norbeck Road (MD 28) between Georgia Avenue (MD 97) and New Hampshire Avenue (MD 650); and East Randolph Road between Randolph Road and I-95 are expect to increase in ADT by over 50 percent. Please refer to Chapter 1 of the FEIS for a complete presentation of the traffic data.

Built and Natural Environment

Montgomery and Prince Georges' Counties have developed effective planning and growth management systems. The existing land use in the study area is residential, commercial, industrial, and agricultural. *Figure II-6 of the FEIS* depicts the existing land use within the two counties. In the vicinity of the western terminus on the remaining undeveloped land, Montgomery County envisions mixed-use development that provides an opportunity to maximize public transportation. In the Rock Creek Park area, the county plans low-density housing, including some rural cluster zoning. In addition they have plans to expand the parkland. In the remaining parts of the county, they intend to protect environmental resources while supporting increased residential and commercial development.

In Prince George's County the existing land use includes a full range of development. The area is roughly divided into three zones. The northern zone is mostly single-family houses. The middle zone has been used for mineral extraction and agriculture. The southern zone is a mix of uses including residential and commercial. The future land use for the northern zone will be continuation of existing land use with infill development. The middle zone has been designated a regional center with the expectation that the land would be principally commercial, with retail, offices, and some high-density development. The southern portion will remain the same land use that currently exists. For a more detailed discussion of the study area land use, please refer to Chapter 2 of the FEIS.

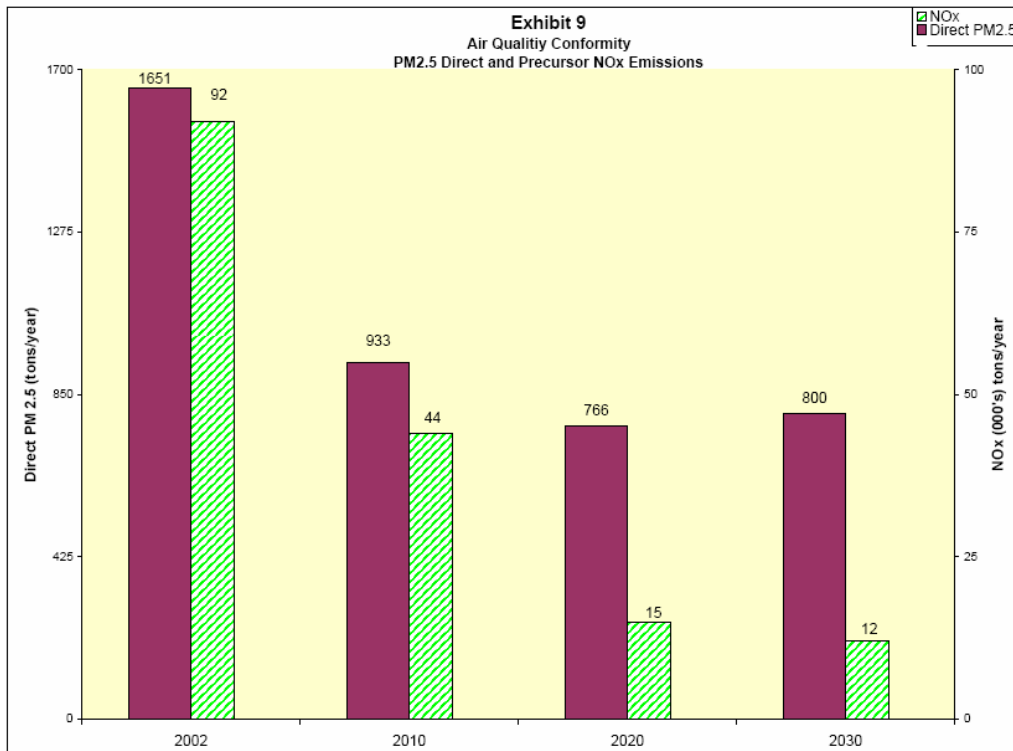
Future Scenario

For the entire nonattainment area, direct on-road mobile sources PM_{2.5} annual emissions are expected to decrease by 56 percent in 2010 from a 2002 baseline.⁴ Emissions estimates using EPA's approved emissions estimation tool, MOBILE6.2, show that PM_{2.5} emissions rates from vehicles will drop by almost 50% between 2010 (the anticipated ICC opening year) and 2030 (the ICC design year). In the MWCOG PM_{2.5} conformity assessment, regional emissions estimates of direct PM_{2.5} from on-road mobile sources show a continued decline through 2030.

³ *Air Quality Trends: Metropolitan Washington Region 1993-2004*, Metropolitan Washington Council of Governments, 2005

⁴ *Fine Particles (PM_{2.5}) Standards Air Quality Conformity Assessment*. December 21, 2005. National Capital Regional Transportation Planning Board. Metropolitan Washington Council of Governments.

Exhibit 1: PM_{2.5} Trends Analysis for Washington, DC-MD-VA Nonattainment Area⁵



Courtesy of MWCOG

According to EPA, the 2007 Heavy-duty engine standards will result in the introduction of new, highly effective control technologies for heavy-duty engines, beginning in 2007. Particulate matter emission levels are expected to be 90 percent lower on a per vehicle basis than 2000 standards levels due to the 2007 diesel engine and fuel program.⁶

The ICC is intended to provide additional roadway capacity in the study area to accommodate the future traffic growth and demand for east-west travel between the I-270 and I-95 corridors. Increasing the region's roadway capacity with the ICC would also open up some capacity on the local road system to accommodate shorter trips. The managed lanes on the ICC and the additional capacity in the region will help to reduce stop and go traffic, extended idling and improve traffic flow in the area. Please refer to Chapter 1 of the FEIS for a complete presentation of the traffic data.

Analytical Considerations

A comparison approach was used, in which the anticipated traffic volumes on the ICC project were compared to those on other major roadways near existing air quality monitors. First, Maryland State Highway Administration (SHA) compiled a list of monitoring stations in Maryland, northern Virginia, and the District of Columbia, and collected data on traffic counts and truck traffic percentages on major roads near these monitors. FHWA then reviewed this list in order to identify a monitoring site that was

⁵ Figure Source: *Fine Particulates (PM_{2.5}) Standards Air Quality Conformity Assessment*, Metropolitan Washington Council of Governments, 2005.

⁶ Heavy-duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements - Final Rule ("2007 Heavy-Duty Highway Final Rule") (Signed December 21, 2000)

close to major roadways and was exposed to similar traffic counts and truck percentages as the ICC project.

As clarified in the preamble to the July 1, 2004 revision to the transportation conformity rule (64 FR 40056), the conformity rule requires that project-level analyses consider the year of expected peak emissions from the project. For PM_{2.5}, this is expected to be a near-term year, such as the first year of operation of the project, because emission rates from vehicles are predicted to decline between the opening year (2010) and the design year (2030) due in part to improvements in tailpipe emissions and national vehicle emissions control programs. As indicated in Exhibit 1, the regional PM_{2.5} emissions are much higher in 2010 than in 2020 and 2030. Since regional emission is a good indicator of the overall emissions trends in the region, therefore it is expected that 2010 would be the year of peak emissions from the project and other emissions sources that affect the project area. In addition, EPA finalized a series of national vehicle control programs expected to reduce vehicle emissions substantially. These programs include the Tier II vehicle and fuel sulfur standards for light-duty vehicles, the 2007 Highway Rule for heavy-duty diesel vehicles, and other related programs.⁷

FHWA reviewed traffic data for the ICC and nearby roadways to identify a worst-case location along the corridor. This review led to the assessment of two locations with different characteristics (Table 1). The location with the overall highest traffic impact in the corridor is where the I-370/ICC meets I-270 and includes the expected traffic volumes from MD 355 (location #1). In 2010, I-270 is projected to carry 184,700 vehicles per day; MD 355 is expected to carry 48,300 vehicles per day; and I-370/ICC in 2010 is projected at 100,300 vehicles per day near its western terminus. Therefore, the total overall 2010 traffic volume in this area would be 333,300 vehicles per day. I-270 has a truck percentage of seven percent near its junction with the I-370/ICC, and both the I-370/ICC and MD 355 are expected to have a truck volume of six percent. The weighted average truck percentage for these three roadways is 6.6 percent, which is approximately 22,000 trucks per day. The second location (location #2) has the highest truck percent where the ICC intersects with I-95. Overall the traffic volume at location #2, which also includes the expected traffic volume from US 1, for 2010 is 261,800 vehicles per day. The weighted average truck percentage for these three roadways is 10.5 percent, which is approximately 27,500 trucks per day.

Site characteristics at these interchanges were also examined. Existing development at I-270 includes industrial, commercial, mixed-use residential, green space, and an elementary school within approximately ½ mile. There is no existing development at the I-95 interchange; currently, a gravel and sand quarry/processing operation occupies approximately 2200 acres surrounding the interchange. Development of this acreage into a high density mixed used site including residential, retail and office space is expected sometime in the future, and is included in the Prince George's Master Plan.

Table 1. Worst-case Locations for Traffic and/or Truck Impact on Proposed ICC Corridor

	Roadway	2010 Average Daily Traffic (ADT)	Trucks ⁸ (percent)	Total Average Daily Traffic Impact (ADT)	Weighted Truck Average (percent)
Location #1	I-270	184,700	7	333,300	6.6
	I-370/ICC	100,300	6		
	MD 355	48,300	6		
Location #2	US 1	37,400	8	261,800	10.5
	I-95	184,400	12		
	ICC	40,000	6		

⁷ For more information on EPA's national vehicle control programs, please refer to EPA's Office of Transportation and Air Quality program information available at <http://www.epa.gov/otaq>.

⁸ The truck percentage includes diesel and gasoline trucks. It also includes buses.

Eleven potential PM_{2.5} monitoring sites were examined⁹. The monitoring site that best matched the worst-case traffic characteristics on the ICC corridor for overall traffic impact, truck percentage, and similarity in traffic characteristics was a monitoring site within the project area in Muirkirk, MD, Monitor #240330030. (Please see Appendix B for a map of this monitoring site). This monitor is located in proximity of three major roadways: I-95, with a 2004 average daily traffic (ADT) volume of 178,900 vehicles per day, US 1 with a 2004 ADT of 31,875, and the Baltimore-Washington Parkway, with a 2004 ADT of 92,825 vehicles per day. The combined total traffic impact at this site is 303,600 vehicles per day. The truck percentage on I-95 near this monitor is 12 percent, 7.5 percent on US 1, and zero on the B/W Parkway (which is truck restricted). The weighted average truck percentage for these three roadways is 7.9 percent, which is approximately 24,000 trucks per day.

In comparing the Muirkirk monitoring site to the ICC, location #1 (I-270 and I-370/ICC interchange) has higher volumes with a lower weighted truck percentage while location #2 (I-95/ICC interchange) has lower volumes, but a higher weighted truck percentage. However, the truck ADT is very similar at the monitoring site and locations #1 and #2 on the ICC.

The 2005 annual average PM_{2.5} concentration the Muirkirk site was 13.4 ug/m³ based on 107 readings, below the annual NAAQS for PM_{2.5} of 15.0 ug/m³. In 2005, the 98th percentile reading for the 24-hour PM_{2.5} concentration at this site was 32 ug/m³, well below the 24-hour NAAQS of 65 ug/m³.

The Muirkirk monitoring site has the most similar characteristics to the traffic impact and percent trucks for the proposed ICC corridor compared to all the monitors in the nonattainment area. This monitor is not showing any violation for PM_{2.5} NAAQS, neither the annual nor the 24-hour standard. In addition, the monitoring results are based on 2005 observations. The 2010 ICC truck impacts on a per vehicle basis should be less than as observed at this monitor in 2005, based on the implementation of national diesel engine and diesel sulfur fuel regulations that are expected to cut heavy-duty diesel emissions. It may also be noted that control programs for other sources in the region, geared toward meeting the 2010 attainment date for the PM_{2.5} standard, may likely improve air quality in the project area. Regional modeling data currently show an expected 56 percent reduction in PM_{2.5} direct emissions by 2010, from a 2002 baseline.

VI. Conclusion

In summary, based on the analysis, it is determined that the ICC project met all the project level conformity requirements, and that the proposed ICC project will not cause or contribute to a new violation of the PM_{2.5} NAAQS, or increase the frequency or severity of a violation for the following reasons:

- A monitor with comparable traffic characteristics and roadway influences to the project area is currently monitoring PM_{2.5} concentrations that are well below the 24-hour and annual standards, with 2005 values 49% of the 24-hour standard and 89% of the annual standard. The monitor values are below the standards, especially for the 24-hour PM_{2.5} standard.
- PM_{2.5} emissions are expected to be reduced in the project area, as demonstrated by projected reductions in the regional emissions analysis, as well as by national projections by EPA reflecting the impacts of national emissions control programs, such as the 2007 Heavy-duty Diesel Rule.

⁹ Thirteen PM_{2.5} monitors exist in the nonattainment area; however, there are two monitors co-located at three sites. Therefore, the total number of available sites is 11.

- Although the worst case traffic volumes along the ICC corridor (location #1) are higher than the comparison monitor, the percentage of trucks and actual number of trucks at that location are below the comparison monitor. The worst- case truck percentage along the ICC corridor (location #2) is somewhat higher than the comparison monitor, but on-road emissions reductions and other national emissions control programs such as the heavy-duty diesel standards should offset the higher number of trucks.

Appendix A

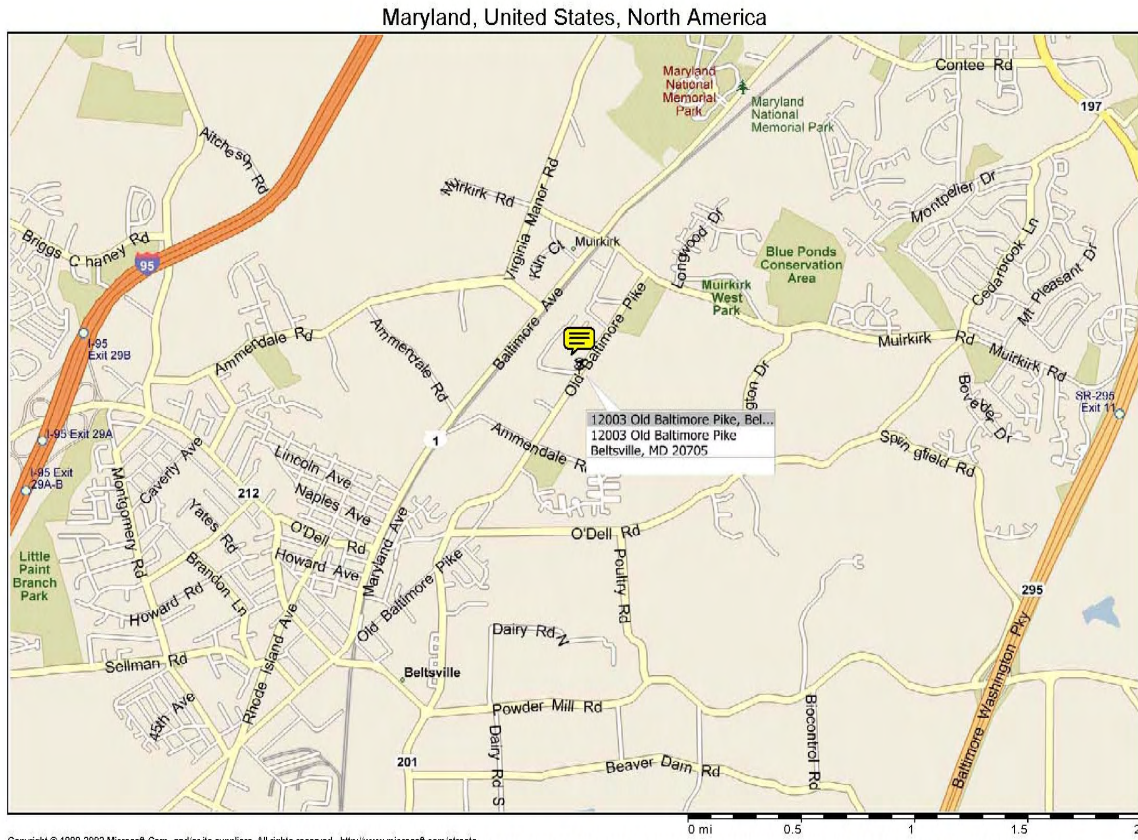
2005 Monitors in the Washington, DC-MD-VA PM_{2.5} Nonattainment Area¹⁰

Monitor Number and Name	Number of Observations (24-hour)	98 th Percentile (24-hour)	Annual Mean (24-hour)
240330030 Muirkirk, MD	107	32	13.4
240313001 Rockville, MD	120	32	13.6
240338003 Upper Marlboro, MD Monitor 1	108	31	13.8
240338003 Upper Marlboro, MD Monitor 2	60	32	13.3
110010041 RFK Stadium (34 th & Dix) Monitor 1, DC	321	36	14.8
110010041 RFK Stadium (34 th & Dix) Monitor 2, DC	67	31	15.5
110010043 Near Howard University, DC	332	35	14.5
110010042 near Tidal Basin, DC	115	36	15.8
510130020 near Pentagon City, VA	110	34	15.2
510595001 McLean, VA	95	36	14.7
511071005 Ashburn, VA	104	38	14.5
510590030 Franconia, VA	314	35	13.4
510591005 Annandale, VA	110	35	14.3

¹⁰ Maryland Data: Maryland Department of the Environment, Air Monitoring Program
District of Columbia and Virginia Data: United States Environmental Protection Agency, Office of Air Quality Planning and Standards, Information Transfer and Program Integration Information Transfer Group. AIRS Data website: <http://www.epa.gov/air/data/monvals.html>

Appendix B

Map of Muirkirk PM_{2.5} Monitoring Site (Number 240330030)



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Appendix C

Monitoring Sites Assessment¹¹

Monitor Number and Name	Traffic Impact Volumes*	Weighted Truck Percent	Comments
240330030 Muirkirk, MD	303,600	7.9	Selected monitor.
240313001 Rockville, MD	74,375	**	Traffic volumes too low.
240338003 Upper Marlboro, MD***	93,650	**	Traffic volumes too low.
110010041 RFK Stadium (34 th & Dix), DC***	235,600	5.4	Truck percent too low.
110010043 Near Howard University, DC	130,900	**	Traffic volumes too low.
110010042 near Tidal Basin, DC	223,652	5.04	The truck percentage data is not available for one of the impact roadways
510130020 near Pentagon City, VA	346,000	2.17	Truck percent too low.
510595001 McLean, VA	301,000	3.4	Truck percent too low.
511071005 Ashburn, VA	124,000	**	Traffic volumes too low
510590030 Franconia, VA	216,500	6.2	Truck percent too low.
510591005 Annandale, VA	282,000	2.7	Truck percent too low.

* Based on major roads within approximately two miles of the monitor.

** Where traffic impact volumes were less than ½ of 2010 worst-case traffic volumes, weighted truck percentages were not calculated.

*** There are two monitors at this location.

¹¹ Underlying data source: District of Columbia Department of Transportation, Virginia Department of Transportation, Transportation Planning Department, Maryland State Highway Administration