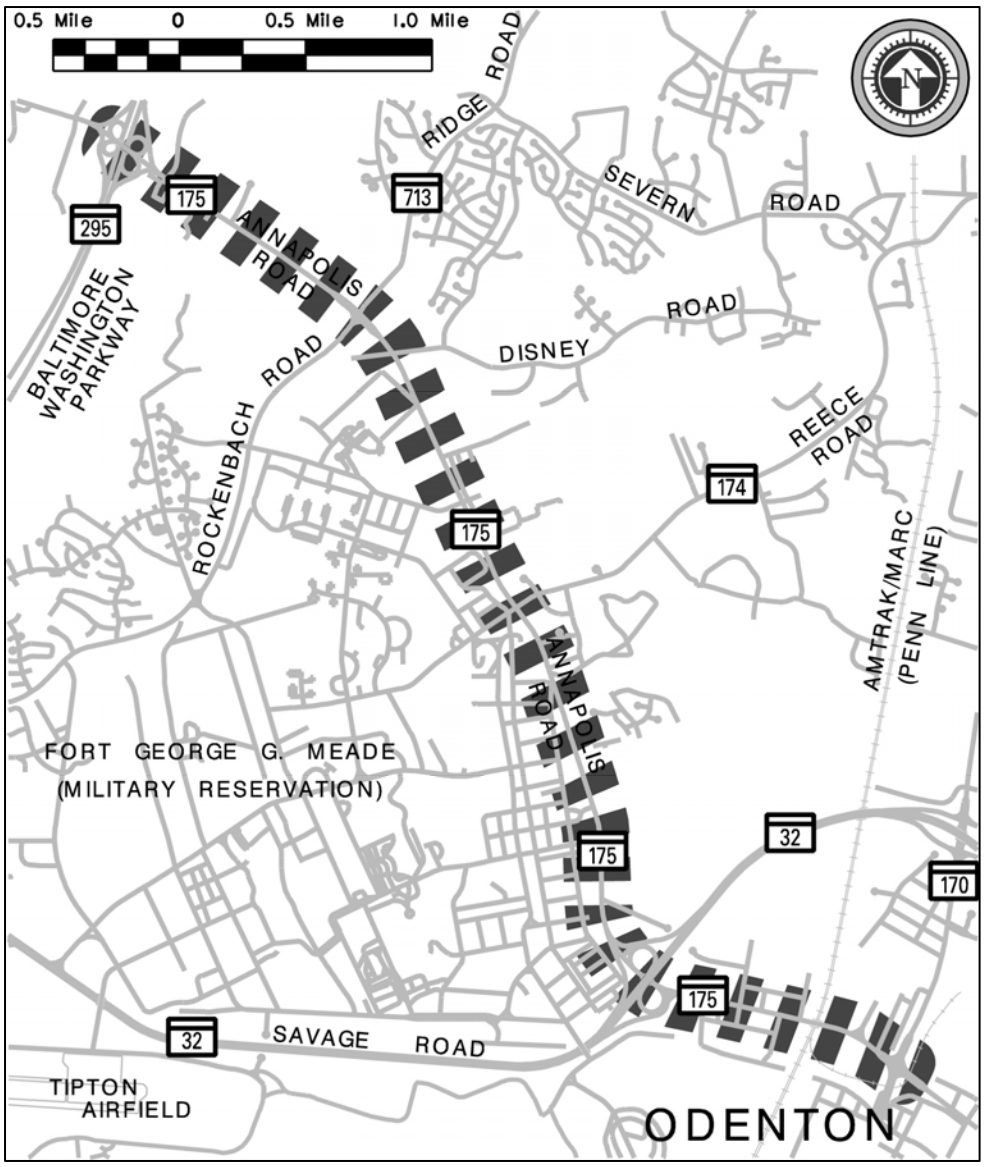
Finding of No Significant Impact / Final Section 4(f) Evaluation

SHA Project Number - AA436B11

MD 175 (Annapolis Road) Project Planning Study

From MD 295 (Baltimore/Washington Parkway) to MD 170 (Telegraph Road)
Anne Arundel County, Maryland



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STATE HIGHWAY ADMINISTRATION

FEDERAL HIGHWAY ADMINISTRATION
DELMAR DIVISION

FINDING OF NO SIGNIFICANT IMPACT/FINAL SECTION 4(f) EVALUATION

MD 175 (Annapolis Road) PROJECT PLANNING STUDY

FROM MD 295 (Baltimore/Washington Parkway) TO MD 170 (Telegraph Road)
ANNE ARUNDEL COUNTY, MARYLAND

U.S. DEPARTMENT OF TRANSPORTATION/FEDERAL HIGHWAY ADMINISTRATION
and
MARYLAND DEPARTMENT OF TRANSPORTATION/STATE HIGHWAY ADMINISTRATION

Cooperating Agencies: **U.S. ENVIRONMENTAL PROTECTION AGENCY**
U.S. ARMY CORPS OF ENGINEERS
FORT GEORGE G. MEADE
NATIONAL PARK SERVICE
MARYLAND DEPARTMENT OF THE ENVIRONMENT

The Federal Highway Administration (FHWA) has determined that the Maryland State Highway Administration (SHA) Preferred Alternative consisting of the following combination: Alternative 4 Modified from Brock Bridge Road to west of MD 295, Option F at the MD 175/MD 295 interchange, Alternative 6 with the 21½ Street Option from MD 295 to MD 32 and Alternative 2A (Enhanced TSM) from MD 32 to MD 170, will have no significant impact on the human, natural, or cultural environment.

The SHA Preferred Alternative will require approximately 92.0 acres of right-of-way, including four residential and eight commercial displacements throughout the MD 175 corridor. Within the limits of disturbance for the SHA Preferred Alternative, 730 linear feet of perennial stream, 1.34 acres of wetland, 0.01 acre of floodplain, 27.1 acres of woodland, and 2.3 acres of Section 4(f) property will be impacted. A Memorandum of Agreement (MOA) with the Maryland Historical Trust (MHT) has been developed for adverse impacts to the Section 4(f) resource, Trusty Friend. The SHA Preferred Alternative includes measures to mitigate impacts to streams, wetlands, forests, parkland, and historic resources.

The MHT has determined that the Preferred Alternative will have no adverse effect on four Section 4(f) resources: Baltimore-Washington Parkway (MD 295), Jones House, Odenton Historic District, and ASA Linthicum. In accordance with the CEQ Regulations and 23 CFR 774, the SHA recommends that the FHWA make *de minimis* findings with respect to the minor impacts the project will have on these resources, except for ASA Linthicum. No right-of-way is required from the ASA Linthicum property. Additionally, there are no active recreational uses in the portion of the Baltimore-Washington Parkway impacted by the MD 175 improvements, and the project would not adversely affect the features, attributes, or activities of this resource. The public was afforded the opportunity for review and comment on these *de minimis* findings at the project's Joint Location/Design Public Hearing held on June 26, 2008. It is SHA's intention to mitigate impacts to the resources and utilize enhancement opportunities during the project design process. Through approval of this Finding of No Significant Impact/Final Section 4(f) Evaluation (FONSI/4(f)), FHWA concurs with these *de minimis* impact findings for Baltimore-Washington Parkway, Jones House and Odenton Historic District as a result of the SHA Preferred Alternative for the MD 175 roadway improvements.

This FONSI/4(f) has been independently evaluated by the FHWA and SHA and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement (EIS) is not required. The FHWA and SHA take full responsibility for the accuracy, scope and content of this FONSI/4(f).

Melinda B. Peters, Administrator
Maryland State Highway Administration

2/15/10
Date

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I. COMPARISON OF ALTERNATIVES

Table 1. Summary of Impacts (for Alternatives Retained for Detailed Study)*

RESOURCES	ALTERNATIVES									
	1	**2**	**2A**	**3**	**4 (Modified)**	**5**	**6**	**6A**	**6B**	
	No-Build	TSM	Enhanced TSM	Six-Lane Roadway on Existing Centerline[2]	Four-Lane Divided W. of Reece Rd[1]	Five-Lane Undivided W. of Reece Rd[1]	Six-Lane Roadway on Shifted Centerline[3]	Resource Minimization Alignment	Hale Street Option	**SHA Preferred Alternative**
1 Displacements										
a. Residential	0	0	1	4	2-4	2-4	4	4	5	4
b. Business/Commercial	0	0	0	41	6-40	6-40	17	16	14	8
c. Historical	0	0	0	1	0-1	0-1	1	0	0	0
TOTAL DISPLACEMENTS	**0**	**0**	**1**	**46**	**8-45**	**8-45**	**22**	**20**	**19**	**12**
2 No. of Properties & Resources Affected										
a. Residential	0	10	13	37	32-39	30-37	39	37	47	40
b. Business/Commercial	0	7	36	118	36-118	36-118	111	103	115	107
c. Fort Meade	0	2	2	2	2	2	2	2	2	2**
d. NPS Property/Recreation Area	0	0	0	1[4]	1[4]	1[4]	1[4]	1[4]	1[4]	1[4]
e. Church/School	0	2	2	4	3-4	3-4	4	4	4	3
f. Historical/Archeological	0	2	4	8[4]	4-8[4]	4-8[4]	8[4]	6[4]	8[4]	5[4]
TOTAL PROPERTIES	**0**	**23**	**57**	**169[4]**	**77-171[4]**	**75-169[4]**	**164[4]**	**152[4]**	**176[4]**	**157**
3 Right-of-Way Required - Acres										
a. Residential	0	0.4	1.4	15.4	12.0-15.2	11.1-14.5	16.5	16.5	18.5	14.4
b. Business/Commercial	0	1.0	4.7	51.3	18.7-50.9	18.7-50.9	34.0	33.6	37.8	26.4
c. Fort Meade	0	4.1	4.5	41.7	28.2-40.9	27.9-40.9	42.1	42.1	42.1	48.2
d. NPS Property/Recreation Area	0	0	0	1.4[4]	1.4-3.6[4]	1.4-3.6[4]	3.6[4]	3.6[4]	3.6[4]	1.4[4]
e. Church/School	0	0.1	0.1	0.9	0.6-2.0	0.5-2.0	0.7	1.8	0.5	0.7
f. Historical/Archeological	0	0.5	0.5	3.3[4]	2.0-5.9[4]	1.9-5.8[4]	5.9[4]	4.9[4]	5.0[4]	2.3[4]
TOTAL ACRES	**0**	**6.1**	**11.2**	**112.6[4]**	**61.5-114.9[4]**	**60.1-114.1[4]**	**99.2[4]**	**98.9[4]**	**103.9[4]**	**92.0[4]**
1 Number of Stream Crossings	0	0	0	7	3-7	3-7	7	7	7	5
2 Linear Feet of Stream	0	0	300	1355	590-1610	585-1615	1630	1635	1630	730
3 100-Year Floodplain Affected (acres)	0	0	0	0.6	0.0-0.6	0.0-0.6	0.6	0.6	0.6	0.01
4 Wetlands Affected (acres)	0	0.2	0.2	1.92	1.30-1.85	1.15-1.72	1.94	2.25	1.94	1.34
5 Woodlands Affected (acres)	0	1.0	2.3	20.1	11.9-23.4	11.7-23.4	23.9	25.1	23.5	27.1
6 Area of Prime Farmland & Soils of Statewide Importance Affected (acres)	0	0	0	12.78	8.21-12.32	7.78-11.94	14.27	13.37	14.27	15.30
Preliminary Construction Cost	**0**	**$10**	**$30**	**$266**	**$151-$280**	**$148-$275**	**$282**	**$292**	**$281**	***$247***
Total Cost ($million)[5]	**0**	**$20**	**-**	**$572**	**$291-$586**	**$288-$581**	**$458**	**$473**	**-**	***$356***

***See Table 2 for a Summary of Impacts for the various design options under consideration with the main build alternatives summarized above.**

***Fort Meade Property consists of two parcels that span several construction segments. Therefore, the acreage impacts have been separated by segment but the properties have only been accounted for once in the Total Properties Affected calculation.*

Notes: [1]Alternative 4 (Modified) & 5 extends from Brock Bridge Road to Reece Road. The range of impacts include Alternative 2 (TSM), 3, 6 and 6A from Reece Road to MD 170.

[2]Alternative 3 Base Alternative contains 4-Lane Divided typical section from Brock Bridge Road to Sellner/Race Road, MD 295 Interchange Option F and General Fort Meade Access Option A intersection improvements.

[3]Alternative 6 Base Alternative contains 4-Lane Divided typical section from Brock Bridge Road to Sellner/Race Road, MD 295 Interchange Option E and General Fort Meade Access Option A intersection improvements.

[4] The NPS Property impact shown has also been accounted for in the Historical/Archeological impacts but has only been added once to create the total impact.

[5] Total Cost includes construction and right-of-way costs

Table 2. Summary of Impacts (for Design Options to Alternatives shown in Table 1)

		MD 175/MD 295 Interchange Options			Access Options			Mainline Alternative Alignment Shift
RESOURCES		Interchange Option A2*	Max Blobs Option A**	Max Blobs Option B**	General Fort Meade Access Option B (CFI) ***	Option B ***	Option B Modified ***	21 ½ Street Shift*
1	No. of Displacements							
	a. Residential	0	0	0	0	0	0	0
	b. Business/Commercial	0	0	0	0	0	0	0
	c. Historical	0	0	0	0	0	0	0
TOTAL DISPLACEMENTS		**0**	**0**	**0**	**0**	**0**	**0**	**0**
2	No. of Properties & Resources Affected							
	a. Residential	0	0	0	0	0	0	0
	b. Business/Commercial	-1	+1	+1	0	0	0	0
	c. Fort Meade	0	0	0	0	0	0	0
	d. NPS Property/Recreation Area	0	0	0	0	0	0	0
	e. Church/School	0	0	0	0	0	0	0
	f. Historical/Archeological	0	0	0	0	0	0	0
TOTAL PROPERTIES		**-1**	**+1**	**+1**	**0**	**0**	**0**	**0**
3	Acres of Right-of-Way Required							
	a. Residential	0	0	0	0	0	0	0
	b. Business/Commercial	-0.1	+0.1	+0.1	0	0	0	0
	c. Fort Meade	0	0	0	+3.8	+8.9	+7.5	+6.1
	d. NPS Property/Recreation Area	+0.3[4]	+0.2[4]	+0.2[4]	0	0	0	0
	e. Church/School	0	0	0	0	0	0	0
	f. Historical/Archeological	+0.3[4]	+0.2[4]	+0.2[4]	0	0	0	0
TOTAL ACRES		**+0.2[4]**	**+0.3[4]**	**+0.3[4]**	**+3.8**	**+8.9**	**+7.5**	**+6.1**
1	Stream Crossings (No.)	0	0	0	0	0	0	0
2	Stream (Linear Feet)	-70	0	0	0	0	0	-160
3	100-Year Floodplain (acres)	0	0	0	0	0	0	0
4	Wetlands (acres)	0	0	0	0	0	0	+0.01
5	Woodlands (acres)	+1.2	0	0	0	0	+1.4	+4.5
6	Prime Farmland (acres)	0	0	0	0	0	0	+1.39
Total Cost ($million)[5]		**$7**	**$3**	**$3**	**$9**	**$28**	**$17**	**$10**

How to Use Tables 1 and 2: *Table 2 is to be used together with Table 1 in determining the impacts for design options that have been developed to work in combination with the basic alternatives presented in Table 1. The numbers above do not represent total impacts for the option, rather the numbers above indicate what value to add to or subtract from the impacts in corresponding impact categories on Table 1.* ***Example:*** *Determine the amount of right-of-way required from Fort Meade with "Mapes Road Option B for Alternative 6". In Table 1, the Alternative 6 column shows that 42.1 acres of land are required from Fort Meade property. In Table 2, the "Mapes Road Option B" column shows that an additional 8.9 acres of land are needed for this option; therefore, the resulting total right-of-way required from Fort Meade with "Mapes Road Option B for Alternative 6" is 42.1 acres plus 8.9 acres, or 51.0 acres.*

**This option is only compatible with Alternatives 4 Modified, 5, 6 and 6a;*

*** This option is only compatible with Alternatives 4 Modified, 5, 6 and 6a with Interchange Option E and Alternative 3, 4 Modified and 5 with Interchange Option F;*

**** This option is only compatible with Alternatives 3,6 and 6A*

II. PREFERRED ALTERNATIVE

A. Summary of Purpose and Need and Project Background

MD 175 is included in the 2004 Highway Needs Inventory and has been identified by Anne Arundel County as its top priority transportation project. The Maryland State Highway Administration (SHA) has evaluated alternatives/options for improving approximately 5.7 miles of the MD 175 corridor, from west of the MD 295 (Baltimore/Washington Parkway) interchange to MD 170 (Telegraph Road/Piney Orchard) in northwestern Anne Arundel County (County) (see **Figure 1**). MD 175 is located just south of Baltimore-Washington International Thurgood Marshall Airport (BWI), about 20 miles from Baltimore and 30 miles from Washington, DC. MD 175 is a major east-west corridor serving the Fort George G. Meade Military Reservation (Fort Meade) and Odenton Town Center (OTC). The purpose of the MD 175 Project Planning Study is to improve the existing capacity, traffic operations, intermodal connectivity, and vehicular and pedestrian safety on MD 175, while supporting existing and planned development in the area. The Federal Highway Administration (FHWA) and SHA are the lead agencies for the project. Cooperating agencies include the U.S. Army Corps of Engineers (COE), U.S. Environmental Protection Agency (EPA), National Park Service (NPS), Fort Meade, and Maryland Department of the Environment (MDE).

Improvements in the study area are needed to address projected operational and safety deficiencies as a result of planned and future development in and around the study area. In addition, this project will serve to accommodate future transportation needs in and around Fort Meade and assist in revitalizing the commercial district in North Odenton. The area around Fort Meade is one of the fastest growing areas of Anne Arundel County. Fort Meade and the National Security Agency (NSA) combined represent the largest employers in the State of Maryland. Numerous developments including Arundel Mills Mall, growth in the BWI Business District, and growth at Fort Meade have contributed to increased traffic volumes in the area. As a result of the 2005 Base Realignment and Closure (BRAC) recommendations, Fort Meade is expected to grow dramatically. This study investigated a variety of approaches to facilitate the anticipated traffic volumes from planned and future development in and around the study area and attempted to address congestion. Further, this study focused on potential safety hazards and identified improvements that may alleviate the magnitude and severity of future crashes along MD 175.

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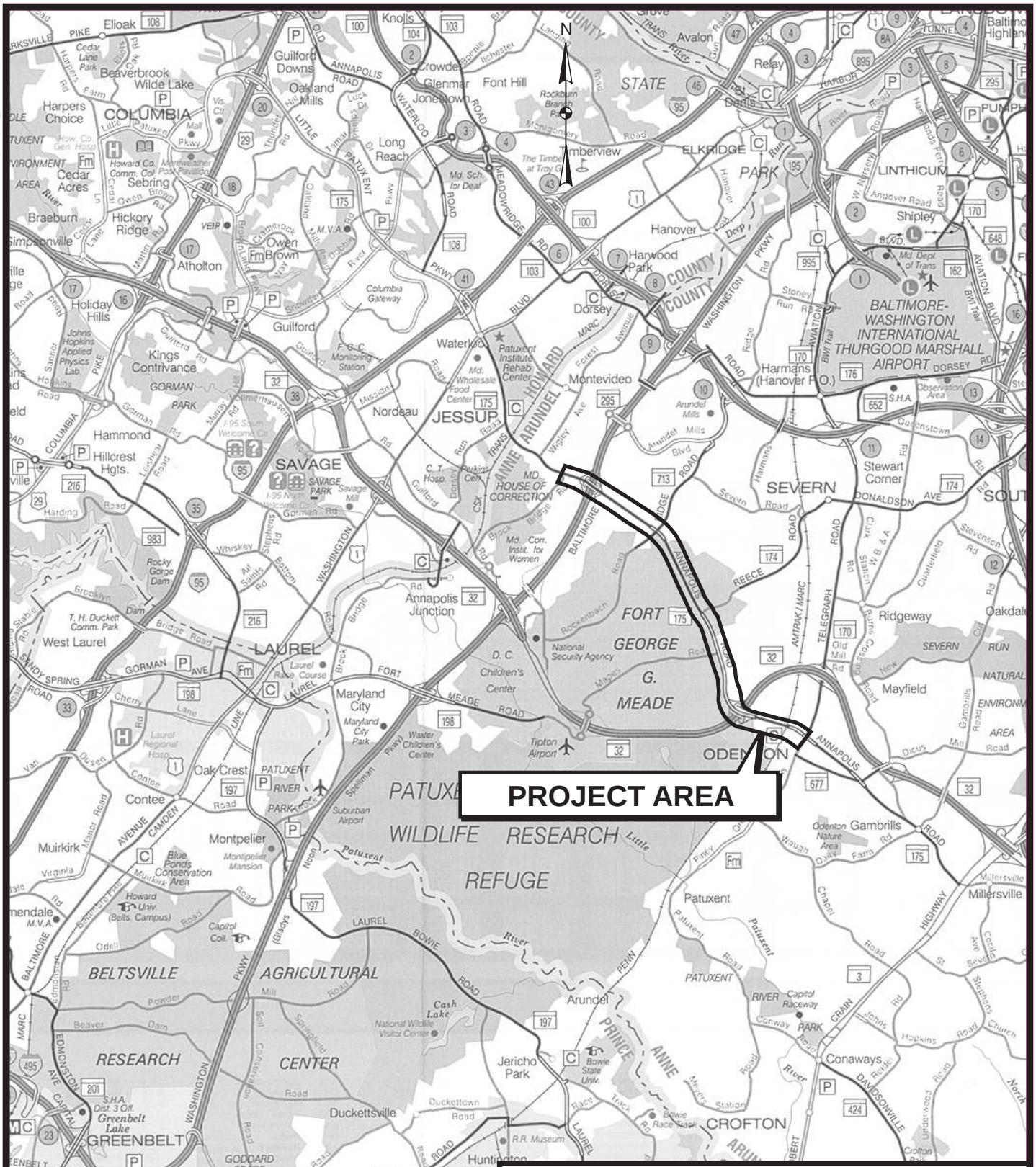
PROJECT AREA
N
COLUMBIA
SAVAGE
LAUREL
JESSUP
ELKRIDGE
SEVERN
ODENTON
FORT GEORGE G. MEADE
BALTIMORE-WASHINGTON INTERNATIONAL THURGOOD MARSHALL AIRPORT
MD. HOUSE OF CORRECTION
PATUXENT WILDLIFE RESEARCH REFUGE
BELTSVILLE AGRICULTURAL RESEARCH CENTER
GREENBELT
GODDARD SPACE FLIGHT CENTER
CROFTON
Annapolis Junction
Tipton Airport
Patuxent River
Patuxent Institute Rehab. Center
Md. Wholesale Food Center
Md. Corr. Instit. for Women
D. C. Children's Center
National Security Agency
Bowie State Univ.
Jericho Park
Cash Lake
Greenbelt Lake
Blue Ponds Conservation Area
Howard Univ. (Belts. Campus)
Capital Coll.
Capital Raceway Park
Odenton Nature Area
Columbia Gateway
Hanover
Harwood Park
Dorsey
Montevideo
Harmans (Hanover P.O.)
Arundel Mills
Stewart Corner
Ridgeway
Mayfield
Gambrills
Millersville
Patuxent
Conaways
Arundel
Duckettsville
Huntington
Glenn Dale
Seabrook
Lanham
NEW CARROLLTON
Defense Heights
LANDOVER
Maryland City
Oak Crest
Contee
Montpelier
Muirkirk
Beltsville
Kings Contrivance
Hammond
Hillcrest Hgts.
Guilford
Guilford Downs
Oakland Mills
Long Reach
Owen Brown
Atholton
Hickory Ridge
Sebring
Cedar Acres
Harpers Choice
Beaverbrook
Wilde Lake
Elioak
Knolls
Crowder
Glenmar
Jonestown
Font Hill
Avalon
Relay
Shipley
Linthicum
Nordeau
Waterloo
Timberview
Rockburn Branch Park
Cedar Lane Park
Holiday Hills
Braeburn
Simpsonville
West Laurel
Rocky Gorge Dam
T. H. Duckett Comm. Park
Laurel Regional Hosp.
Howard Co. Comm. Coll.
Johns Hopkins Applied Physics Lab.
Howard Co. Gen. Hosp.
Maryland City Park
Suburban Airport
Montpelier Mansion
Bowie Race Track
National Wildlife Visitor Center
Doctors Community Hosp.
Wash. Bible Coll.
Md. Sch. for Deaf
Md. Dept. of Trans.
Andover Road
Stoney Run Rd
Observation Area
Quebec Rd
Dorsey Rd
Hanover Road
Harmans Rd
Ridge Rd
Old Mill Rd
Gambrills Rd
Millersville Road
Patuxent Road
Conway Road
Crain Highway
Davidsonville Road
Crofton Pkwy
Defense Hgts. Blvd
Ridgedale Road
Lanham Severn Road
Glenn Dale Road
Duckettown Road
Greenbelt Road
Powder Mill Road
Beaver Dam Road
Cherry Lane
Contee Road
Muirkirk Road
Virginia Manor Road
Sandy Spring Road
Gorman Road
Whiskey Bottom Road
Brock Bridge Road
Fort Meade Road
Laurel Bowie Road
Baltimore Annapolis Blvd
Reece Road
Telegraph Road
Dorsey Road
Guilford Road
Washington Blvd
Waterloo Road
Meadow Ridge Road
Little Patuxent Road
Gorman Ave
Cedar Lane
Harpers Farm Rd
Owen Brown Rd
Cedar Rd
Brown Rd
Thunder Hill Rd
Tamar Drive
Old Dobbin Rd
Dobbin Rd
Martin Rd
Freetown Rd
Johns Hopkins Rd
Guilford Rd
Gorman Rd
Murray Hill Rd
Hollofield Rd
Stephens Rd
Whiskey Bottom Rd
All Saints Rd
Brock Bridge Rd
Rockenbach Rd
Mapes Rd
Dorsey Rd
Guilford Rd
Harmans Rd
Old Mill Rd
Gambrills Rd
Millersville Rd
Patuxent Road
Conway Road
Crain Highway
Davidsonville Road
Crofton Pkwy
Defense Hgts. Blvd
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Laurel Bowie Road
Baltimore Annapolis Blvd
Reece Road
Telegraph Road
Dorsey Road
Guilford Road
Washington Blvd
Waterloo Road
Meadow Ridge Road
Little Patuxent Road
Gorman Ave
Cedar Lane
Harpers Farm Rd
Owen Brown Rd
Cedar Rd
Brown Rd
Thunder Hill Rd
Tamar Drive
Old Dobbin Rd
Dobbin Rd
Martin Rd
Freetown Rd
Johns Hopkins Rd
Guilford Rd
Gorman Rd
Murray Hill Rd
Hollofield Rd
Stephens Rd
Whiskey Bottom Rd
All Saints Rd
Brock Bridge Rd
Rockenbach Rd
Mapes Rd
Dorsey Rd
Guilford Rd
Harmans Rd
Old Mill Rd
Gambrills Rd
Millersville Road
Patuxent Road
Conway Road
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Ridgedale Road
Lanham Severn Road
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Duckettown Road
Greenbelt Road
Powder Mill Road
Beaver Dam Road
Cherry Lane
Contee Road
Muirkirk Road
Virginia Manor Road
Sandy Spring Road
Gorman Road
Whiskey Bottom Road
Brock Bridge Rd

The following alternatives were considered during the development of the MD 175 project: the No-Build Alternative; five build alternatives for widening existing MD 175 to four, five, or six lanes; a Transportation Systems Management (TSM) alternative for improving specific locations or segments of MD 175 roadway; nine options for the existing MD 175/MD 295 interchange; and nine Fort Meade access options (intersection/interchange improvements). Of these, the No-Build Alternative; four build alternatives for widening existing MD 175 to four, five, or six lanes; a TSM alternative for improving specific locations or segments of MD 175 roadway; five options for the existing MD 175/MD 295 interchange; and four Fort Meade access options (intersection/interchange improvements) were retained for detailed study.

Subsequent to the Alternates Public Workshop and Alternatives Retained for Detailed Study (ARDS) concurrence, a resource minimization alignment and an alignment shift for the Fort Meade area were developed. Furthermore, based on feedback from the Public Hearing and to satisfy differing goals of the MD 175 corridor, one build alternative was enhanced to incorporate bicycle/pedestrian facilities, and an option for Hale Street was developed.

B. Description of the Preferred Alternative

The Preferred Alternative (**Appendix A**) was selected based on the information developed for the planning study and input from regulatory agencies and the public (**see Sections IV and V**). In order to best satisfy the different goals of the corridor, multiple alternatives were combined to create the Preferred Alternative, which consists of Alternative 4 (Modified) from Brock Bridge Road to west of MD 295, Option F at the MD 175/MD 295 interchange, Alternative 6 with the 21½ Street Option from MD 295 to MD 32, and Alternative 2A (Enhanced TSM) from MD 32 to MD 170.

- Alternative 4 (Modified) includes widening existing MD 175 to provide a two-lane closed section roadway in each direction, separated by an 18-foot median and adds a five-foot sidewalk on the north side of the roadway and an eight-foot hiker/biker trail on the south side of the roadway. (This alternative is similar to Alternative 4 except the 18-foot median extends to Brock Bridge Road rather than terminating at MD 295 to provide for a continuous median from Brock Bridge Road to Reece Road.)
- At the MD 175/MD 295 interchange, Option F was selected, which is a cloverleaf interchange option that holds the existing southern edge of roadway in the interchange area and eliminates the loop ramps in northeast and northwest quadrants. Traffic

movements provided by these loop ramps would be relocated onto left turns at signalized intersections with MD 175 in the southeast and southwest quadrants, respectively.

- Alternative 6 with the 21½ Street Option includes widening the existing MD 175 to a six lane closed section roadway with an 18-foot median and adds a five-foot sidewalk on the north side of the roadway and an eight-foot hiker/biker trail on the south side of the roadway. This section of the Preferred Alternative also includes a southern alignment shift from east of MD 713 (Rockenbach/Ridge Road) to Reece Road in order to provide the requested minimum standoff distance from existing Fort Meade buildings to the proposed roadway edge. The proposed roadway then ties into and follows the existing MD 175 alignment for the remainder of the alternative.
- From MD 32 east, Alternative 2A (Enhanced TSM) in Odenton generally holds the existing roadway width with the exception of adding turn lane capacity from Nevada Avenue to Morgan Road/Town Center Boulevard. The Enhanced TSM Alternative adds a five-foot sidewalk on the north side of the roadway and an eight-foot hiker/biker trail on the south side of the roadway to the existing typical section.

This alternative best satisfies the different goals present along the corridor. **Appendix B** contains detailed mapping of the Preferred Alternative as well as existing and proposed roadway typical sections. For a detailed description of all alternatives and options considered, as well as a justification for the Preferred Alternative, please see the *Preferred Alternative and Conceptual Mitigation* concurrence document (SHA 2010).

C. Parkside Development and SHA BRAC Intersections

Prior to implementation of the MD 175 Preferred Alternative, two roadway improvement projects will be constructed along MD 175 within the project area under contracts and agreements that are separate from the MD 175 Project Planning Study. The projects are known as the Parkside Development and the SHA BRAC Intersection project, MD 175 at Rockenbach/Disney Road. Both projects are funded for construction and exhibit logical termini and independent utility, have obtained separate approvals, and are included as existing conditions in the MD 175 Project Planning Study.

1. Parkside Development

The Parkside Development is a proposed 178-acre mixed-use development located on the south side of MD 175 between McCarron Court and Ridgeview Plaza shopping center. See **Figure b2** in **Appendix B** for the location of the Parkside Development. As part of SHA's Engineering Access Permit and the County's approval of the development, the Parkside Development is required to construct a five-lane section along MD 175 from MD 295 to west of MD 713. On May 27, 2010, SHA and BRS/EGGERL, LLC (Parkside's developer) entered into a Memorandum of Agreement (MOA) related to the Parkside improvements. As stipulated in the MOA, the Parkside developer is required to substantially complete the five-lane section by November 30, 2011. See **Appendix C** for a copy of the MOA.

2. SHA BRAC Intersections

In addition to studying long-term solutions along the MD 175 corridor through the MD 175 Project Planning Study, SHA is investigating interim improvements along MD 175 near the Fort Meade gates that will alleviate near-term traffic increases associated with BRAC. The three intersections along MD 175 that SHA is evaluating interim improvements at are: west of Rockenbach/Ridge Road to east of Disney/26th Street; Reece Road; and Mapes Road. Unlike the MD 175 Project Planning Study, which is using 2030 as its design year, the BRAC intersections are using 2015 as its design year.

While three intersections are being evaluated, only the Rockenbach/Disney intersection is currently funded for right-of-way and construction. The Reece Road and Mapes Road projects are only funded for design. With funding in place, the improvements at Rockenbach/Disney are anticipated to begin construction in the Spring of 2011. The improvements proposed at Rockenbach/Disney will tie into the Parkside improvements west of Rockenbach Road and complete a five-lane section through the intersection. Additional through and turn lanes will also be added on Rockenbach Road, Ridge Road, Disney Road and 26th Street. These interim improvements have been designed to be compatible with the MD 175 Preferred Alternative. Since Rockenbach/Disney is the only intersection currently funded for construction, only the improvements at Rockenbach Disney have been removed from the MD 175 Project Planning Study FONSI.

On October 2, 2009, FHWA approved a Categorical Exclusion (CE) for the interim improvements at the three BRAC intersections. The BRAC intersection project will not result in

significant impacts to socio-economic, natural or cultural resources. See **Appendix D** for a copy of the BRAC intersections CE approval.

D. Environmental Impact Summary

The Preferred Alternative would affect multiple social and economic resources, including park and recreation areas, cultural resources, properties, residents and their homes, land values, and employment opportunities within the project area. However, the Preferred Alternative would generally result in fewer overall impacts to these resources than the other build alternatives considered by SHA, and it has the potential to attract new sources of tax revenue. A summary of the impacts associated with the Preferred Alternative is described below and shown in **Table 3.** For comparison purposes, **Table 1** includes an impact summary matrix of all of the ARDS.

1. Socio-economic Environment

The Preferred Alternative would generally improve the socio-economic environment in this area. With the widening of MD 175, traffic congestion along the roadway would lessen as a result of increased operational capacity and improved level of service (LOS).

Reconstruction/redesign of the MD 175/MD 295 interchange would enhance access and mobility to/from MD 175. Anne Arundel County emergency service providers using MD 175 have provided support for the project since the potential exists for response times to improve substantially once the project is completed (see **Appendix C of the Environmental Assessment** (EA)). As a result of lane and access closures, motorists, residents, and businesses would experience adverse short-term temporary effects during the construction phase of the project, which would be mitigated under a Maintenance-of-Traffic (MOT) plan. During construction, SHA would ensure emergency services affected by the Preferred Alternative (e.g., law enforcement, fire and rescue services) would experience minimal disruption and would remain fully functional with safe response times.

Implementation of the Preferred Alternative is integral to the commercial revitalization of the MD 175 corridor, the development of the OTC, to support the employment growth at and around Fort Meade, and to improve traffic operations, intermodal connectivity and vehicular and pedestrian safety on MD 175. The proposed improvements to MD 175 include a hiker/biker path that would greatly enhance safety and improve accessibility from MD 175 to the OTC, Odenton MARC Station, and existing and/or proposed trails within the study area and beyond.

Table 3. Summary of Impacts (for the Preferred Alternative)

RESOURCES		SHA Preferred Alternative
	Displacements	
	a. Residential	4
	b. Business/Commercial	8
	c. Historical	0
TOTAL DISPLACEMENTS		12
	No. of Properties & Resources Affected	
	a. Residential	40
	b. Business/Commercial	107
	c. Fort Meade	2
	d. NPS Property/Recreation Area	1*
	e. Church/School	3
	f. Historical/Archeological	5*
TOTAL PROPERTIES		157*
	Right-of-Way Required - Acres	
	a. Residential	14.4
	b. Business/Commercial	26.4
	c. Fort Meade	48.2
	d. NPS Property/Recreation Area	1.4*
	e. Church/School	0.7
	f. Historical/Archeological	2.3*
TOTAL ACRES		92.0*
	Number of Stream Crossings	5
	Linear Feet of Stream	730
	100-Year Floodplain Affected (acres)	0.01
	Wetlands Affected (acres)	1.34
	Woodlands Affected (acres)	27.1
	Area of Prime Farmland & Soils of Statewide Importance Affected (acres)	15.3
Preliminary Construction Cost		$247
Total Cost ($million)**		$356

**The NPS Property impact shown has also been accounted for in the Historical/Archeological impacts but has only been added once to create the total impact.*
***Total Cost includes construction and right-of-way costs*

Right-of-Way and Displacements

Approximately 92.0 acres of right-of-way would be required for the Preferred Alternative, including four residential and eight commercial displacements along MD 175. These displacements and right-of-way acquisitions would affect some property owners, but would have no significant negative effect on community cohesion, as the Preferred Alternative will not physically bisect any communities not already divided by MD 175 and the existing side roads. Much of the right-of-way required for the Preferred Alternative results from displacements or strip right-of-way acquisition; however, right-of-way acreages noted also include potential stormwater management (SWM) areas that are required. During construction, the SHA will coordinate with area businesses to assist in the distribution of information to customers before, during, and after the construction phase to keep the public informed about the type and timing of expected changes and how customers may access businesses during and after the improvements are in place through media such as newspaper articles, flyers, maps, and signage (especially signage that points customers to access breaks). Existing commercial properties that will remain along the corridor will experience benefits (e.g. reduction in congestion, improved mobility, safety and operation) from the Preferred Alternative. Additionally, new commercial and residential developments are more likely to occur and benefit from the project roadway improvements.

The Preferred Alternative originally proposed displacement of two commercial buildings (several businesses inhabit the buildings) west of Blue Water Boulevard, known as Fortview Plaza. Although the structures are located more than 10 feet from the proposed curb edge, the height of the various entrance doors sit approximately one foot below the existing grade of roadway, which would create a grading issue for the proposed 10-foot sidewalk typical grading section. In order to save the buildings, SHA is now proposing to make use of a retaining wall, with a length of 120 linear feet with an average height of seven feet (includes footer). The revised typical section in this area behind the proposed curb would have a minimum of five feet of green space, a retaining wall and a five-foot sidewalk. The sidewalk would tie into the front of the building. SHA is currently coordinating with the property developers regarding these properties.

Right-of-way would also be required from governmental and community facilities for construction of the Preferred Alternative (i.e., educational and religious facilities, libraries, and a post office). A MOA has been executed between Fort Meade and SHA to document the relationships and

responsibilities between Fort Meade and SHA to acquire a perpetual easement for the use of 48 acres of Fort Meade property for construction of the Preferred Alternative and for SHA to provide in-kind fair market value compensation for such perpetual easement (see **Appendix E**).

The 21½ Street Shift, as requested by Fort Meade, in order to avoid impact to existing Fort-related structures on the north side of MD 175, will require some of the Fort's property, which is currently used by Meade Middle School and Meade High School. Since property lines are not defined in this area (i.e., the Middle School is part of the Fort Meade Complex), a definitive acreage of impact for the school properties cannot be determined. However, based on the current design, the proposed limit of disturbance remains 20 to 25 feet from the boundaries of the school's recreational playing fields; therefore, the schools' functionality, including the facilities associated with the schools, will not be impacted. During the detailed design phase of this project, it may be determined that mitigation measures such as reduced grading or a reduction in the environmental site design (ESD) ditch and/or a reduction in the diversion ditch (located behind the ESD ditch) could be utilized in this area to minimize impacts to the school properties. The installation of fencing located approximately 20 to 25 feet away from the existing athletic field goal posts could also be investigated during the design phase to keep balls from entering the ESD and/or diversion ditches.

Approximately 0.66 acre of right-of-way will be required from religious facilities (0.21 acre from Living Water Community Church, 0.10 acre from Jessup Baptist Church, and 0.35 acre from St. Lawrence Catholic Church); 1.16 acres from a portion of County-owned property where the West County Library is located; and 0.12 acre from the Jessup Post Office. It should be noted, based on burial plot location mapping provided by Nichols-Bethel United Methodist Church and field investigations performed by SHA, the Preferred Alternative will not impact the Nichols-Bethel United Methodist Cemetery. The project's design in this location will be carefully monitored throughout the remaining phases of the project, which may require special provisions.

The Preferred Alternative would result in modifications to approximately 140 driveways along MD 175. Approximately 0.19 acre of right-of-way and reconstruction of the Jessup Volunteer Fire Company No. 29's main and secondary entrances will be required due to the Preferred Alternative; however, one entrance can remain open for use at all times during reconstruction. Therefore, Jessup Volunteer Fire Company would be able to maintain safe response times with minimal disruption. Odenton Volunteer Fire Company No. 28 property (0.02 acre) would be impacted by the installation of sidewalk in this location; however, no roadway widening - only roadway resurfacing - is proposed in this area. Access to all properties adjacent to MD 175 would be

maintained during and after construction. Fair market value would be provided to all property owners as just compensation for land acquisition, and displaced property owners would receive relocation assistance in accordance with the *Uniform Relocation and Real Property Acquisition Policies Act of 1970*, as amended (see **Appendix I**).

Based on the Census 2000 data analysis described in the EA (Section III.A.3.), 11 study area census tract block groups were identified as potentially containing minority populations and five census tract block groups were identified as potentially containing low-income populations. Three of the eight business displacements and two (including one vacant) of the four residential displacements required by the Preferred Alternative are located in census tract block groups that were identified as potentially containing minority populations, but not identified as potentially containing low-income populations. The remaining five business and two (including one vacant) residential displacements are located in census tract block groups that were not identified as potentially containing minority or low-income populations. None of the displacements have been specifically identified at this time as minority or low-income residential displacements. The displacements resulting from the Preferred Alternative are spread out along the corridor (**see Appendix B**), and not concentrated, and therefore they would not be considered disproportionate impacts.

An extensive outreach program was implemented to aid in the identification of minority and low-income populations. This program included various meetings with community groups, public meetings and a newsletter mailing campaign. In addition, a letter was sent to 27 facilities/organizations in the study area, including schools with a high percentage of minority students and churches, community associations and libraries that are located in or near areas potentially containing minority and/or low-income populations (please refer to the **EA, Appendix C**, pages C-82 and C-83). The letter requested the assistance of the facility/organization in informing the community about the project and potential impacts, listed the date of the Public Hearing (June 26, 2008), and offered the opportunity to schedule a meeting with SHA representatives to address any questions and concerns they may have regarding the project. The SHA did not receive any requests for meetings from any of the 27 groups that were mailed a letter. Additionally, efforts were made to reach persons with limited English proficiency through project announcements and flyers published in Korean and Spanish.

Title VI Statement

It is the policy of the SHA to ensure compliance with the provisions of Title VI of the Civil Rights Act of 1964 and related civil rights laws and regulations which prohibit discrimination on the grounds of race, color, sex, national origin, age, or physical or mental handicap in all the SHA programs and projects funded in whole or in part by the Federal Highway Administration (FHWA). The SHA will not discriminate in highway planning, highway design, highway construction, right-of-way acquisitions, or the provision of relocation advisory assistance. This policy has been incorporated in all levels of the highway planning process to ensure that proper consideration may be given to the social, economic and environmental effects of all highway projects. Alleged discriminatory actions should be addressed for investigation to the Equal Opportunity Section of the SHA, to the attention of Mrs. Jennifer Jenkins, Chief, Office of Equal Opportunity, 707 North Calvert Street, Baltimore, Maryland 21202.

Additionally, the Preferred Alternative would not require the displacement of any known concentrations of elderly or disabled persons. It is possible that there are individual elderly or disabled residents and property owners who would be impacted by the Preferred Alternative. As required, appropriate relocation advisory assistance would be offered to such individuals. Additionally, any sidewalks, crosswalks, pedestrian ramps, or other pedestrian amenities would comply with the Americans with Disabilities Act (ADA).

Economic Environment

MD 175 connects to MD 295, I-95 and US 29, which provide access to Washington, Baltimore, and BWI Thurgood Marshall Airport. Employment in the region is anticipated to grow with planned commercial and office development in the area, as the area around Fort Meade is one of the fastest growing areas of Anne Arundel County. New jobs and residents associated with the 2005 BRAC recommendations, coupled with a number of major developments in the Odenton area (and enhanced use lease developments on Fort Meade), could revitalize the corridor, allowing for the addition of new commercial businesses to become more of a regional destination. The Preferred Alternative would enhance commuting time to local and regional business activity, attractiveness of regional businesses to patrons, and safety by reducing traffic delays and improving mobility, which could be an incentive to businesses to relocate to or remain in an already developed area. Aside from temporary changes to traffic patterns during construction, there would be no negative economic

impact on Fort Meade or NSA, which are the two largest employers in the study area (and combined represent the largest employers in the State of Maryland).

Business/commercial property acquisition will be required in certain areas by the Preferred Alternative, including eight business displacements (i.e., one vacant dentist office, four gas stations, one dry cleaner, one Palmistry reader/advisor, and one florist). Given the current commercial vacancy rate along the MD 175 corridor is approximately three percent, many of the displaced businesses may be able to relocate to these existing sites or to one of the new commercial developments planned within the study area. As part of the relocation process the SHA provides advisory services to those displaced businesses that wish to relocate within the area. Through coordination with SHA's District 5 Right-of-Way Office and the Office of Real Estate, efforts will be made to process relocations efficiently and minimize disruptions to businesses and their employees.

Parking impacts associated with the Preferred Alternative were assessed along the MD 175 corridor. Since many of the existing businesses throughout the study area are close to the existing edge of MD 175, any amount of widening to MD 175 would eliminate parking spaces to some degree. The Preferred Alternative is expected to impact parking at 35-50 businesses (some businesses are grouped in one building and share parking spaces), impacting approximately 375–400 parking spaces. Many of the impacted parking spaces will be reconstructed and/or resurfaced during construction. Approximately 150 spaces would be eliminated because of proposed commercial displacements. None of the businesses are displaced due to parking impacts alone. Approximately 0.35 acre of the Maryland Transit Administration (MTA) MARC Odenton Park and Ride lot, including approximately 26 parking spaces (16 within the Odenton Historic District), will be impacted. The Maryland Department of Transportation (MDOT) and the MTA are studying the feasibility of providing a parking structure at the MARC station to accommodate an additional 1,500 much needed spaces. SHA will coordinate with MDOT and MTA to provide mitigation (e.g., replacement parking) for lost parking spaces resulting from construction of the Preferred Alternative.

Land Use

Six master plans govern land use within the study area including: the 2009 Anne Arundel County General Development Plan (The County Plan), the 2003 Odenton Small Area Plan, the 2009 Odenton Town Center Master Plan (OTCMP), the 1999 MD 175 Roadway and Streetscape Plan (The Roadway Plan), the 2004 Jessup/Maryland City Small Area Plan and the 2002 Severn Small Area

Plan. The MD 175 project is consistent with future goals and objectives, including those regarding land use, of both local and regional master planning efforts. Within these planning areas, the proposed project also spans the Fort Meade Master Planning Area and the Odenton Growth Boundary.

Except for an area west of the MD 175/MD 295 interchange, the MD 175 project is located entirely within an Anne Arundel County Priority Funding Area (PFA). The project meets the conditions of COMAR 11.04.13- Smart Growth criteria because the area outside the PFA comprises less than five percent of the total project length and the total lane mileage located outside the PFA does not exceed 20 percent of the total lane mileage of the project. On May 26, 2010, the Maryland Department of Planning concurred that the MD 175 Project was consistent with Maryland's Smart Growth legislation (see **Appendix G**).

There are many opportunities within the MD 175 study area for planned growth in residential, commercial, office and industrial development in accordance with the recommendations and regulatory directives for future development contained in the Small Area Plans and OTCMP. As a result of the 2005 BRAC process, which will bring thousands of Department of Defense jobs and related private sector jobs to Fort Meade, the area is expecting a large increase in development.

Public Utilities

Much of the study area receives existing public water and sewer service. Private wells and septic systems are utilized in areas where public water and sewage are not provided. Baltimore Gas and Electric Company maintains gas distribution mains and electric primary and secondary lines in the MD 175 project area. Verizon Maryland, Inc. provides telephone service in the project area. Coordination with the utility companies and Anne Arundel County regarding existing and proposed utilities has been on-going and will continue throughout the MD 175 project.

Recreation Trails and Scenic Byway

Based on recommendations identified in the County's Pedestrian and Bicycle Master Plan (adopted 2003), the Preferred Alternative includes provisions for bicycles and pedestrians through installation of a five-foot sidewalk on the north side of the roadway and an eight-foot hiker/biker trail on the south side of the roadway throughout the study area, as well as along Morgan Road / Town Center Boulevard. Along the MD 175 corridor, a number of connections would be made between the Preferred Alternative's hiker/biker trail and/or sidewalk, and existing and proposed multi-use trails. Additionally, the proposed typical section between Brock Bridge Road and MD 32 contains 16-foot

outside lanes that are bicycle compatible. These bicycle and pedestrian improvements would provide access to the OTC (which has a planned system of inter-connected multi-use trails), West County Area Library, and the MARC Station, as well as connections to other recreation trail destinations outside the immediate MD 175 corridor, such as the Washington, Baltimore & Annapolis Trail, the South Shore Trail, and two national trails – the American Discovery Trail and the East Coast Greenway Trail.

MD 295 (Baltimore-Washington Parkway), which is bridged over by MD 175 near the western limits of the project, is part of the Star Spangled Banner Scenic Byway. Scenic Byways are an important tool recognized by State and Local governments to build economic development through heritage tourism. Close coordination with SHA's Scenic Byways Program staff would occur in the design phase to ensure appropriate Context Sensitive Solutions (CSS) are incorporated. However, since the MD 175 Project is not proposing any work on mainline MD 295, impacts to the Star Spangled Banner Scenic Byway are not anticipated.

Aesthetics and Visual Quality

The Preferred Alternative would enhance the image of the MD 175 study corridor by providing roadway improvements including streetscape amenities such as sidewalks, bike lanes and a multi-use trail. Existing capacity, traffic operations, and vehicular and pedestrian safety would be improved. In addition, connectivity between Odenton and MD 295 would be improved and the proposed roadway improvements would assist in the revitalization of the North Odenton commercial district. The proposed improvements should upgrade the overall corridor image.

Baltimore-Washington Parkway

The portion of the Baltimore-Washington Parkway (MD 295) south of MD 175 is contained within a 19-mile long, 1,353-acre parkway facility owned by the National Park Service (NPS). As well as being a publicly-owned park, the Baltimore-Washington Parkway is a significant historic resource listed on the National Register of Historic Places (NRHP). As such, the Baltimore-Washington Parkway is a Section 4(f) resource and subject to the regulations cited in 23 CFR 774.

The Preferred Alternative will require use of a minor amount (1.4 acres) of fee-simple right-of-way from the Baltimore-Washington Parkway, to provide proposed interchange ramp improvements including additional lanes and necessary grading and supporting slopes (see **Figure 2**). The Baltimore-Washington Parkway is currently used for highway access as part of the existing MD 175/MD 295 interchange. SHA considered and analyzed several avoidance and minimization

measures (i.e., retaining walls and steep slopes) for the Baltimore-Washington Parkway; however, none fully addressed the project's Purpose and Need, and NPS previously expressed concern over maintenance, safety, and aesthetic issues surrounding the proposed minimization measures. Due to the nature of the interchange options at MD 295 and the location of the NPS boundary extending into the interchange ramps, the only avoidance alternatives would be the No-Build Alternative and Alternative 2 (Transportation Systems Management). Both the No-Build Alternative and Alternative 2 would not involve interchange modifications and therefore do not meet the Purpose and Need of the project. Furthermore, any alignment shift/modification combination would not sufficiently provide a complete impact avoidance measure to the resource. Since the NPS property is currently used for highway access as part of the existing MD 295 interchange, the Preferred Alternative does not affect the current function of the property. The Preferred Alternative does address safety and operational concerns existing under the current conditions.

In accordance with 23 CFR 774, the project qualifies for a Section 4(f) *de minimis* finding since the Preferred Alternative would not adversely affect the features, attributes, or activities of the Baltimore-Washington Parkway. An analysis of feasible and prudent avoidance alternatives is not required for properties that would incur a *de minimis* impact finding, as a *de minimis* impact finding inherently includes the requirement for all possible planning to minimize harm. The project meets the requirements for a *de minimis* impact finding for park impacts based on the following criteria:

- The transportation use of the Section 4(f) resource, together with any impact avoidance, minimization, and mitigation or enhancement measures incorporated into the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f);
- The official(s) with jurisdiction over the property are informed of FHWA's intent to make the *de minimis* impact finding based on their written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f); and
- The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource.

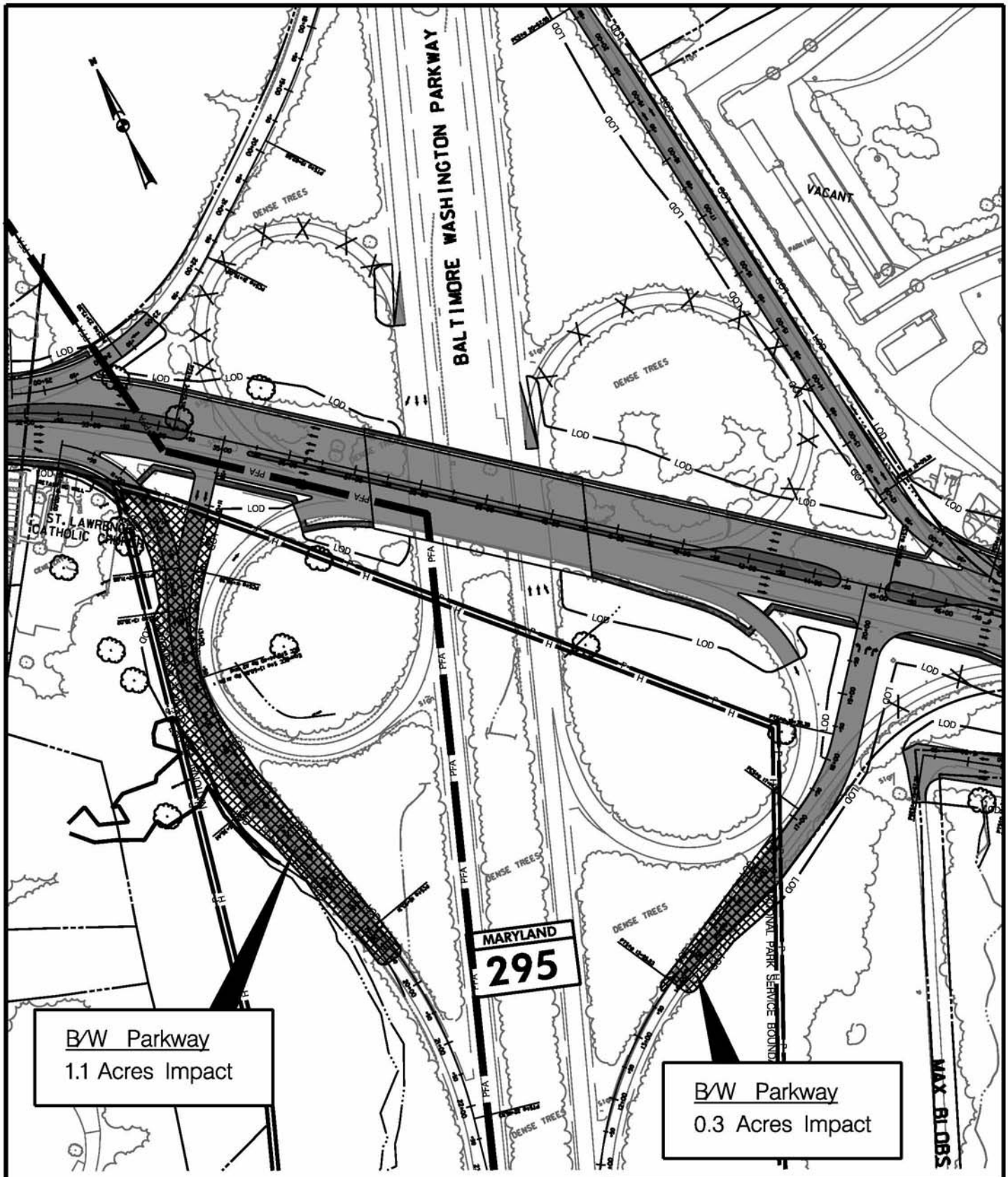
On November 22, 2010, the NPS concurred with SHA's determination that the Preferred Alternative would not adversely impact the remaining activities, features and attributes that qualify

the parkway as a Section 4(f) resource (see **Appendix G**). The concurrence letter also served as notice of SHA's intent to seek a *de minimis* finding from FHWA. The public was afforded the opportunity for review and comment on the park impacts at the project's Joint Location/Design Public Hearing held on June 26, 2008. No specific comments pertaining to park impacts were received at the Public Hearing. Through approval of this FONSI FHWA concurs with the *de minimis* impact finding for Baltimore-Washington Parkway associated with the Preferred Alternative. See D.2 for the *de minimis* finding discussion related to the historic impacts to the Baltimore-Washington Parkway.

2. Cultural Resources

Five historic properties are located within the project area: *Trusty Friend (AA-123)*, *Baltimore-Washington Parkway (AA-5*), *Jones House (AA-743)* and *Odenton Historic District (AA-896),* and the *ASA Linthicum House*. The Jones House is located within the Odenton Historic District but is individually eligible for the NRHP. On November 5, 2010, SHA requested that MHT concur that the Preferred Alternative would result in an adverse effect on the Trusty Friend and a no adverse effect on the Baltimore-Washington Parkway, Jones House and Odenton Historic District (see **Appendix G**). On December 2, 2010, a subsequent letter was sent to MHT noting an expanded Area of Potential Effects (APE) and provided results of additional architectural investigations and impact assessments for the project (see **Appendix G**). The expanded APE accounts for improvements to county roads that intersect with MD 175 throughout the project area, which resulted in additional investigations required for historic standing structures (including the ASA Linthicum House, which was not identified in the November 5, 2010 effects determination letter) in Jessup.

On December 21, 2010, MHT concurred with SHA's determination of effects including the expanded APE (see **Appendix G**). MHT's response stated the Trust concurs that the Preferred Alternative continues to adversely affect Trusty Friend; however, there will be no adverse impact on the Baltimore-Washington Parkway, Jones House, Odenton Historic District or the ASA Linthicum House. MHT also concurred that the following properties are not eligible for listing in the National Register: 2827, 2835, 2874, 2876, 2880, 2883 Jessup Road and 7815 Sellner Road. Additionally, the December 21, 2010 response letter from MHT provided concurrence with FHWA's *de minimis* impact finding for Baltimore-Washington Parkway, Jones House and Odenton Historic District. The MOA between FHWA, MD State Historic Preservation Officer (SHPO) (MHT) and SHA (for Trusty



LEGEND

- PROPOSED ROADWAY
- PAVEMENT REMOVAL
- LIMIT OF DISTURBANCE
- PRIORITY FUNDING AREA BOUNDARY
- PARK BOUNDARY
- HISTORIC BOUNDARY
- Ft. GEORGE G. MEADE MILITARY RESERVATION BOUNDARY
- POTENTIAL WETLANDS
- WETLANDS
- POTENTIAL DISPLACEMENT
- PROPOSED COUNTY MASTER PLAN TRAIL

SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
PROJECT PLANNING DIVISION

MD 175 (ANNAPOLIS ROAD)
From MD 295 to MD 170

B/W PARKWAY (MD 295) PROPERTY IMPACTS
PREFERRED ALTERNATIVE

SCALE 1" = 200' DATE MARCH 2011 FIGURE 2

Friend) is located in **Appendix F**. See **Table 4** for a summary of impacts to historic properties/Section 4(f) resources.

James Temple Property (C A Whittle General Store)

Subsequent to the Public Hearing, the James Temple Property (C A Whittle General Store), located at 1400 Old Annapolis Road (MD 175), was identified within the project area as being over 50 years in age. A Determination of Eligibility form was completed by SHA on October 26, 2010, and submitted to MHT for their review on November 5, 2010, with the recommendation that the property is not eligible for listing in the NRHP and is not impacted by the project. MHT concurred on December 21, 2010 with SHA's recommendation.

The nature and magnitude of the impacts at the Baltimore-Washington Parkway, Jones House, Odenton Historic District, and ASA Linthicum are minor. No right-of-way is required from the ASA Linthicum historic site, as a low-scale (two-foot) retaining wall will be built along SHA right-of-way to avoid any property take from ASA Linthicum on either the MD 175 or Brock Bridge Road. SHA will consult with the owners of ASA Linthicum during the design phase of the project regarding details such as aesthetics. The Preferred Alternative will require use of a minor amount (1.4 acres) of fee-simple right-of-way from the Baltimore-Washington Parkway, to provide proposed interchange ramp improvements including additional lanes and necessary grading and supporting slopes (see **Figure 2**). Since the NPS property is currently used for highway access as part of the existing MD 295 interchange, the Preferred Alternative does not affect the current function of the property. Minor impacts at the Jones House and Odenton Historic District (0.5 acre total, of which 0.3 acres are associated with the Jones House property) are required due to the installation of the hiker/biker trail on the south side of the roadway and the proposed right-turn intersection improvement at Morgan Road (see **Figure 3).**

In accordance with 23 CFR 774, *de minimis* impact findings are being pursued for the minor impacts to the Baltimore-Washington Parkway, Jones House and Odenton Historic District. *De minimis* findings would satisfy the requirements of Section 4(f). MHT concurred with SHA's intent to seek a *de minimis* impact finding for the minor Section 4(f) use of the Baltimore-Washington Parkway, Jones House and the Odenton Historic District on December 21, 2010 **(Appendix G)**. In addition, NPS, the official with jurisdiction over the Baltimore-Washington Parkway, also concurred with SHA's intent to seek a *de minimis* impact finding for the minor Section

4(f) use of that property on November 22, 2010 (see **Appendix G**). The project's public hearing afforded the public the opportunity to comment on the *de minimis* impacts.

This project meets the requirements for *de minimis* impact findings for historic resource impacts based on the following criteria:

- The SHPO, as part of the Section 106 process, determined that the project would have no adverse effect on historic properties;
- The SHPO has been informed of FHWA's intent to make a *de minimis* impact finding based on their written concurrence in the Section 106 determination;
- The views of consulting parties participating in the Section 106 consultation have been considered.

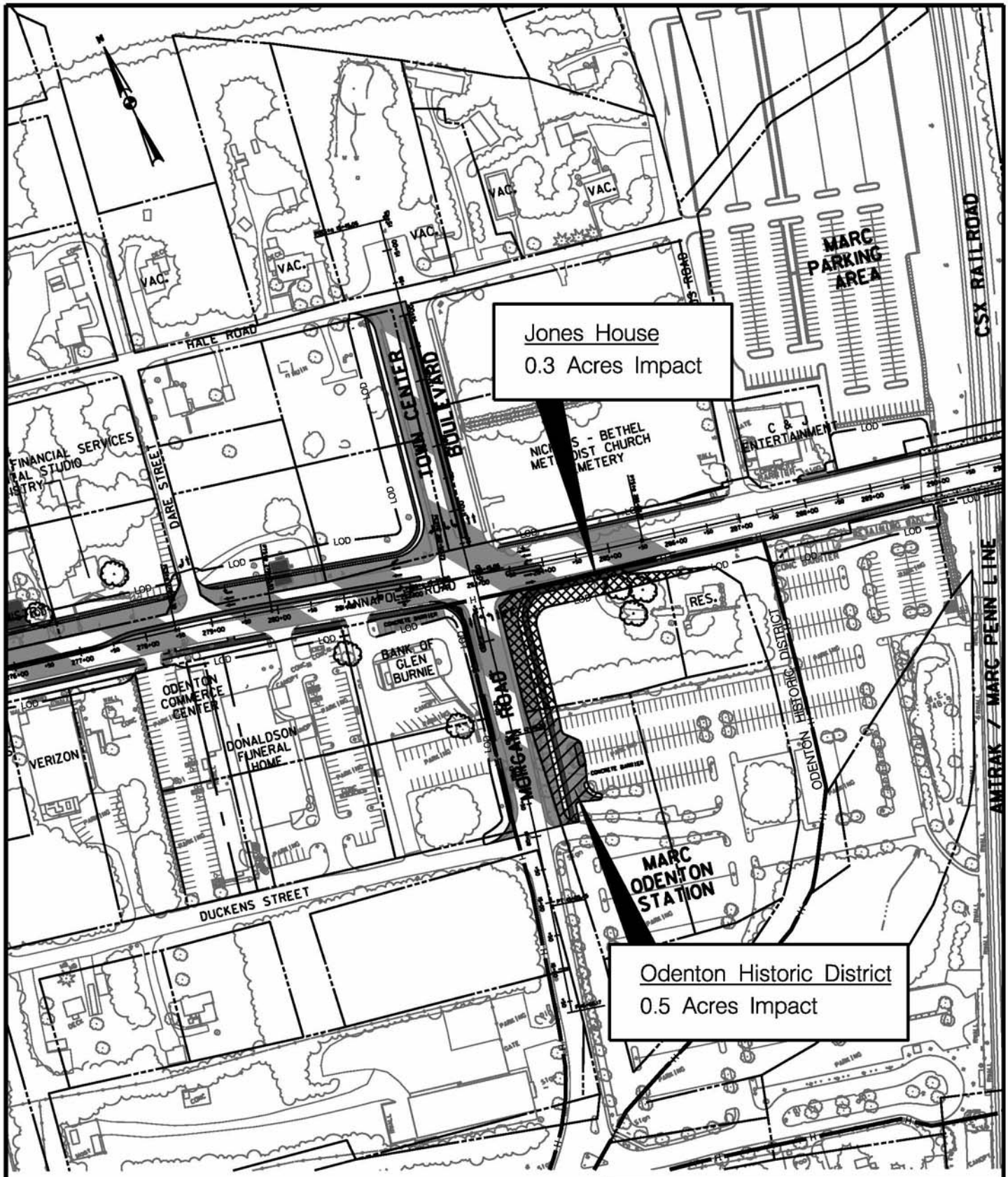
Through approval of this FONSI, FHWA concurs with the *de minimis* impact findings for Baltimore-Washington Parkway, Jones House and Odenton Historic District associated with the Preferred Alternative.

As stated above, the Preferred Alternative would result in an adverse effect to the Trusty Friend (see **Figure 4**). As such, the impacts do not qualify as *de minimis* and an individual Section 4(f) Evaluation is required. A Draft Section 4(f) Evaluation was completed and included in the EA in accordance with the US Department of Transportation Act of 1966 to assess the likely effects of the alternatives retained for detailed study upon Section 4(f) resources, and evaluate alternatives that avoid or minimize impacts caused by the project to those resources. See Chapter III of this document for the complete Final Section 4(f) Evaluation regarding the impacts to Trusty Friend.

Table 4. Summary of Impact to Section 4(f) Resources by the Preferred Alternative

	ASA Linthicum House	**Baltimore-Washington Parkway**	**Odenton Historic District***	**The Jones House**	**Trusty Friend**	**Total Section 4(f) Property Impacted (acres)**
Parkland	No	Yes	No	No	No	
Historic Property	Yes; NRHP eligible	Yes; NRHP listed	Yes; NRHP eligible	Yes; NRHP eligible	Yes; NRHP eligible	
***de minimis* impact finding**	No; "no adverse effect" determination from MHT.	Yes; "no adverse effect" determination from MHT; NPS concurred in writing the project does not adversely affect the activities, features and attributes of the property.	Yes; "no adverse effect" determination from MHT.	Yes; "no adverse effect" determination from MHT.	No; "adverse effect" determination from MHT; See Chapter III. Final Section 4(f) Evaluation.	
Preferred Alternative Impact (acres)	0.0	1.4	0.5*	0.3	0.4	2.3

*These impact numbers include impacts to the Jones House (which is within the Odenton Historic District); therefore, the Jones House column is not included in the Total Section 4(f) Property Impacted acreages.



LEGEND

- PROPOSED ROADWAY
- PAVEMENT REMOVAL
- LIMIT OF DISTURBANCE
- PRIORITY FUNDING AREA BOUNDARY
- PARK BOUNDARY
- HISTORIC BOUNDARY
- Ft. GEORGE G. MEADE MILITARY RESERVATION BOUNDARY
- POTENTIAL WETLANDS
- WETLANDS
- POTENTIAL DISPLACEMENT
- PROPOSED COUNTY MASTER PLAN TRAIL

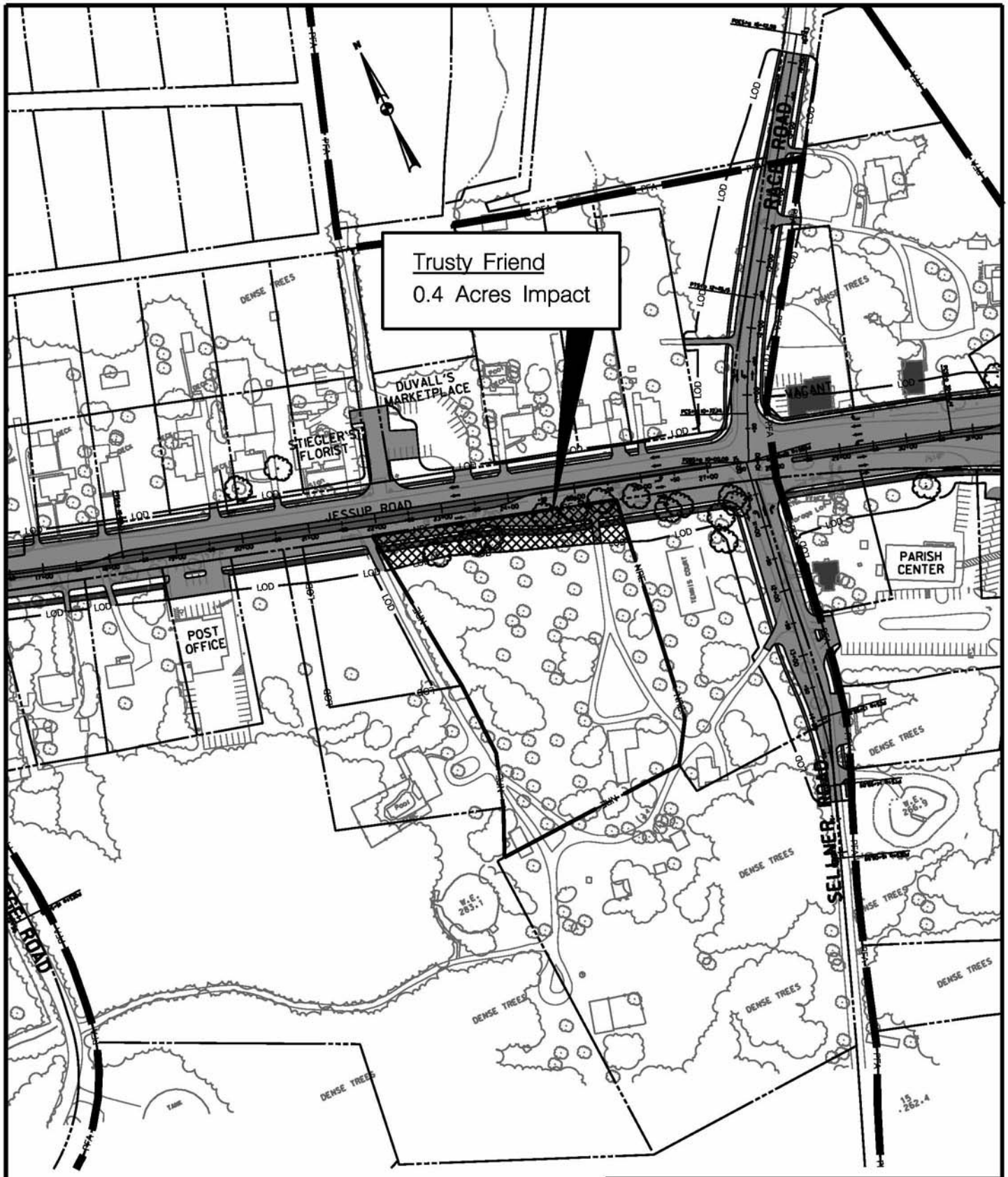
SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
PROJECT PLANNING DIVISION

MD 175 (ANNAPOLIS ROAD)
From MD 295 to MD 170

ODENTON HISTORIC DISTRICT AND JONES HOUSE PROPERTY IMPACTS
PREFERRED ALTERNATIVE

SCALE 1" = 200' DATE MARCH 2011 FIGURE 3



LEGEND

- PROPOSED ROADWAY
- PAVEMENT REMOVAL
- LIMIT OF DISTURBANCE
- PRIORITY FUNDING AREA BOUNDARY
- PARK BOUNDARY
- HISTORIC BOUNDARY
- Ft. GEORGE G. MEADE MILITARY RESERVATION BOUNDARY
- POTENTIAL WETLANDS
- WETLANDS
- POTENTIAL DISPLACEMENT
- PROPOSED COUNTY MASTER PLAN TRAIL

SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
PROJECT PLANNING DIVISION

MD 175 (ANNAPOLIS ROAD)
From MD 295 to MD 170

TRUSTY FRIEND PROPERTY IMPACTS
PREFERRED ALTERNATIVE

SCALE 1" = 200' DATE MARCH 2011 FIGURE 4

3. Natural Resources

Soils

The study area is located within the western shore uplands region of the Atlantic Coastal Plain physiographic province, with surface elevations ranging from approximately 130 to 290 feet above mean sea level (MSL). Existing slopes range from 0 to 44% with the steepest slopes occurring around the MD 295 and MD 32 interchanges. Slopes are generally steeper along the western portions of MD 175 and slightly less steep towards the east. Slopes tend to be forested and low-lying areas around the margins of waterways are frequently wetlands.

The Preferred Alternative would have minimal effects to existing topography, with proposed grades not to exceed six percent; however, cutting and filling would be involved. Cut and fill slopes would not exceed a ratio of two horizontal to one vertical from the hinge point of the proposed typical section to the existing ground. The maximum depth of cut associated with the Preferred Alternative would be approximately 25 feet and the maximum fill would be approximately 30 feet in bridge areas.

The Anne Arundel County Soil Survey shows two main soil associations and 32 different soil types within the study area, including highly erodible soils, Prime Farmland Soils, and Soils of Statewide Importance. Direct impacts to soils by alternatives are summarized in **Tables 1 and 2**. There would be 15.3 acres of impacts to prime farmland soils with the Preferred Alternative. In accordance with the Farmland Protection Policy Act (FPPA), since the soils that are being impacted are not on land that is agriculturally zoned, a Farmland Conversion Impact Rating form is not required for this project.

In accordance with MDE guidelines, a Sediment and Erosion Control Plan would be developed during the final design phase, and implemented to avoid and/or minimize erosion and sedimentation. Increased runoff from additional impervious surfaces could impact soils, wetlands, and waterways post construction. SWM and erosion and sediment control Best Management Practices (BMPs) would be incorporated into the roadway design to minimize the extent of soil disturbance and reduce soil loss.

Impervious Surface

The Preferred Alternative would require the addition of 29 acres of impervious surface to the Little Patuxent River and the Severn River watersheds. This is a comparable amount to the other

build alternatives. The proposed widening of MD 175, with respect to added impervious surface, would primarily impact the potential reduction in groundwater recharge. Groundwater base flow in the study area is critical to maintaining aquatic habitats and for water supply. The quantity of groundwater available for maintenance of base flow may be affected by reduced groundwater recharge caused by new pavement and soil compaction by construction activities. Stormwater infiltration involves techniques that capture and temporarily store runoff before allowing it to infiltrate into the soil over a period of time. Infiltration practices are an excellent technique for meeting recharge requirements and may also provide stormwater detention and channel protection. These techniques usually involve the use of grass channels, grass filter strips, sand layers, filter fabric, and gravel. Properly constructed and maintained infiltration facilities can reduce or eliminate base flow impacts.

The addition of impervious surfaces to those associated with existing and planned developments in the project area may incrementally degrade stream water quality and ecological health due to chemical and sediment pollution. Pollutants such as heavy metals, organic salts, hydrocarbons, oil and grease, rubber particles, suspended solids, deicing salts typically accumulate on road surfaces and are mobilized and transported to surface waters during rain events. SHA adheres to the erosion and sediment control procedures and the *Maryland Stormwater Management Guidelines for State and Federal Projects* and would obtain the appropriate permit and approval from MDE for this project once in final design. SHA would provide water quality BMPs that would meet the *2000 Maryland Stormwater Design Manual* following the latest MDE guidelines. Additionally, ESD practices are being proposed in the project area in accordance with the Maryland Stormwater Act of 2007.

Aquatic Resources

The Preferred Alternative has been designed with the intention of avoiding and minimizing harm to wetlands and Waters of the U.S., in accordance with Executive Order 11990, and regulated by Section 404 of the Clean Water Act. Of all the build alternatives considered, besides Alternative 2, which consists of only minor intersection, geometric and access improvements, the Preferred Alternative will result in the least amount of impacts to streams and wetlands. The 2008 Environmental Assessment (EA) served as the Joint State/Federal permit application (JPA), and was provided to MDE and COE for authorization of the wetland and stream impacts. Impact information specific to the Preferred Alternative will be shared with the agencies to ensure permits include latest impact totals and an appropriate amount of mitigation is properly applied.

Wetlands. Total impacts to wetlands would be 1.34 acres, with 0.15 acre palustrine emergent wetland (PEM) and 1.19 acres palustrine forested wetland (PFO) (see **Appendix B**). SHA evaluated all avoidance options, such as reduced typical sections and alignment shifts, and found that they would not fully address the Purpose and Need for the project or would result in greater impacts to other sensitive features. They would not provide capacity in support of anticipated increases in residential and commercial traffic in Anne Arundel County, an element of the Purpose and Need. In addition to not fully addressing the Purpose and Need, the avoidance options would not correct the existing substandard deficiencies on MD 175 including the lack of sidewalks and other pedestrian facilities. The lack of sidewalks is inconsistent with the ADA standards in terms of logical connections.

As this project progresses toward final design, additional avoidance and minimization measures will be evaluated and implemented for any impacted wetlands and waterways. Additional minimization measures could include the use of steeper roadway embankments, perpendicular crossings for waterways, and minor alignment adjustments.

Wetland Finding. Pursuant to Executive Order 11990, efforts were made to avoid and minimize harm to wetlands in the project corridor. As previously discussed, there are no practicable alternatives that would completely avoid construction in wetlands and still satisfy the project's Purpose and Need. The Preferred Alternative incorporates efforts to reduce the amount of affected wetland areas and is the least environmentally damaging practicable alternative. The COE has concurred with the Preferred Alternative and Conceptual Mitigation package.

Streams. Approximately 730 linear feet of perennials streams will be impacted by the project. In addition, 215 linear feet of natural ephemeral channels are anticipated to be impacted. In general, the stream impacts that would result from the Preferred Alternative are due to pipe and culvert extensions and grading for proposed fill slopes. New ditches will be cut where a proposed fill slope will impact an existing ditch.

Several avoidance and minimization measures were included to reduce impacts to waterways, including designing perpendicular crossings to minimize stream realignment needs, and utilizing 2:1 or steeper slopes (using geotextiles to mechanically stabilize the slopes) in select areas of roadway embankments to reduce fill impacts.

The Maryland Department of Natural Resources (DNR) has documented anadromous fish spawning activity in the lower reaches of Deep Run and Stony Run. Aquatic resources and water

quality would be protected by the Use I in-stream work restriction (work prohibition from March 15th through June 15th, inclusive, during any year), proper application of an approved Erosion and Sediment Control Plan, and other BMPs that meet the *2000 Maryland Stormwater Design Manual* requirements.

Aquatic Resources Mitigation

The goal of wetland and stream mitigation is to replace, preserve, and enhance functions within the same watershed that were lost due to impacts associated with the project. The primary functions of the proposed impacted wetlands include groundwater recharge/discharge, flood flow attenuation, fish and shellfish habitat, sediment/toxicant reduction, nutrient removal, sediment stabilization, and wildlife habitat.

As shown in **Tables 5** and **6**, up to 2.53 acres of wetland mitigation and 730 linear feet of stream mitigation would be required to compensate for approximately 1.34 acres and 730 linear feet of unavoidable wetland and stream impacts associated with the Preferred Alternative. Mitigation is not required for the 215 linear feet of impact to ephemeral channels. With the exception of wetland W4, located adjacent to southbound MD 175 and opposite Race Road, all the impacted wetlands are small, isolated systems. The amount of required mitigation is based on wetland replacement ratios stipulated in the Maryland Compensatory Mitigation Guidance developed by the Interagency Mitigation Task Force and Code of Maryland Regulations (COMAR).

Table 5. Preferred Alternative – Wetland Impacts and Compensatory Mitigation

	Wetland Type	
	Forested	**Emergent**
Wetland ID	W1, W3, W4, W9	W20
Impact (acres)	1.19	0.15
Mitigation Ratio	2:1	1:1
Mitigation Required (acres)	2.38	0.15
Total (acres)	**2.53**	

Table 6. Preferred Alternative – Stream Impacts and Compensatory Mitigation

	Stream Type
	Perennial
Impact (linear feet)	730
Mitigation Ratio	1:1
Mitigation Required (linear feet)	730

SHA has identified three potential wetland and stream mitigation sites through coordination with the agencies in August 2009 (see **Appendix H**). Further coordination with the regulatory agencies is required before a final decision is made on any of the sites. SHA has also agreed to continue researching other potential sites within the Patuxent River Watershed that will satisfy and aggregate the mitigation needs for MD 175 and other future SHA projects in the vicinity.

Piera Site. The Piera Site is located within the Patuxent River Watershed in Davidsonville, Anne Arundel County. This site is bordered by Rossback Road to the north, US 50 to the south and Patuxent River Road to the west. The site currently consists of a commercial turf field with a forested area to the east, which contains an irrigation pond. The site is located adjacent to a DNR Green Infrastructure hub.

Based on future soil profiles and piezometer results, the mitigation approach would be to excavate to the elevation sufficient to support wetland hydrology similar to that in the adjacent forested wetland. Stormwater runoff from US 50 could be treated at the site, which would also provide a source of hydrology for the created wetland. The site has the potential to provide approximately three acres of wetland creation/mitigation on the east side of the property adjacent to the forested area and irrigation pond. There is also potential for preservation or enhancement credits within a forested wetland area located east of the irrigation pond that would allow SHA to achieve the needed mitigation acreage.

Meyers Site. The Meyers Site is located within the Patuxent River Watershed at 1416 Meyers Station Road in Odenton, Anne Arundel County. The site currently consists of fallow field with an existing farm pond and a stream that bisects the pasture from north to south. Forested areas occur to the north and south of the open field. The upper portion of the site is located within a DNR Green Infrastructure gap. Additionally, the stream within the open field is a Conservation Reserve Enhancement Program (CREP) targeted stream segment. Hunting is currently permitted on-site.

Based on future soil profiles and piezometer results, the mitigation approach would be to excavate in pastures to an elevation sufficient to support wetland hydrology and enlarge the existing water features. The site has the potential to provide approximately two to three acres of wetland creation/mitigation along the northern portion of the property on either side of the stream. In order to provide the necessary hydrology the existing stream could be re-routed through the created wet area and re-connected at a downstream location. Re-routing the stream could also satisfy the stream mitigation needs.

PR-387. In November 2010, SHA decided to include an additional location to the list of potential mitigation sites (see **Appendix G**). The third is known as PR-387 (Whites Landing Road/Perrie Farm) and is located in southern Prince George's County. Site PR-387 is adjacent to the Patuxent River to the east and Full Mill Branch to the south. At the request of MDE, COE and US Fish and Wildlife Service (FWS), SHA installed groundwater monitoring wells to determine viability. The first year of monitoring was completed in 2009. The second year of monitoring has been completed and, based upon the results of both years of monitoring, it is anticipated that the site could provide approximately nine to 13 acres of wetland creation. It is also anticipated that the site could provide approximately 3,000 linear feet of riparian plantings. Since Site PR-387 potentially offers more mitigation than is required for the MD 175 Project, the additional acreage could be applied to other SHA projects in the area.

Based on preliminary estimates, these sites may provide the desired mitigation requirements for the impacts of the Preferred Alternative. Additional investigations at these sites will determine if the necessary hydrology and soils are present to support the wetland mitigation. SHA will continue to investigate additional locations where wetland/stream mitigation could occur in the event that either the Piera, Meyers or PR-387 sites are determined inadequate. Following these additional investigations, further consultation with MDE, COE and FWS will determine which site, or sites, best meets the needs of the MD 175 Project Planning Study mitigation requirements. These proposed sites are subject to change based on additional data collection, site availability and costs once design funding becomes available. Following final site selection, the next step in the process will be to continue discussions with the property owners to determine willingness to sell or place an easement on their properties.

Floodplains

The proposed action would comply with Executive Order 11988; Floodplain Management, and 23 CFR 650, Subpart A. For transportation projects, the U.S. Department of Transportation (DOT) Order 5650.0 entitled Floodplain Management and Protection prescribes policies and procedures for ensuring that proper consideration is given to the avoidance and mitigation of floodplain impacts. Federal Emergency Management Agency (FEMA) flood mapping for Anne Arundel County indicates that the Preferred Alternative would impact 0.01 acre of regulated 100-year floodplains associated with an unnamed tributary at the eastern limit of the project area near West County Library. Floodplain avoidance was not possible under any of the build alternatives due to the existing roadway configuration. The majority of floodplain encroachments are anticipated to

occur from the replacement or modification of existing bridges and culverts. No major longitudinal floodplain encroachments will occur.

A preliminary hydrologic analysis was initiated for this project and will continue during the design phase to ensure that the proposed action would not affect upstream storage capacity or down stream flow rates. Measures to reduce floodplain impacts would be considered during the design phase of the project.

Vegetation and Wildlife

The Preferred Alternative would impact approximately 27.1 acres of woodland, primarily along the edges of existing roadways (Annapolis Road), as opposed to forest interior or other undisturbed habitats. Of 137 specimen trees identified (trees ≥ 24" diameter at 4.5 feet above the ground, or a diameter 75% or more of the diameter of the current state champion tree) within or adjacent to the proposed right-of-way for the project, the Preferred Alternative would impact approximately 45 to 60 specimen trees. In design, further effort can be made in avoiding direct impacts to specimen trees by adjustment of the proposed alignment. Such adjustments would have to be fully evaluated to determine the potential impacts on other sensitive resources.

On November 10, 2010, SHA, EPA, USFWS, COE, MDE, DNR and Fort Meade conducted a field review of major woodland impact areas related to the Preferred Alternative. Following visits to several of the proposed SWM facilities, SHA agreed to investigate additional design and reconfiguration options that would minimize woodland impacts to higher value systems. These investigations are ongoing and will be incorporated into final design plans. See **Appendix G** for a copy of the meeting minutes.

Mitigation would require replacement on an acre-for-acre, one-to-one basis within a year or two growing seasons of project completion, in accordance with Maryland Reforestation Law. Reforestation sites would be identified in the design phase of the project and within the same county or watershed would be given the first priority. If local reforestation sites cannot be identified, SHA would deposit $4,356 per cleared acre into the Reforestation Fund. To further minimize impacts of the Preferred Alternative on woodlands, SHA would cut or clear only the minimum number of trees and other woody plants that are necessary and consistent with sound design practices, and shall make every reasonable effort to minimize the cutting or clearing of trees and other woody plants. For woodland impacts on Fort Meade property, SHA will be required to mitigate those impacts on Fort

Meade property. Additionally, SHA will be required to pay fair market value that is received from those felled trees into the Department of Defense Forestry Fund.

Rare, Threatened and Endangered Species

DNR Wildlife and Heritage Service and the FWS were contacted to determine if any rare, threatened or endangered species are located within the study area. Three State rare, threatened, or endangered plant species are known to occur in the vicinity of the study area; *Helonias bullata* (swamp pink, federally threatened and state endangered), *Lupinus perennis* (wild lupine, state threatened), *Panicum leucothrix* (roughish panic grass, state unknown). In addition, one state threatened fish *Etheostoma vitreum* (glassy darter) is known to occur near the project limits, in the Little Patuxent River.

Due to the maintained and mown nature of most edge habitats along the project corridor it is doubtful that the habitats for either wild lupine or roughish panic grass exist. However, habitat for swamp pink *(Helonias bullata)* was identified within the wetland adjacent to MD 175 and the library entrance (wetland W1). As documented in the project's Natural Environmental Technical Report (NETR 2007), four field surveys were conducted for this species in October through November 2007. No specimen of swamp pink was found during the surveys, which covered the entirety of the wetland. BMPs will be utilized during construction and in SWM planning and implementation to protect the glassy darter. Stream habitat protection measures for this project will focus on minimization of sedimentation and water quality impacts to downstream areas. Consequently, the Preferred Alternative would not result in direct impacts to rare, threatened, or endangered plants.

Unique and Sensitive Areas

The majority of the land adjacent to existing MD 175 has been developed with most of the greenspaces slated for development. One area of extensive wetlands near the West County Library has been protected by Anne Arundel County. This natural wetland area has the potential to harbor state and federally listed plant species such as the federally threatened and state endangered swamp pink. Impacts to this resource are not anticipated because the habitat for this species is not located within the project's limits-of-disturbance. This natural wetland area also contains some of the largest specimen trees located along the project corridor, including a potential state champion river birch (*Betula nigra*).

Green Infrastructure

The GreenPrint Program (2001) was established by the Maryland General Assembly in an effort to "preserve the most ecologically valuable natural lands in Maryland" (Maryland's Green Infrastructure Assessment, 2003). These areas have been identified in DNR's Green Infrastructure data set, which was created using satellite imagery, road and stream locations and biological data. Identified areas include unfragmented natural areas, called "hubs", which include large blocks of contiguous interior forest and large wetland complexes, linear stretches of land, called "corridors," such as stream valleys that allow animals and seeds to move between "hubs" and areas of disconnect between the "hubs" and "corridors", or "gaps."

SHA, in coordination with County planners and the regulatory agencies, would continue to use green infrastructure data in the planning and design phases to locate areas of land that could be targeted for protection or restoration to help ensure habitat for Maryland's plants and wildlife, as well as to promote a healthier environment including improved outdoor recreation, clean drinking water, and erosion prevention. At the time Maryland's Green Infrastructure Assessment (2003) was published, it was determined that 74 percent of Maryland's Green Infrastructure is unprotected; and 13 percent of hubs, and less than one percent of corridors were in areas managed primarily for natural values.

The area in the immediate vicinity of the Preferred Alternative is comprised mostly of corridors and gaps. The main hub within the study area is associated with Severn Run, located east of MD 175, and runs from south of MD 713 (Ridge Road) to just south of MD 174 (Reece Road). This hub connects two corridors; the corridor to the northwest of the hub is associated with Dorsey Run, Midway Branch and Franklin Branch, and the corridor to the southeast of the hub is associated with Severn Run. Gaps in both corridors are scattered throughout. The majority of gaps are located within areas of existing development.

The potential wetland mitigation site, Piera Site, is located adjacent to a green infrastructure hub, the upper portion of the Meyers Site is located within a green infrastructure gap, and the PR-387 Site is located adjacent to a green infrastructure gap and corridor. Green infrastructure would also be utilized in the design phase to identify gaps and areas of maximum ecological benefit for tree mitigation.

The current design of MD 175 provides a choke point for wildlife passage at the intersection of MD 175 at MD 295, MD 32 and MD 170. Due to fencing along most of Fort Meade, wildlife has

restricted crossing opportunities. Areas that provide opportunities for improving wildlife passage occur near the eastern terminus of the project. Wildlife passage options will be reviewed during the final design phase of the Preferred Alternative.

4. Air Quality

A project-level air quality analysis was conducted in accordance with the EPA, FHWA, and SHA guidelines. Refer to the *MD 175 (Annapolis Road) from MD 295 (Baltimore/Washington Parkway) to MD 170 (Telegraph Road), Environmental Assessment/Section 4(f) Evaluation (June 2008)* and *Air Quality Analysis Final Report, (SHA-April 2008)* for details on the technical analysis and its components.

Carbon Monoxide (CO)

Carbon monoxide (CO) predictions were analyzed as the accepted indicator for vehicle induced air pollution. Air quality analyses utilized the MOBILE6.2 emissions factor model and CAL3QHC dispersion model to predict worst-case CO concentrations for the existing year (2004 data), No-Build (2030), and the worst-case build alternative (Alternative 6) (2030) retained for detailed study. The analysis indicated that the eight-hour concentration of CO will not exceed the National Ambient Air Quality Standards (NAAQS) of 9.0 ppm (parts per million) at any sites within the project area for any of the design alternatives, including the existing facility and No-Build Alternative. The maximum calculated one-hour and eight-hour CO concentrations are as follows:

- Existing at MD 175/Reece Road: One hour = 12.5 ppm, eight-hour = 5.2 ppm
- Existing at MD 175/Morgan Road: One hour = 12.1 ppm, eight-hour = 4.9 ppm
- Existing at MD 175/MD 170: One hour = 13.4 ppm, eight-hour = 5.8 ppm
- No-Build at MD 175/Reece Road: One hour = 11.4 ppm, eight-hour = 4.4 ppm
- No-Build at MD 175/Morgan Road: One hour = 11.5 ppm, eight-hour = 4.5 ppm
- No-Build at MD 175/MD 170: One hour = 11.1 ppm, eight-hour = 4.2 ppm
- Preferred Alternative at MD 175/Reece Rd: One hour = 11.9 ppm, eight-hour = 4.9 ppm
- Preferred Alternative at MD 175/Morgan Rd: One hour = 11.2 ppm, eight-hour = 4.3 ppm
- Preferred Alternative at MD 175/MD 170: One hour = 11.2 ppm, eight-hour = 4.3 ppm

Three hot-spot intersections (MD 175 at: Reece Road, Morgan Road, and MD 170) were analyzed using receptors selected to represent areas of possible human use at or near the facility, as well as sites in close proximity to intersections that produce worst-case CO concentration levels. Additional receptors were placed along Reece Road into Fort Meade to help determine the emissions

in the guarded entrance area, where traffic queues for security before entering. Results from both the LOS analysis and the CAL3QHC dispersion modeling analysis indicate that the proposed changes to MD 175 could be built and operated such that traffic-related emissions at the nearby intersections would not cause an exceedance of the CO NAAQS. Based on these model runs, the CO (one-hour and eight-hour) modeled concentrations along the studied MD 175 corridor are below the NAAQS and all areas are considered to be in compliance.

$PM_{2.5}$

The analysis of fine particulate matter ($PM_{2.5}$) was conducted as part of the air quality technical analysis for the MD 175 project, located in Anne Arundel County, Maryland. The County is listed as not in "non-attainment" with the NAAQS for carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead. Anne Arundel County is listed as "moderate non-attainment" relative to the NAAQS for eight-hour ozone and "non-attainment" relative to $PM_{2.5}$ (particulate matter 2.5 microns or smaller in size) and are therefore subject to conformity with the State Implementation Plan (SIP). Conformity to the SIP is determined through regional air quality analyses of the Transportation Improvement Plan (TIP), typically performed through the local Metropolitan Planning Organization. This project demonstrates conformity with the SIP, as it was included as part of Maryland's approved 2011-2014 TIP. Based on review and analysis of the proposed MD 175 Project Planning Study, it has been determined that the Preferred Alternative meets the requirements of the Clean Air Act and 40 CFR 93.109. These requirements are met for particulate matter without a project-level hot-spot analysis since the project has ***not been found to be a project of air quality concern*** as defined under 40 CFR 93.123(b)(1).

By email dated March 1, 2011, the $PM_{2.5}$ conformity determination was approved by SHA and was forwarded to FHWA, EPA, MDE and Baltimore Metropolitan Council (BMC) for Interagency Consultation. The respondents concurred with the conclusion that the MD 175 Project **is not a project of air quality concern under 40 CFR 93.123(b)(1).** Since the project meets the Clean Air Act (CAA) and 40 CFR 93.109 requirements, the project will not cause or contribute to a new violation of the $PM_{2.5}$ National Ambient Air Quality Standards, or increase the frequency or severity of a violation.

Mobile Source Air Toxics Analysis (MSATs)

FHWA *Guidance on Air Toxic Analysis in National Environmental Policy Act (NEPA) Documents* requires analysis of Mobile Source Air Toxics (MSAT) under specific conditions. The

Preferred Alternative will not result in any meaningful changes in traffic volumes, vehicle mix, or any other factor that would cause an increase in emissions impacts. As such, FHWA has determined that this project will generate minimal air quality impacts for the CAA criteria pollutants, and has not been linked with any special MSAT concerns. In summation, when a highway is widened and, as a result, moves closer to receptors, the localized level of MSAT emissions for the Preferred Alternative could be higher relative to the No-Build Alternative, but this could be offset due to increases in speeds and reductions in congestion (which are associated with lower MSAT emissions). Also, MSATs will be lower in other locations when traffic shifts away from them. Furthermore, at both the project location and regionally, MSAT concentrations will decrease in future years due to EPA's vehicle emission and fuel regulations.

Construction Related Emissions

The Maryland SHA has established "Specifics for Construction and Materials" as procedures to be followed by contractors involved in construction activities in an effort to minimize impacts to ambient air quality through the generation of fugitive dust. The Maryland Air and Radiation Management Administration (ARMA) was consulted, and determined that these specifications would satisfy the requirements of the *Regulations Governing the Control of Air Pollution in the State of Maryland*. Therefore, during the construction period, all appropriate measures (Code of Maryland regulations 26.11.06.03D) will be incorporated to minimize the impact of the proposed transportation improvements on the air quality of the area. Specifically, the application of water during demolition, land clearing, grading, and construction operations will work to minimize fugitive dust. Also, when in motion, all open body trucks for transporting materials should be covered and excavated material should be removed from the project site promptly.

Construction-related emissions for the project were considered to be temporary since construction-related emissions will last less than five years at any one site, meeting the criterion of section 93.123 (c)(5). Therefore, construction emissions are not required to be included in the CO 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 Baltimore, MD $PM_{2.5}$ non-attainment 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.

Summary

The project area falls under the jurisdiction of the Baltimore Regional Transportation Board (BRTB). The BRTP is the federally recognized Metropolitan Planning Organization for transportation planning in the Baltimore Region. Members of the BMC Board serve on the BRTB, and the BMC provides technical and staff support to the BRTB. The BRTB approved the 2008-2012 TIP on November 27, 2007 and the 2004 Baltimore Regional Transportation Plan on August 22, 2006, and has concluded that the region's transportation plan and program are in conformity with the SIP relative to air quality goals. Therefore, the MD 175 project has been included in a conforming plan and program in accordance with 40 CFR 93.115. The current conformity determination is consistent with the final conformity rule found in 40 CFR Parts 51 and 93.

5. Climate

Greenhouse gases are trace gases that trap heat in the earth's atmosphere. Naturally occurring greenhouse gases include water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and ozone. Other greenhouse gases such as chlorofluorocarbons, hydrofluorocarbons (HFCs), and perfluorocarbons, are created and emitted solely through human activities. The principal greenhouse gases entering the atmosphere because of human activities are CO_2, CH_4, N_2O, and fluorinated gases.

As a sector, transportation is a significant source of greenhouse gases. In 2006, transportation sources accounted for approximately one quarter of the total greenhouse gas emissions in the United States. Any process that burns gasoline and diesel fuel releases CO_2 into the air. CH_4 and N_2O emissions also result from fuel combustion, while HFC emissions are associated with motor vehicle air conditioners.

In contrast with trends in other air emissions, greenhouse gas emissions from transportation continue to rise, in large part because travel growth has outpaced improvements in vehicle energy efficiency. Transportation sector emissions have grown at an average rate of about two percent annually since 1990. The sector's emissions have grown considerably faster than those of other sectors, which averaged about 0.8 percent annually during the same period (U.S. DOT Center for Climate Change and Environmental Forecasting, 2008).

To date, no national standards have been established regarding greenhouse gases, nor has EPA established criteria or thresholds for greenhouse gas emissions. On April 2, 2007, the Supreme Court issued a decision in *Massachusetts et al. v. Environmental Protection Agency et al.* 549 U.S.

497 (2007) that the EPA does have authority under the CAA to establish motor vehicle emissions standards for CO_2 emissions. In response to the Court's decision, EPA issued a proposed endangerment and cause or contribute finding for six greenhouse gases under Section 202(a) of the CAA on April 17, 2009. The proposed endangerment finding states that current and projected greenhouse gas concentrations in the atmosphere threaten the public health and welfare. The proposed cause or contribute finding states that certain greenhouse gas emissions from motor vehicles contribute to atmospheric concentrations of greenhouse gases and to climate change. EPA's findings were finalized on December 7, 2009 and are the first steps toward the potential regulation of greenhouse gas emissions under the CAA. However, the findings do not have any direct implications on requirements for developing transportation projects at this time.

On February 18, 2010, the Council on Environmental Quality (CEQ) issued draft guidance for public consideration and comment on the ways in which Federal agencies can consider the effects of greenhouse gas emissions and climate change in their evaluation of proposals for Federal actions under NEPA. At this time, the draft guidance does not have any direct implications on developing transportation projects because it is in draft form and potentially subject to substantial change.

It is not useful or informative at this point to consider greenhouse gas emissions as part of the MD 175 Project Planning Study. Climate change is inherently a global issue. The sources of greenhouse gas emissions that scientists believe are causing the current change in climate are from all over the world, and climate change does not easily lend itself to an analysis at a local level. Further, nothing in NEPA law explicitly requires an analysis of greenhouse gases at the project level and no national standards have been established.

It is also not useful or informative to make greenhouse gas emission comparisons among the different EA alternatives. Relative to the global scope of the problem of climate change, any difference in greenhouse gas emissions between the alternatives are not likely to be significant. The magnitude of the changes in climate caused by these scenarios and any corresponding impacts on environmental resource would be too small to measure, as current analytical tools are not sophisticated enough to accurately reflect such minute differences. Attributing any environmental consequence of the differences in emissions between the alternatives or assessing how each contributes to impacts occurring around the world is not possible in a meaningful way. As a result, the comparison of greenhouse gas emissions resulting from each analysis scenario will not provide information that will be helpful to the public or relevant to project decision-making.

Greenhouse gases are quantitatively and qualitatively different from other motor vehicle emissions, and their magnitude and breadth appear to require a different approach to address their potential climate impacts. First, pollutant emissions are of concern, and thus regulated, in individual metropolitan or smaller areas. The climate impacts of $_{CO2}$ emissions, on the other hand, are global in nature. From a NEPA perspective, it is analytically problematic to conduct a project level cumulative effects analysis of greenhouse gas emissions on a global-scale problem. Secondly, criteria pollutant emissions last in the atmosphere for perhaps months; CO_2 emissions remain in the atmosphere far longer – over 100 years – and therefore require a much more sustained, intergenerational effort. Finally, due to the interactions between elements of the transportation system as a whole, project-level emissions analyses would be less informative than ones conducted at regional, state, or national levels. Because of these concerns, the FHWA concludes that CO_2 emissions cannot be usefully evaluated in the same way as other vehicle emissions are addressed.

The NEPA process is meant to concentrate on the analyses of issues that can be truly meaningful to the consideration of project alternatives, rather than simply "amassing" data. In the absence of a regional or national framework for considering the implications of a project-level greenhouse gas analysis, such an analysis would not inform project decision-making, while adding to the administrative burden.

6. Noise

Based on a project-level noise technical analysis, eight of the 21 Noise Sensitive Areas (NSAs) would experience build year (2030) noise levels equal to or exceeding FHWA/SHA impact criteria for the Preferred Alternative, and therefore warrant noise abatement consideration. Both the 66 dBA absolute noise level impact and substantial increase over existing noise level (i.e., 10 decibels [dBA] or more) impact criteria were used in this analysis. Alternative 3, which shifts the travel lanes closer to the residential areas than any of the other alternatives, was identified for analysis during the ARDS stage to determine greatest potential noise impact on the residential communities within the study area.

The feasibility of abatement was considered for NSAs 1, 2, 4, 7, 12, 16, 17 and 20. Local access constraints, which would require barrier segmentation, would preclude consideration of noise abatement for NSAs 1, 7, 17 and 20 and the reasonableness criteria (build noise levels are less than 3dBA than no-build levels) cannot be satisfied for NSA 2. During the ARDS stage, mitigation in the form of barriers at NSAs 4 and 12 was found to be both feasible and reasonable for Alternative 3.

NSA 4 is located north of MD 175, from east of the MD 175 / MD 295 interchange to just east of Race Track Road; NSA 12 is located north of MD 175, from 20½ Street to Jackson Road (see ***EA Appendix D*** for NSA boundary locations). Two receivers within NSA 16 were impacted, but mitigation was not analyzed because the Preferred Alternative would displace both of the residences where the receivers were placed. Please refer to the MD 175 *Technical Noise Report* (SHA 2008) for a detailed discussion of warranted, feasible, and reasonable mitigation analysis.

Following the identification of the Preferred Alternative, SHA revisited the previous analysis completed during ARDS to determine the need for revisions. SHA also adjusted the analysis based on an updated $34/square foot construction cost estimate. In the vicinity of NSA 4, the Alternative 3 and Preferred Alternative alignments are essentially the same. Therefore, it was assumed that the same traffic volumes would yield the same results for NSA 4 as were found in the 2008 analysis. However, once the updated cost estimate was applied to the reasonableness analysis, NSA 4 no longer qualified for noise abatement because the cost per residence increased to $56,856 (see **Table 7**).

Table 7. NSA 4 – Barrier Analysis Summary

Length (Feet)	608	Impacted and Benefited	2
Height (Feet)	8-12	Not Impacted, but Benefited	2
Area (Square Feet)	6,689	Total Benefited	4
Insertion Loss (dBA)	7	Cost Per Benefited Residence	$56,856
Total Cost	$227,426		

NSA 12 was reanalyzed with the same basic Traffic Noise Model (TNM) setup and traffic as in the 2008 analysis. In the vicinity of NSA 12, the Preferred Alternative alignment is located approximately 18 feet further away from the receivers as Alternative 3. Under the Preferred Alternative, three receivers (M49, M 50 & M 100) that previously met the 66dBA threshold will only reach a 65dBA threshold (see **Table 8**). Therefore, as a result of the alignment shift, NSA 12 is no longer considered to be impacted by noise under the Preferred Alternative. Noise abatement is no longer warranted for NSAs 4 and 12.

In final design, noise impacts as a result of the Preferred Alternative will be evaluated for consistency with the Final Rule 23 CFR 772 – Procedures for Abatement of Highway Traffic Noise and Construction Noise (Issued July 13, 2010) and the noise analysis findings and recommendations

will be reevaluated for consistency with any subsequent revisions to SHA's Noise Policy (1998) adopted in compliance with the Final Rule. A final decision on noise abatement measures will not be determined until that time. If noise abatement is found to be appropriate in the design phase, SHA will consider alternatives to barriers, such as landscaping and berms. The desires of the property owners will also be considered when making a decision to proceed with noise mitigation.

Table 8. NSA 12- Comparison Between 2007 and 2010 Analysis

NSA	Receivers	Previous Noise Analysis No-Build 2030 (dBA)	Previous Noise Analysis Build 2030 (dBA)	Preferred Alternative Current Reanalysis	Difference: Previous Build 2030 versus Current
12	M44	56	58	57	-1
	M45	52	53	55	2
	M46	57	58	57	-1
	M47	61	61	61	0
	M48	62	62	62	0
	M49	65	66	65	-1
	M50	63	66	65	-1
	M51	56	58	56	-2
	M52	54	56	56	0
	M53	50	51	53	2
	M54	50	51	53	2
	R02	56	58	56	-2
	R18	62	64	63	-1
	M97	62	64	63	-1
	M98	64	65	64	-1
	M99	62	63	62	-1
	M100	64	66	65	-1

7. Hazardous Materials

To identify and account for municipal, industrial, and residual waste materials within the study area, an Initial Site Assessment (ISA) was conducted for the study area. Please refer to the *Initial Site Assessment MD 175 Improvements* (SHA 2007) for details regarding the ISA. Of the 80 sites within and adjacent to the study area identified as having potential hazardous waste concerns, 31 were recommended for a Preliminary Site Investigation (PSI) that would be conducted during the design phase of the project. These properties include Fort Meade, active and former gasoline stations, active and former dry cleaners, and active and former automobile service stations. For these 31 properties requiring a PSI, a PSI work plan should be developed that outlines a strategy for determining the extent of contamination. Geophysical studies including soil borings, installation of monitoring wells, and digging of test pits may be required.

PSIs will be conducted prior to right-of-way acquisition of properties with a high potential for concern unless they can be classified otherwise prior to construction. If, during construction, inactive water wells or underground storage tank (UST)s decommissioned in-place are encountered, they will be properly closed and removed. Inactive water wells will be closed in accordance with state and local requirements, so that they do not provide a conduit for possible contamination of groundwater. If a decommissioned UST is encountered at any point, it will be decommissioned by removal and confirmation soil sampling will be conducted to determine if there has been a release of petroleum. If site buildings are to be demolished or renovated, asbestos and lead-based paint surveys will be conducted by a qualified contractor.

8. Indirect and Cumulative Effects Analysis (ICE)

The ICE analysis documented in the MD 175 EA concluded that no major indirect or cumulative effects associated with socio-economic, cultural and natural resources are anticipated for the proposed MD 175 project. The MD 175 project is consistent with Maryland's Smart Growth legislation and the objectives outlined in the SHA Consolidated Transportation Plan (CTP). Future development and growth within the ICE boundary (see **Figure 5**) would occur according to six master plans: The County Plan, the 2003 Odenton Small Area Plan, the OTCMP, the The Roadway Plan, the 2004 Jessup/Maryland City Small Area Plan and the 2002 Severn Small Area Plan. No planned public or private development projects are dependent upon improvements associated with the MD 175 project.

Indirect Effects

Indirect impacts to community resources under the Preferred Alternative may be both beneficial and adverse. Beneficial effects may include decreased travel time to major roadways as well as the creation of more travel options for commuters. Increased traffic along MD 175 is a potential adverse indirect effect. The population may indirectly increase (by attracting additional workers and residents to the ICE study area) from the creation of new job opportunities associated with increased commercial development, in conjunction with additional housing opportunities, independent of the MD 175 project. Indirect effects to employment should result from improved access to and from MD 295 allowing better access for employees. Indirect effects to parks associated with the Preferred Alternative include the potential for increased use due to improved vehicle, pedestrian, and bicycle access. There may be indirect impacts to historical resources associated with the Preferred Alternative that include visual impacts. Indirect impacts to groundwater would

primarily be associated with increases in impervious surface associated with MD 175 Preferred Alternative and other projects in the ICE boundary. The increase in impervious surface would increase runoff carrying vehicle-generated pollutants, which could potentially enter groundwater resources. Surface water and water quality may be indirectly affected by contaminated groundwater inflow into streambeds of surface waters. Indirect impacts to wetlands may occur as a result of roadway runoff, sedimentation, and alterations to hydrology, thereby potentially affecting the extent and quality of available wetland habitat. There may be indirect impacts to forests as newly created forest edges experience drier soil conditions allowing invasive species to become established as well as the loss of forest interior habitat. Rare, threatened, and endangered species habitat outside of the project area, but within the ICE boundary, could be impacted by indirect effects that alter the quality of the existing habitat.

Cumulative Effects

In general, resources within the ICE boundary have experienced cumulative effects over the past few decades from urban development. It is expected that these trends would continue as additional growth occurs. Potential cumulative effects to the community would include a potential loss of character and a small town feel as well as an increase in demand for community services including schools and health care facilities. There is also likely to be direct and cumulative impacts to communities from noise related to this project. Future planned residential and commercial development independent of the MD 175 project is likely to have cumulative effects of increasing population and employment within the ICE study area. Cumulative impacts to parklands and historic sites may include increased development pressure.

Anticipated cumulative effects for groundwater include reduction of base flow to streams within the recharge areas. Cumulative impacts to surface water include increased runoff, erosion and flooding potentially leading to degradation of water quality and a decrease in ecological health. As development pressure rises, there may be additional cumulative impacts to wetlands such as alterations to local hydrology. Cumulative impacts to woodlands may include increased forest fragmentation and loss of forest interior habitat. There may also be cumulative impacts to the habitats of rare, threatened, and endangered species as development pressure increases.

Long-term global climate change is a growing concern among the scientific community, who argue that human-induced increases in atmospheric greenhouse gases (GHGs) are the predominant

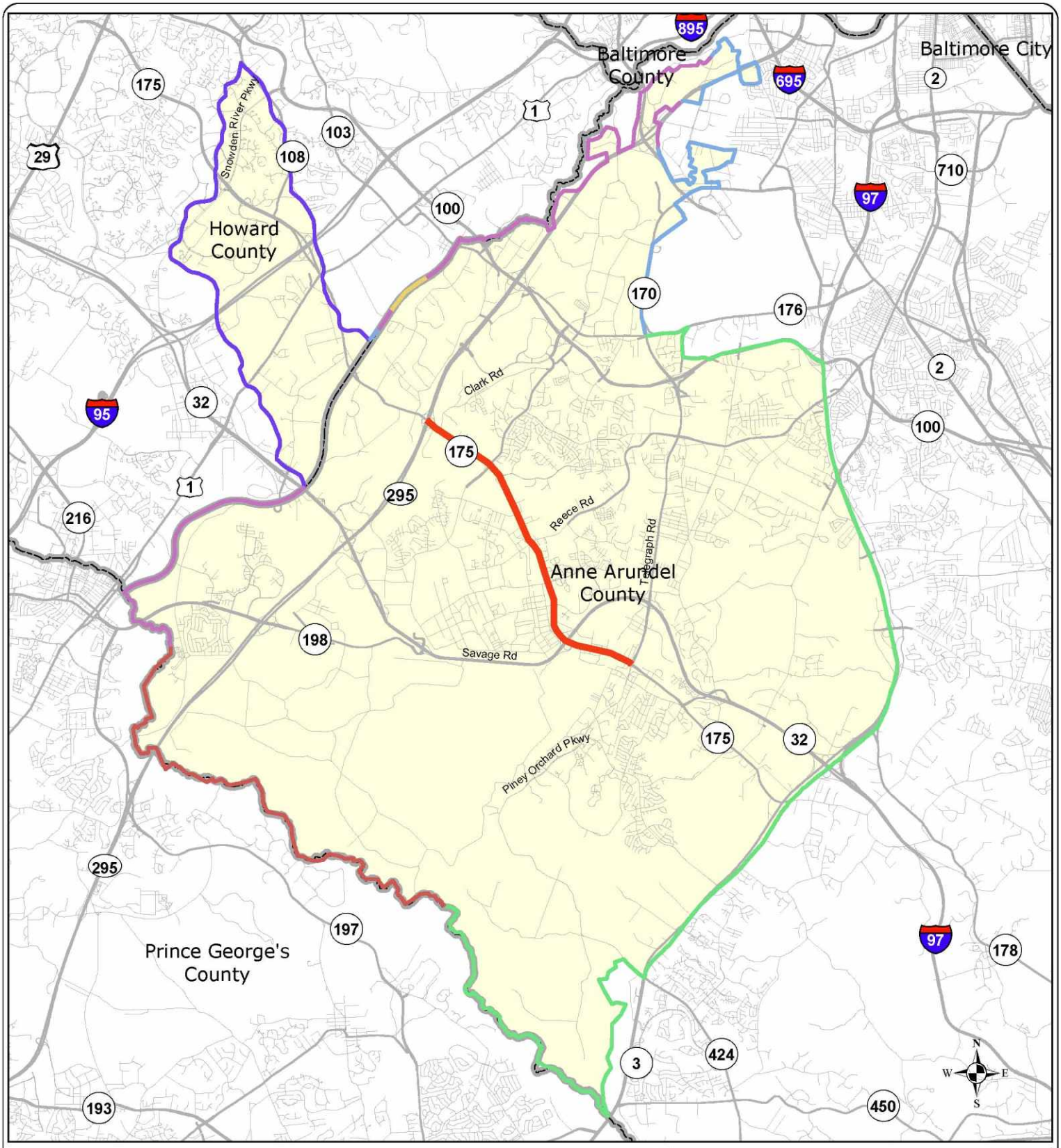
cause of global temperature increases. Many outlets have identified that the combustion of fossil fuels generates the highest volume of GHG emissions.

Mitigation

Avoidance and minimization strategies to reduce direct impacts to environmental resources were incorporated into the MD 175 Preferred Alternative and will continue to be included in future design efforts. Mitigation is required for any direct impacts that remain following avoidance and minimization efforts. SHA has developed conceptual mitigation plans for any unavoidable impacts and coordinated efforts with the appropriate regulatory agencies for the Preferred Alternative.

Impacts to historic resources are subject to Section 106 compliance, requiring consultation on project effects to historic properties. Consultation often results in specific mitigation, such as preservation or documentation of affected historic resources, and reducing the cumulative effect of the project. On December 21, 2010, MHT concurred with SHA's adverse effect determination for the NRHP eligible property, Trusty Friend (see **Appendix G**). The Advisory Council on Historic Preservation (ACHP) was notified of the adverse effect determination, and the ACHP declined participation. The views of the public regarding this undertaking have been considered through a Public Hearing held on June 26, 2008. **Appendix F** contains a MOA between SHA and the MD SHPO (i.e., MHT) documenting appropriate mitigation aimed at reducing the cumulative effects of the MD 175 project on the Trusty Friend historic property. Consulting parties identified with the MOA include the owners of Trusty Friend historic property, Fort Meade, NPS, the Jessup Improvement Association, the Odenton Heritage Society, and the Anne Arundel County Office of Planning and Zoning and Office of Environmental and Cultural Resources. See Chapter III and **Appendix F** for specific mitigation measures for impacts to Trusty Friend historic property, and Chapter III for additional mitigation for effects to other historic resources.

State and county land development plans will shape future development and growth within the ICE boundary. Local jurisdictions will develop resource preservation plans with the continued assistance of SHA. Anne Arundel County is ultimately responsible for monitoring and applying growth management strategies and mechanisms that result in development at a pace consistent with roadways and infrastructure. Regulatory agencies and responsible parties are obligated to evaluate mitigation for cumulative effects associated with environmental impacts. Any future development



Legend

Source of ICE boundary

- 2000 Census
- Planning area
- Sewer
- Traffic Zones
- Water
- Watershed

- MD 175 Project Area
- Study Area Boundary
- County boundaries

1 inch equals 2 miles

Figure 5
ICE Boundaries

Maryland Route 175
Study Area

Maryland State Highway Administration

Prepared December 2007

Source: Maryland Office of Planning, 2003. Maryland State Highway Administration, 2006 ; U.S. Department of Commerce, Bureau of the Census,

that occurs in the 2030 time frame will be required to comply with the numerous federal, state, and local ordinances in place to protect resources.

Refer to the *MD 175 Indirect and Cumulative Effects Analysis Technical Report* for a more detailed assessment of potential indirect and cumulative effects.

Summary

Indirect and cumulative effects will be minimized through state and federal environmental laws and local environmental and zoning ordinances.

No agency has expressed concerns relative to the significance of the impacts, the ability to mitigate the impacts, or the commitment of SHA to involve them in future coordination efforts during the design phase. In light of the impact analysis presented in this section, as well as in the EA, and the agency agreement with the coordination efforts and decision-making conducted to date, there is no controversy concerning the environmental effects. Therefore, consistent with 40 CFR 1508.27(a), the project will not result in significant environmental impacts.

III. FINAL SECTION 4(F) EVALUATION

A. Introduction

Section 4(f) of the U.S. Department of Transportation of 1966, 49 USC 303(c), requires that the proposed use of land from any publicly-owned public park, recreation area, wildlife and/or waterfowl refuge, or any significant historic site, as part of a federally-funded or approved transportation project is permissible only if there is no feasible and prudent avoidance alternative to the use and if the action includes all possible measures to minimize harm. This Final Section 4(f) Evaluation has been prepared in accordance with 23 CFR Part 774 and 49 USC 303 to assess the likely effects of the Preferred Alternative upon the Section 4(f) resource known as Trusty Friend and evaluate options that avoid or minimize impacts to that resource resulting from the project. After careful consideration of all comments received on the Draft Section 4(f) Evaluation, this Final Section 4(f) Evaluation provides a final determination that feasible and prudent avoidance alternatives to the use do not exist, and that the proposed action includes all possible planning to minimize harm to Section 4(f) resources.

B. Description of the Proposed Action and Purpose and Need

The proposed action (see **Appendix A**) was selected based on the information developed for the planning study and input from regulatory agencies and the public (**see Sections IV and V**). In order to best satisfy the different goals of the corridor, multiple alternatives were combined to create the Preferred Alternative, which consists of Alternative 4 (Modified) from Brock Bridge Road to west of MD 295, Option F at the MD 175/MD 295 interchange, Alternative 6 with the 21 ½ Street Option from MD 295 to MD 32, and Alternative 2A (Enhanced TSM) from MD 32 to MD 170.

MD 175 is included in the 2004 Highway Needs Inventory and has been identified by Anne Arundel County as its top priority transportation project. MD 175 is located just south of BWI Thurgood Marshall Airport, about 20 miles from Baltimore and 30 miles from Washington, DC. MD 175 is a major east-west corridor serving the Fort Meade and OTC. The purpose of the MD 175 Project Planning Study is to improve the existing capacity, traffic operations, intermodal connectivity, and vehicular and pedestrian safety on MD 175, while supporting existing and planned development in the area. The FHWA and SHA are the lead agencies for the project. Cooperating agencies include the COE, EPA, NPS, Fort Meade, and MDE.

Improvements in the study area are needed to address projected operational and safety deficiencies as a result of planned and future development in and around the study area. In addition, this project will serve to accommodate future transportation needs in and around Fort Meade and assist in revitalizing the commercial district in North Odenton. The area around Fort Meade is one of the fastest growing areas of Anne Arundel County. Fort Meade and the NSA combined represent the largest employers in the State of Maryland. Numerous developments including Arundel Mills Mall, growth in the BWI Business District, and growth at Fort Meade have contributed to increased traffic volumes in the area. As a result of the 2005 Base Realignment and Closure (BRAC) recommendations, Fort Meade is expected to grow dramatically. This study investigated a variety of approaches to facilitate the anticipated traffic volumes from planned and future development in and around the study area and attempted to address congestion. Further, this study focused on potential safety hazards and identified improvements that may alleviate the magnitude and severity of future crashes along MD 175.

Alternatives that were retained for detailed study (ARDS) are briefly described below (see Section II of the EA for more detailed descriptions).

- **Alternative 1 – No-Build:** Includes only minor short-term improvements as part of normal maintenance and safety projects.
- **Alternative 2 –** Transportation Systems Management (TSM): A range of spot improvements throughout the corridor to address the most serious concerns at specific locations or segments of roadway.

Each of the MD 175 mainline build alternatives would include widening MD 175, MD 175/MD 295 interchange modifications, Fort Meade access improvement options, and pedestrian and bicycle accommodations.

- **Alternative 3 – Six-Lane Roadway on Existing Centerline:** Widen approximately 5.5 miles of MD 175 between Sellner/Race Road and Telegraph Road/Piney Orchard Parkway (MD 170), and reconstruct MD 175 bridges over MD 295 and MARC/CSX Railroad.
- **Alternative 4 Modified – Four-Lane Divided Roadway West of Reece Road:** Widen 3.0-mile long segment of MD 175, between Brock Bridge Road and MD 174 (Reece Road).

- **Alternative 5 – Five-Lane Roadway w/Center Turn Lane West of Reece Road:** Widen 3.0-mile long segment of MD 175, between Brock Bridge Road and Reece Road.
- **Alternative 6 – Six-Lane Roadway on Shifted Centerline:** Incorporate Alternative 3 improvements with southern and northern alignment shifts, and construct new bridges over MD 295 and over the MARC/CSX Railroad.
    - **Option: 21 ½ Street Shift – Four, Five or Six-Lane Roadway on Shifted Centerline:** Shift alignment south from east of MD 713 (Rockenbach Road) to Reece Road.
- **Alternative 6A – Resource Minimization Alignment:** Incorporate Alternative 6 improvements between Sellner/Race Road and MD 32 with a northern alignment shift along the south side of MD 175, and construct a new bridge over the MARC/CSX Railroad.

MD 175/MD 295 INTERCHANGE OPTIONS

- **Option A2:** Alternative 6 Interchange Option A2 utilizes a mainline shift to the north with a Single Point Urban Interchange (SPUI).
- **Option E:** Alternative 6 Interchange Option E utilizes a northerly shift in the alignment of MD 175 with the full diamond interchange.
- **Option F:** Compatible with Alternative 3, utilizes a partial cloverleaf interchange.
- **Max Blobs Option A:** The proposed outer ramp in the southeast quadrant would provide for vehicles to exit at two points along the ramp. Vehicles destined to Clark/Max Blob's Park Road would exit mid-ramp onto Max Blob's Park Road, and for Clark Road access, travel to the signalized intersection with MD 175. Vehicles destined to MD 175 eastbound and westbound will continue on the relocated interchange ramp to the MD 175/MD 295 signalized intersection.
- **Max Blobs Option B:** The proposed outer ramp in the southeast quadrant would provide for vehicles to exit at two points along the ramp. Vehicles destined to Clark/Max Blob's Park Road and MD 175 eastbound would exit mid-ramp onto Max Blob's Park Road and travel to the signalized intersection with MD 175. Vehicles destined to MD 175 westbound would continue on the relocated interchange ramp to the MD 175/MD 295 signalized intersection.

FORT MEADE ACCESS OPTIONS

- **General Fort Meade Access Option A:** At-grade intersection widening at Rockenbach Road, Reece Road, Mapes Road and Llewellyn Avenue.
- **General Fort Meade Access Option B:** This continuous flow intersection option consists of an at-grade intersection improvement at either MD 174 (Reece Road) or Mapes Road.
- **Mapes Road Option B:** Provides a ramp for westbound MD 175 traffic to enter the Fort using a grade-separated bridge over eastbound MD 175. To exit Fort Meade, drivers traveling westbound and northbound would use the at-grade signalized intersection at Mapes Road/MD 175, as with current conditions. Drivers traveling eastbound would have a free right turn onto MD 175, thus avoiding the signalized intersection.
- **Reece Road Option B Modified:** Provides a new exit from Fort Meade at 18th Street. Drivers wanting to travel westbound on MD 175 would exit Fort Meade using a ramp that passes over eastbound MD 175 and merges onto westbound MD 175.

C. Description of Section 4(f) Resources

The Preferred Alternative results in impacts to four Section 4(f) resources- Trusty Friend, Baltimore-Washington Parkway, Jones House and Odenton Historic District. As previously stated, *de minimis* findings for Baltimore-Washington Parkway, the Jones House and Odenton Historic District are being sought. Therefore, only a description and evaluation of Trusty Friend is included in this Final Section 4(f) Evaluation. For detailed descriptions of the remaining Section 4(f) resources impacted by the project, refer to Sections II.D.1 and II.D.2 of this document.

Trusty Friend (AA-123); http://www.mdihp.net/index.cfm

Trusty Friend (AA-123)

Trusty Friend (circa 1870) is a single dwelling wood-frame house designed in the Italianate style. The property is located on a 3.3-acre parcel at 2839 Jessup Road, west of Sellner Road and the southwest quadrant of the MD 175/MD 295 interchange. Access to the property is from a system of

driveways off of MD 175 southbound and Sellner Road. The structure is an excellent example of the Italianate style, including a cupola and second-story balustraded balcony and porch with Tuscan columns. The Italianate style was popular during the mid-to late nineteenth century. The site is qualified for eligibility for the NRHP under Criterion C, indicating the building embodies distinctive characteristics of a type, period, or method of construction, or represents the work of a master. This property is currently occupied by at least one and possible multiple families.

D. Use of Section 4(f) Property by the Preferred Alternative

A number of alternatives were evaluated to assess potential impacts to the Trusty Friend property while also gauging their ability to satisfy the project's Purpose and Need. Proposed improvements along MD 175, including roadway widening, hiker/biker trail installation (and associated grading), would impact approximately 0.4 acre of impact to the frontage of the Trusty Friend property under the Preferred Alternative (see **Figure 4**). Specifically, the property would be affected by a proposed four-lane divided typical section along MD 175, between Brock Bridge Road and MD 295 and a 370-foot long strip take approximately 45-65 feet wide that would be required. MHT's adverse effect determination is due to the roadway moving approximately 50 feet into the property, closer to the main house, resulting in the partial removal of the historic driveway approach and the removal of vegetation. In addition, MHT noted the Preferred Alternative would introduce visual and atmospheric elements into the property's setting that would need to be minimized or mitigated (see **Appendix F**). Under the Preferred Alternative, the house will remain set back over 300 feet from the proposed edge of roadway and no impacts to access into the property are anticipated, other than driveway entrance reconstruction.

E. Section 4(f) Avoidance Alternatives/Options

In addition to the No-Build Alternative, which would have no impact on Trusty Friend, avoidance alternatives and options were considered to avoid impacts to the Section 4(f) resource. Each avoidance alternative is analyzed in accordance with the definition of *feasible and prudent avoidance alternatives* found in 23 CFR 774.17. The following describes alignment avoidance measures developed to fully avoid and/or minimize potential impacts to Trusty Friend, and resultant impacts. Anticipated improvement in traffic levels of service within the project area as a result of the Proposed Action would not change if any of the following measures were to be implemented.

Trusty Friend (AA-123) Avoidance Alternatives

The team investigated two avoidance alternatives, including a No-Build option (Alternative 1TF) as well as a build option (Alternative 2TF) that shifts the proposed MD 175 alignment to the north, away from the historic resource, to avoid the impacts incurred from the proposed MD 175 widening improvements.

Alternative 1TF – No-Build

Under the No-Build Alternative, the proposed improvements would not occur and impacts to the Section 4(f) resource, Trusty Friend, would be avoided. Although Alternative 1TF has no impacts and routine maintenance would cost less than the proposed Preferred Alternative, it is not prudent because 1) it does not provide for anticipated traffic volumes from planned and future development in and around the study area; and 2) it does not address the Purpose and Need of the project. Projected 2030 No-Build conditions find that the AM and PM peak hour levels of service to be well beyond failure with the volume of traffic trying to get through the MD 175/Brock Bridge Road intersection being three to five times the capacity of the intersection. Volume-to-capacity ratios of this magnitude would require at least several traffic signal cycles to clear queues, and queues would spill back well beyond adjacent intersections, including the MD 295 interchange. Based on the level of service analysis, traffic volumes at Brock Bridge Road and Sellner/Race Road intersections warrant a six-lane section along MD 175, compared to the existing two-lane roadway section. Alternative 1TF is therefore not considered feasible and prudent and is being eliminated because it causes other severe problems of a magnitude that substantially outweigh the importance of protecting the Trusty Friend property.

Alternative 2TF – MD 175 Alignment Shift

A 50-foot northerly alignment shift for a distance of 1,200 feet would displace six existing properties (two businesses and four residences). In addition to the severe social and economic impacts related to the displacements, the costs and coordination efforts to relocate the displaced properties are not known at this time; however, the highway costs to shift the alignment will cost approximately $800,000 more for construction, not including right-of-way, than the proposed baseline widening. In addition, this alignment shift requires a reverse curve, a design element that is not favorable due to safety concerns.

Alternative 2TF is not feasible or prudent because of the projected cost and the likely displacement of six existing properties. Alternative 2TF is therefore not considered prudent and feasible and is being eliminated because it causes severe problems of a magnitude that substantially outweigh the importance of protecting the Trusty Friend property.

F. Least Overall Harm Analysis

Pursuant to 23 CFR 774.3(c)(1), if the avoidance analysis determines that there is no feasible and prudent avoidance alternative, then only the alternative that causes the least overall harm may be approved. A series of minimization techniques have been evaluated for the MD 175 Preferred Alternative and applied at Trusty Friend. The team investigated reducing right-of-way impacts to the resources through the use of retaining walls, reduced grading sections, and/or mechanically stabilized grading methods (such as 1.5:1 slopes with geotextiles to mechanically stabilize the slopes instead of 2:1 to 4:1 slopes).

Trusty Friend (AA-123) Minimization Alternative

Proposed roadway widening, hiker/biker trail installation and associated grading along MD 175 would impact the Trusty Friend property under the Preferred Alternative. The widening of MD 175 would result in the southern edge of pavement shifting as much as 50 feet to the south, into the Trusty Friend property and grading impacts to the frontage of the Trusty Friend property.

To minimize impacts to the Trusty Friend historic property, a retaining wall was investigated but dropped from further investigation due to revised proposed drainage ditch requirements. Grading was reanalyzed since the EA, which determined that because the existing topography slopes toward MD 175, the previously proposed two-foot flat bottom ditches require more depth, adjacent to the proposed retaining wall, in order to drain properly toward the SWM facility to the west. Therefore, a wall with a drainage ditch would not reduce impacts to the property, as compared to the normal typical section. The team also investigated the use of mechanically stabilized grading slopes, because 2:1 grading slopes are already incorporated into the proposed design, in order to minimize impact to the property.

Alternative 3TF – Mechanically Stabilized Grading Slopes

Installation of modified grading slopes using 1.5:1 slopes with geotextiles to mechanically stabilize the slopes, instead of the currently designed 2:1 slopes, would reduce the 0.4 acre impact at

the Trusty Friend property by 0.02 acre. The impact savings would be linear, approximately three feet wide, with a length of 330 feet. The cost of the modified grading slopes with mechanically stabilized embankment would be approximately $145,000 (costs include mechanically stabilized slope material, engineering and construction contingencies only; maintenance costs would be additional). However, mechanically stabilized slopes with 1.5:1 grading are difficult to construct and soils must be structurally analyzed before implementation. In addition, the cost of stabilized slopes is expensive ($145,000), compared to traditional grading practices ($10,000), and vegetation is difficult to cultivate and maintain. **Table 9** summarizes each alternative, including quantities of Section 4(f) property right-of-way impact and associated minimization cost. **Table 10** presents the Least Overall Harm Analysis, using the evaluation of seven factors identified in 23 CFR 774.3(c)(1).

This alternative requires grading on steep slopes that could result in soil erosion, sedimentation in proposed drainage ditches and degradation of water quality. Stabilized slopes with 1.5:1 grading are not preferred, because of the potential hazards that could result, and as noted above, soils must be structurally analyzed before implementation to avoid slope failure. In addition, vegetation is difficult to access in order to cultivate and maintain.

Therefore, this alternative is not considered to be prudent because it would result in additional construction, maintenance, and operational costs of an extraordinary magnitude compared to the Preferred Alternative. Alternative 3TF is therefore not considered prudent and is being eliminated because it causes severe problems of a magnitude that substantially outweighs the importance of protecting the historic resource.

G. Concluding Statement

Based upon the considerations cited in Chapters III.E. and III.F., there is no prudent or feasible alternative to the use of land from Trusty Friend Section 4(f) resource. This evaluation also demonstrates that there are unique problems (e.g., the need to address anticipated traffic volumes from planned and future development in and around the study area) involved in the use of alternatives that avoid this property and that the cost, social, economic, environmental impacts, and community disruption resulting from such an alternative reaches extraordinary magnitudes. The evaluation presented in this Final Section 4(f) Evaluation demonstrates that through the various avoidance and minimization options evaluated, and through coordination with the MD SHPO (MHT) to develop of a MOA for Trusty Friend, the Proposed Action includes all possible planning to

minimize harm to these resources resulting from such use. Proposed mitigation measures are discussed below, and a copy of the draft MOA for impacts to Trusty Friend is located in **Appendix F**.

H. Coordination

Coordination with individual property owners, MHT and Anne Arundel County is ongoing, and will continue through the design phase for impacts to Section 4(f) resources by the Preferred Alternative.

Trusty Friend Mitigation Measures

The widening of MD 175, as proposed under the Preferred Alternative, would result in pavement and grading impacts to the frontage of the Trusty Friend property. The MHT has determined that the alternatives will adversely affect the property, introducing visual and atmospheric elements into the property's setting that will need to be minimized or mitigated. In addition, the existing roadway would be moved 50 feet closer to the main house, resulting in the partial removal of the historic driveway approach and the removal of vegetation, including potential removal of six White Oak specimen trees.

Mitigation for adverse effects to Trusty Friend by the Preferred Alternative is being coordinated through an MOA (see **Appendix F**) between FHWA, MD SHPO (MHT) and SHA, with input from the owners of Trusty Friend and other consulting parties, including Fort Meade, NPS, the Jessup Improvement Association, the Odenton Heritage Society, and the Anne Arundel County Office of Planning and Zoning and Office of Environmental and Cultural Resources. The ACHP was notified of MHT's adverse effect determination in February 2011, and accordingly, in a letter dated February 17, 2011, ACHP declined participation at this time (**see Appendix G**).

Per the MOA in **Appendix F**, FHWA, MD SHPO (MHT), and SHA agree that the undertaking shall be implemented in accordance with stipulations as outlined in the MOA in order to take into account the effect of the undertaking on historic properties (i.e., Trusty Friend historic property), such that SHA will develop and implement a Landscape Plan at thirty percent completion of design of MD 175 Segment 9 to provide an appropriate vegetative buffer between Trusty Friend and the proposed undertaking. The vegetative buffer shall occur within MD SHA's right-of-way for

Table 9. Summary of Avoidance/Minimization Alternative Impacts for Trusty Friend

Alternative Project	Section 4(f) Resource Avoidance?	Meets Project Needs	Wetland Impacts? (systems)	Stream Impacts? (linear feet)	Floodplain Impacts? (acres)	Forest Impacts? (acres)	Non 4(f) Property Impacts? (acres)	Reduction of Impacts on Section 4(f) Resource: Historic Property (acres)	Total Section 4(f) Right-of-Way Required (acres)	Approximate Cost of Avoidance/ Minimization Improvement*
Avoidance Alternative – Trusty Friend										
1TF - No-Build	Yes	No	No	No	No	No	No	No	0	$0
2TF - Alignment Shift on MD 175	Yes	Yes	No	No	No	No	Yes	-0.4	0	$800,000+
Minimization Alternatives – Trusty Friend										
3TF – Mechanically Stabilized Grading Slopes	No	Yes	No	No	No	No	No	-0.02	0.38	$145,000+

** Right-of-Way costs are not included in approximate improvement cost.*

Table 10. Least Overall Harm Analysis for Trusty Friend

23 CFR 774.3(c)(1) Factor	Alternative 3TF	SHA Preferred Alternative	Conclusion
i. The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property)	Impacts to Trusty Friend may be mitigated by MHT, National Park Service, Anne Arundel County and/or public outreach.		There is ability to mitigate adverse impacts with both alternatives.
ii. The relative severity of the remaining harm, after mitigation, to the protected activities, attributes or features that qualify each Section 4(f) property for protection.	Moderate harm to the Trusty Friend property, mostly visual. The house will remain set back over 300 feet from the proposed edge of roadway.		After mitigation, both alternatives provide minimal to moderate harm to the resource, mostly through grading and visual impacts.
iii. The relative significance of each Section 4(f) property	The Trusty Friend site is qualified for eligibility for the NRHP under Criterion C, indicating that the building embodies distinctive characteristics of a type, period, or method of construction, or represents the work of a master.		Based on coordination with MHT that was conducted in December 2010, the Preferred Alternative would adversely affect the Trusty Friend property. The Trusty Friend property is the only resource that would result in an adverse effect. The minimization alternative would not change the effect determination.
iv. The views of the officials with jurisdiction over each Section 4(f) property	SHPO has not provided views that identify a preference among options or resources	In December 2010, the SHPO concurred that the Preferred Alternative would result in an Adverse Effect to Trusty Friend.	The minor reduction in impacts to Trusty Friend gained through the minimization alternative did not change the SHPO's effect determination.
v. The degree to which each alternative meets the Purpose and Need for the project	Meets Purpose and Need for the project.		Both alternatives meet the Purpose and Need.
vi. After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f)	Impact to six White Oak specimen trees located on the Trusty Friend property would still be impacted.	Slightly more tree impacts would be expected under the Preferred Alternative than the minimization alternative.	The minimization alternative would result in a cost increase over the Preferred Alternative without substantially reducing the impact or changing the effect determination for the project.
vii. Substantial differences in cost among the alternatives	Costs $145,000 more than the Preferred Alternative. (Stabilized Embankment + W-Beam Traffic Barrier)	Costs $145,000 less than the minimization alternative.	The minimization alternative would result in a cost increase over the Preferred Alternative and will not change the overall effect of the project.
Conclusions of least overall harm evaluation	Results in minimal decrease in property impact; minimal impacts to Trusty Friend; meets Purpose and Need; visual and maintenance concerns; expensive alternative.	Meets the Purpose and Need of the project but results in slightly greater impacts to the Trusty Friend property.	In general, the Preferred Alternative design attempts to preserve Trusty Friend with the least amount of impact possible; although the minimization alternative provides minimal decreases in impact, it is cost prohibitive compared to the resource impact savings.

the MD 175 widening and encompass an area on the north side of Trusty Friend along its revised NRHP boundary. In developing the Landscape Plan, MD SHA will take into account the type of trees and shrubs that are present in the area of the proposed right-of-way acquisition in order to restore the appearance of the wooded area. In addition, SHA will provide protection for any tree that is not taken but is near the impact area. Owners of Trusty Friend and MD SHPO (MHT) will be afforded the opportunity to review and comment on the Landscape Plan. SHA shall implement the approved Landscape Plan as part of the construction of the undertaking's contract for Segment 9 or not later than one year following the completion of Segment 9. Upon completion of the undertaking, SHA shall prepare an Addendum to the existing Maryland Inventory of Historic Places (MIHP) record that describes and justifies the revised NRHP boundary, illustrates the new boundary on mapping, and documents the post-construction condition of the property in photographs that meet the MD SHPO's (MHT's) standards and guidelines.

FHWA and SHA also agree to ensure reasonable efforts will be made to avoid, minimize or mitigate adverse effects to any historic properties unexpectedly identified during the implementation of the undertaking, and would perform any resulting cultural resources work in accordance with relevant performance standards cited in the MOA. The MOA outlines action to be taken if ancillary activities and alignment modifications are added to the undertaking in the future, specifically including a proposed SWM pond with boundaries corresponding to the Anne Arundel County tax parcel on Map 13, Grid 11, Parcel 169. Stipulations are also provided in the MOA for Administration, Dispute Resolution, Resolution of Objections by the Public, Amendment, Termination, and Duration/Sunset.

IV. SUMMARY OF PUBLIC INVOLVEMENT

A. Public Workshop and Hearing

A Public Workshop to discuss the MD 175 Alternatives was held on Wednesday, March 28, 2007, at Meade High School in Fort Meade, Maryland. The purpose of the workshop was to provide an opportunity for area residents and community representatives to review, ask questions, and comment on the conceptual designs of the proposed alternatives. Of the 402 people who attended the workshop, a majority supported a build alternative and noted concern about traffic congestion and safety of pedestrians and bicyclists. One hundred sixty (160) comment cards were submitted to SHA following the workshop, and most expressed support for a build alternative (Alternative 6).

The MD 175 Location/Design Public Hearing was held on Thursday, June 26, 2008 at Meade Middle School in Fort Meade, Maryland. The purpose of the hearing was to present the ARDS and to provide an opportunity for public participation in the overall planning process. Aesthetic features developed for the MD 175/MD 295 interchange and various intersection improvements, and the results of the engineering and environmental studies were also presented. Approximately 325 people attended the hearing, with 33 people testifying publicly and one person providing private testimony. Thirteen comment cards were received during the public comment period. Those who attended the public hearing reiterated many of the same important issues raised at the Alternates Public Workshop. The comments and SHA's responses are summarized in **Tables 11** and **12**.

The SHA has met with several concerned citizen groups throughout the course of the project planning study, including the Jessup Improvement Association, Fort Meade Alliance Transportation Committee, the West Anne Arundel County Chamber of Commerce, the Greater Odenton Improvement Association, the Greater Crofton Homeowners Association, the OTC Oversight Committee, the North Odenton Business Association, as well as held meetings with individual property owners and business operators. SHA also provided regular updates on the MD 175 Project Planning to Fort Meade representatives.

In summary, as a result of the Alternates Public Workshop, the Public Hearing, and other community meetings, citizen suggestions have been incorporated in the design of the Preferred Alternative for the MD 175 corridor. Additionally, the Preferred Alternative has been designed to provide safe conditions for motorists, bicyclists, and pedestrians, with the construction of a sidewalk, hiker/biker facilities, and an improved roadway facility.

B. Summary of Oral/Written Comments and SHA Responses

West of the MD 175/MD 295 interchange, residents, business leaders and community groups expressed opposition to a proposed six-lane alternative tying into an existing two-lane roadway, as well as potential impacts to the community in the Jessup area from MD 295 to I-95. As a result, SHA chose a four-lane option as the Preferred Alternative. Future development plans in the area could result in a developer constructed five-lane roadway section for the section from Brock Bridge Road to MD 295. Additionally, Anne Arundel County plans a study to address future traffic needs west of Brock Bridge Road.

Business owners and community leaders from the North Odenton area (Reece Road to MD 32) expressed opposition to a six-lane alternative centered on the existing roadway (Alternative 3) based on the potential displacements and impacts to the commercial area. As a result, SHA and Fort Meade officials settled on the Alternative 6 alignment, which held the existing curb line on the north side of the existing roadway and added a five-foot sidewalk and associated grading to tie into existing conditions. The alignment shift results in minimal commercial displacements in the area. Additionally, after meeting with business owners in the North Odenton area, SHA agreed to incorporate a small retaining wall adjacent to the north side sidewalk that would eliminate two commercial displacements.

Within the Fort Meade limits, security issues have led the study team to recommend roadway alignment shifts to remain a prescribed distance from many Fort-related structures. However, two buildings will require additional structural modifications because they will fall within the mandated distance. SHA and Fort Meade officials are currently in negotiations to determine the amount of fortification required.

Residents, business leaders and community groups from the Odenton area (MD 32 to MD 170) expressed opposition to a six-lane alternative based on concerns about impacts to the community. Realizing their concerns, SHA chose the Enhanced TSM option, even though the Preferred Alternative results in failing levels of service. Anne Arundel County officials agreed with the SHA decision with the knowledge that the County was going to commission a planning study in the Odenton area to address future traffic needs.

Public Hearing Comments

The SHA held a Location/Design Public Hearing for the MD 175 Project Planning Study on Thursday, June 26, 2008 to present the Alternatives Retained for Detailed Study and the findings presented in the EA. Approximately 325 people attended the hearing, with 33 people testifying publicly and one citizen providing private testimony. The majority of the concerns from the individuals who provided public testimony consisted of the impact that the traffic would have on the existing communities west of the MD 175/MD 295 interchange in the Jessup area and east of MD 32 in the Odenton area and how the roadway improvements would interact with the regional roadway network. Major concerns also consisted of pedestrian and bicycle accommodations, business property impacts in the North Odenton area, preservation of historic and church properties and utilization of transit options.

In response to the comments received and in order to satisfy the different goals of the corridor, elements of various alternatives have been combined to create the Preferred Alternative. The SHA Preferred Alternative roadway improvements consist of widening the existing MD 175 roadway to two lanes in each direction separated by an 18-foot concrete median from Brock Bridge Road to the Sellner/Race Road intersection. At the MD 175/MD 295 interchange, Option F has been selected, which is a cloverleaf interchange option that holds the existing southern edge of roadway in the interchange area and eliminates the loop ramps in northeast and northwest quadrants. Traffic movements provided by these loop ramps would be relocated onto left turns at signalized intersections with MD 175 in the southeast and southwest quadrants, respectively. From the Max Blob's Park/Clark Road intersection to MD 32, the Preferred Alternative widens existing MD 175 to six lanes. It also includes a southern alignment shift from east of MD 713 (Rockenbach/Ridge Road) to Reece Road in order to provide the minimum standoff distance from existing Fort Meade buildings to the proposed roadway edge. Minimal business displacements would occur along the North Odenton commercial corridor with this preferred alignment. East of the MD 175/MD 32 interchange in the Odenton area, the preferred alignment generally holds the existing roadway width with the exception of adding turn lane capacity from Nevada Avenue to Morgan Road/Town Center Boulevard. A five-foot sidewalk on the north side of the roadway and an eight-foot hiker/biker trail on the south side of the roadway are proposed along the entire project corridor.

Table 11. Summary of Public Oral Comments from the Location Design Public Hearing held on Thursday, June 26, 2008.

Citizen's Comments	From	SHA's Response
Concerns about bicycle access along MD 175.	Matthew Craig, Ken Clauson, Ben Winstead, Eric Davis, Kendra Smith, Melania Pender, Ann Walls, John Jaworski	Pedestrian and bicycle accommodations are included as part of MD 175 Preferred Alternative. This includes on-road bike lanes (eastbound and westbound) as well as sidewalks on the north side and/or multi-use trail on the south side of MD 175. These accommodations would also be included in the proposed interchange areas. Sidewalks have also been included in all side road improvements and a multi-use trail, as per Anne Arundel County Master Plan, is proposed along Morgan Road/Town Center Boulevard. The specific provisions and actual location of these facilities would be determined in the Design phase. In addition, the October 2010 Memorandum of Agreement (MOA) between SHA and Fort Meade (see **Appendix E**) states Fort Meade agrees to SHA's Preferred Alternative and interim intersection designs, also referred to in the MOA as the "Projects." It is agreed upon in the MOA that Fort Meade agrees to fully support making the easement or right of way available that is needed on Fort Meade property for the Projects by the U.S. Army Corps of Engineers issuing a perpetual easement.
Supports four lanes on MD 175 with intersection, pedestrian and bike path improvements east of MD 32.	Joseph Gorman, David Tibbetts, Claire Louder, George Cardwell (speaking on behalf of the A. A. County Executive), Jay Winer, Mike Livingston, Doreen Stathman	Traffic level of service studies conducted for the year 2030 indicate, that without improvements, several intersections east of MD 32 would fail including: Morgan Road/Town Center Boulevard, Library Entrance/Winmeyer Avenue and MD 170. The existing typical section along MD 175 at the following intersections is already four lanes with a left-turn lane: Morgan Road/Town Center Boulevard, Library Entrance/Winmeyer Avenue and MD 170. Consequently, these intersections would need to be improved to at least six lanes in order to achieve an acceptable level of service. However, in response to concerns about the potential harmful effects to existing important resources, SHA chose Alternative 2A – Enhanced TSM to be part of the Preferred Alternative in the Odenton area from west of MD 32 to MD 170. From MD 32 east, Alternative 2A (Enhanced TSM) in Odenton generally holds the existing roadway width with the exception of adding turn lane capacity from Nevada Avenue to Morgan Road/Town Center Boulevard. The Enhanced TSM Alternative adds a five-foot sidewalk on the north side of the roadway and an eight-foot multi-use trail on the south side of the roadway to the existing typical section. Current traffic information indicates that the level of service calculations may fail but

Citizen's Comments	From	SHA's Response
		might fall within acceptable County standards for a roadway facility of this type.
Supports six lanes on MD 175 with intersection, pedestrian and bike path improvements west of MD 32.	Joseph Gorman, David Tibbetts, Claire Louder	Currently, projected traffic volumes for the design year 2030 indicate, to obtain adequate levels of service, the need for six lanes on MD 175 from Sellner/Race Road intersection to the MD 170 intersection. Based on this information, the MD 175 Preferred Alternative proposes three through lanes eastbound and westbound from the Sellner/Race Road intersection to MD 32. Additionally, pedestrian and bicycle accommodations would be included as part of this alternative. This includes on-road bike lanes (eastbound and westbound) as well as a five-foot sidewalk on the north side of the roadway and an eight-foot multi-use trail on the south side of the roadway. Sidewalks have also been included in all side road improvements. The specific provisions and actual location of these facilities would be determined in the Design phase. Additionally, there should be sufficient area to provide beautification plantings immediately adjacent to the roadside and in medians.
Concerns about proposed roadway improvements in the North Odenton commercial area.	David Tibbetts, Jay Winer, Larry Isgrig, Claire Louder, Doreen Strathman	The Preferred Alternative alignment proposed in the North Odenton area holds the existing northern curb edge and proposes a southern alignment shift to minimize or avoid commercial displacements in the North Odenton area. Pedestrian and bicycle accommodations would be included as part of MD 175 Preferred Alternative. This includes on-road bike lanes (eastbound and westbound) as well as sidewalks and/or multi-use trail. Sidewalks have also been included in all side road improvements. The specific provisions and actual location of these facilities would be determined in the Design phase. In addition, the October 2010 Memorandum of Agreement (MOA) between SHA and Fort Meade (see **Appendix E**) states Fort Meade agrees to SHA's Preferred Alternative and interim intersection designs, also referred to in the MOA as the "Projects." It is agreed upon in the MOA that Fort Meade agrees to fully support making the easement or right of way available that is needed on Fort Meade property for the Projects by the U.S. Army Corps of Engineers issuing a perpetual easement.
Concerns about preservation of the Jones House and Nichols-Bethel Methodist Cemetery.	Roger White, Charles Billings, Douglas Whittle, Reverend Kenneth Humbert	Section 4(f) of the Department of Transportation Act permits the use of land from a significant publicly owned public park, recreation area, wildlife or waterfowl refuge, or historic site (as determined by the officials having jurisdiction over the resource) as part of a federally funded or approved transportation project, only if there is no feasible and prudent alternative to the use, and the proposed action includes all

Citizen's Comments	From	SHA's Response
		possible planning to minimize harm to the property. The Jones House property would be impacted but would not be displaced by the Preferred Alternative. The proposed placement of an eight-foot multi-use trail along the south side of MD 175 and roadway widening along Morgan Road would account for the impacts to the property. Based on burial plot location mapping provided by Nichols-Bethel United Methodist Church and field investigations performed by SHA, the Preferred Alternative will not impact the Nichols-Bethel United Methodist Cemetery. The project's design in this location will be carefully monitored throughout the remaining phases of the project, which may require special provisions.
Concerns about grid of streets within the Odenton Town Center area, MD 32 to Amtrak/MARC/CSX Penn Line Bridge.	George Cardwell (speaking on behalf of the A. A. County Executive), Doreen Strathman	Responding to concerns about the potential harmful effects to existing important resources and coordination with the OTCMP, the Preferred Alternative proposes utilizing the existing MD 175 alignment and typical roadway section from MD 32 to Winmeyer Avenue. The proposed alternative differs from the existing roadway condition by adding turn lane capacity from Nevada Avenue to Morgan Road/Town Center Boulevard. Additionally, a five-foot sidewalk on the north side of the roadway and an eight-foot multi-use trail on the south side of the roadway are proposed. It is noted that current traffic information indicates that the level of service calculations may fail but might fall within acceptable Anne Arundel County standards for a roadway facility of this type. In the summer of 2010, Anne Arundel County initiated a transportation study, which assessed the existing and future mobility needs in the Town Center area. The study assumed incorporation of the MD 175 Preferred Alternative.
Concerns about MD 32 access to Fort Meade.	Jay Winer, Kevin Fields, Larry Isgrig, Melania Pender, Senator Ed	MD 32 is a controlled access highway that works in tandem with, and is reliant upon, arterial facilities in the study area such as MD 175, to allow vehicles to access adjacent land uses in the Fort Meade, Odenton, Jessup and surrounding areas. SHA in consultation with Fort Meade officials has discussed this issue and determined that

Citizen's Comments	From	SHA's Response
	DeGrange	traffic using MD 175 to access the Fort Meade facility cannot be solely diverted onto MD 32 for the following reasons: 1) Based on the Fort Meade Master Plan and BRAC related improvements, new and relocated facilities will be primarily located closer to MD 175. 2) Traffic model results show that a large amount of traffic along MD 175 is destined to residences, businesses and developments along MD 175, not just to Fort Meade. In addition, another gate for Fort Meade along MD 32 is not feasible, because the Architect of the Capitol owns the land immediately adjacent to MD 32 and will not allow construction of another access point.
Questioned why the Study Team was not consulting the 1999 Route 175 Roadway Master Plan, from Reece Road to MD 32.	Jay Winer	Typical Section Figure 5 from October 1999, provided in the OTCMP assumes almost all right-of-way acreage would be acquired from Fort Meade. The proposed Town Center Plan typical section assumes two travel lanes (25 foot width) in each direction with a 20-foot median width. However, this typical does not provide for on-road bike lanes or the provision for a double left turn in the median, which current traffic studies project will need to occur in order to achieve adequate levels of service. The proposed typical section also assumes an 18-foot access road with parking facilities on the north side, nearest to the businesses. This poses problems because the access road width is only sufficient for one-way operation. In addition, the typical section does not account for additional right-of-way that would be required to create an intersection to tie-in the access road to a side road (Reece Road, Charter Oaks Boulevard or Blue Water Boulevard). Typically, in order to achieve a safe and efficient intersection from an access road to a side road, the roadway connection needs to be offset at least 100 feet from the mainline intersection in order to allow sufficient queuing capacity. Unfortunately, this would mean that the commercial properties closest to the intersections would likely be displacements in order to construct tie-in connections from the potential access roads to the side roads. This in turn may create signalization problems with intersections so close to each other, especially with the projected traffic volumes for these Fort Meade intersections. The signals would have to work in unison in order to create an efficiently functioning intersection. Furthermore, the total right of way width for the typical section provided totals up to 167 feet if a double left turn is required at intersections. Assuming the existing

Citizen's Comments	From	SHA's Response
		building limits on the north side of MD 175 would be the northern most limits of the proposed right-of-way; this means that up to 97 feet would be required from Fort Meade property. This situation would present security problems for the Fort Meade buildings nearest MD 175 on the south side as they will have to be hardened, which is extremely expensive. The Preferred Alternative alignment in the area from Reece Road to MD 32 typically holds the existing northern curb edge and proposes a southern alignment shift to minimize or avoid commercial displacements in the North Odenton area. Pedestrian and bicycle accommodations would be included as part of the MD 175 Preferred Alternative. This includes on-road bike lanes (eastbound and westbound) as well as sidewalks and/or multi-use trail. In addition, the October 2010 Memorandum of Agreement (MOA) between SHA and Fort Meade (see **Appendix E**) states Fort Meade agrees to SHA's Preferred Alternative and interim intersection designs, also referred to in the MOA as the "Projects." It is agreed upon in the MOA that Fort Meade agrees to fully support making the easement or right of way available that is needed on Fort Meade property for the Projects by the U.S. Army Corps of Engineers issuing a perpetual easement.
Questioned why the Study Team was not consulting the 1999 Route 175 Roadway Master Plan, from MD 32 to MD 170.	Jay Winer	Along MD 175 in the area from MD 32 to MD 170, two typical sections are provided in the OTCMP, dated October 2003. Typical Section Figure 52, from Baldwin Road to Town Center Boulevard, is a proposed two-lane roadway with on-street parking and sidewalks, which anticipates a 94-foot right-of-way width. The typical section calls for two 18-foot drive lanes in each direction, 11 foot parking lanes on both sides of the road. In addition, the typical section provides for 18-foot sidewalks on both sides of the roadway. It appears that the typical section provides a median of unknown width. This typical section does not provide for a center turn lane but does mention the need at major intersections. Figure 52 does not provide enough travel lanes based on current traffic volumes nor does it propose on-road bike lanes or a multi-use trail on the south side. The existing roadway is already a four-lane roadway but if the proposed typical section were to be fully implemented, it appears that several displacements,

Citizen's Comments	From	SHA's Response
		commercial and residential would occur on the north side of MD 175. Typical Section Figure 51, from Town Center Boulevard to MD 170, is a proposed four-lane roadway calling for proposed right-of-way widths from minimum of 84 feet up to 124 feet (with all setbacks included). The typical section calls for two 11-foot lanes in each direction, provides on-road bike lanes and sidewalks but provides no provision for a multi-use trail. The typical section does not provide for a center turn lane but does mention the need to widen at major intersections. The existing conditions in this area already provide a four-lane roadway with provisions for left-turn lanes but no on-road bike lanes. The impacts that would occur with widening the existing roadway, for bike lanes, to conform to the Master Plan typical section would include: Nichols Bethel Cemetery property and possibly grave sites impacts as well as Odenton Historic District and Jones house property impacts. In addition, the MD 175 Bridge over the MARC/CSX railroad tracks would require widening. There appear to be potential displacements caused by this typical section implementation, especially if additional left-turn or acceleration/deceleration lanes are required. The Preferred Alternative, from MD 32 east in the Odenton area, chose to hold the existing centerline and roadway section that utilizes two lanes in each direction with center turn lane facilities in some areas. However, the alternative differs from the existing condition by proposing additional turn lane capacity from Nevada Avenue to Morgan Road/Town Center Boulevard. Also, the proposed typical section adds a five-foot sidewalk on the north side of the roadway and an eight-foot multi-use trail on the south side of the roadway, which would require widening of the MARC/CSX Bridge. The Preferred Alternative proposes several displacements within the improvement area from MD 32 to MD 170. Additionally, the roadway, sidewalk and multi-use trail improvements impact the Jones House property but would not impact the Nichols-Bethel Cemetery property. Current information indicates that the level of service calculations may fail but might fall within acceptable County standards for a roadway facility of this type.

Citizen's Comments	From	SHA's Response
Concerns pertaining to the MD 175 traffic analysis.	Kevin Fields, Larry Isgrig, Mike Livingston, Doreen Strathman, Landon Bressler, Ann Walls	Traffic level of service studies conducted for the year 2030 indicate, that without improvements, several intersections will fail including: Brock Bridge Road, Sellner/Race Road, Clark/Max Blob's Park Road, Rockenbach/Ridge Road, Disney Road/26th Street, Reece Road, Mapes Road/Charter Oaks Boulevard, Llewellyn Avenue/Blue Water Boulevard, Morgan Road/Town Center Boulevard, Winmeyer Avenue and MD 170. The existing typical section along MD 175 at the following intersections is already four lanes with a left-turn lane: Rockenbach/Ridge Road, Reece Road, Mapes Road/Charter Oaks Boulevard, Llewellyn Avenue/Blue Water Boulevard, Morgan Road/Town Center Boulevard, Winmeyer Avenue and MD 170. Consequently, most of these intersections will need to be improved to at least six lanes in order to achieve an acceptable level of service. In response to concerns about the potential harmful effects to existing important resources, the Preferred Alternative proposes widening existing MD 175 to provide a two-lane closed section roadway in each direction from Brock Bridge Road to Sellner/Race Road, a six-lane closed section roadway from Sellner/Race Road to the MD 32 Interchange and generally holding the existing roadway width (typically four lanes), with the exception of adding turn lane capacity from Nevada Avenue to Morgan Road/Town Center Boulevard, from MD 32 to MD 170. Current traffic information indicates that the level of service calculations may fail in the proposed four-lane areas in the west and east ends of the project, but might fall within acceptable County standards for a roadway facility of this type.
Supports Alternative 1 (No-Build).	Melanie Hendrick, Clarke Beaudry, Michaela Burgnon	No major improvements are proposed with Alternative 1, the No-Build Alternative. Minor short-term improvements would occur as part of normal maintenance and safety projects. This alternative does not address the Purpose and Need for the project. However, it serves as a baseline for comparing the impacts and benefits of other proposed alternatives.

Citizen's Comments	From	SHA's Response
Concerns about interaction with the regional roadway network.	Kevin Fields, Kevin McPartland, Gary Mauler, Harry Sinclair, Melania Pender, Senator Ed DeGrange, Landon Bressler	The current study being conducted by the SHA Project Planning Division is just one of numerous transportation improvement studies being conducted by SHA, MTA, MDOT, Anne Arundel County, Howard County and other agencies to develop comprehensive multi-modal and inter-modal solutions to the growing travel demands in Central Maryland. This project evolved from an Anne Arundel County feasibility study in 2006 and previous MDOT Highway Needs Inventories and is being closely coordinated with the on-going MD 295, MD 3 and MD 198 studies, as well as the MTA Maglev and MARC studies and the Corridor Transportation Corporations development of enhanced transit service in Anne Arundel and Howard counties. This project alone is not a "cure all," rather it is one of many solutions being considered to address BRAC and Enhanced Use Lease development in and around Fort Meade, as well as other approved development. The MD 175 project is consistent with the goals and objectives of both local and regional master planning efforts.
Concerns about the MD 175/MD 295 Interchange Concepts.	Kevin Fields, Orion Jones	The existing conditions for this tightly spaced interchange posed areas of concern when trying to develop practical solutions that would achieve acceptable levels of service while trying to minimize/avoid impacts to adjacent properties. The properties included commercial, residential, proposed development as well as the St. Lawrence Catholic Church. From an environmental standpoint, issues that were considered included National Park Service/Historic property, existing stream, wetland and forest impacts. Because of the proposed interchange configurations within SHA-owned property, the right-of-way and environmental impacts have been minimized as much as possible given the needs stressed by the traffic analysis study. Any potential displacements were caused by roadway widening of MD 175 and side roads, not because of the interchange options. The Preferred Alternative does not propose displacement of the St. Lawrence Catholic Church. Proposed traffic signals would be programmed to maximize traffic operations in this area as well as to help to create a safer environment for vehicular, bicycle and pedestrian traffic. Additionally regarding Fire Department emergencies, it is expected that emergency vehicles will have signal priority preemption at all traffic signals.

Citizen's Comments	From	SHA's Response
		At the MD 175/MD 295 interchange, Option F was selected for the Preferred Alternative, which is a cloverleaf interchange option that holds the existing southern edge of roadway in the interchange area and eliminates the loop ramps in northeast and northwest quadrants. Traffic movements provided by these loop ramps would be relocated onto left turns at signalized intersections with MD 175 in the southeast and southwest quadrants, respectively. Along MD 175, the Preferred Alternative proposes six through lanes in the interchange area but only four through lanes (two eastbound, two westbound) from Sellner/Race Road to the west along MD 175. .
Concerns about MD 175 improvement interaction with the Jessup Survey District	Kevin McPartland	Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 USC 303(c)) permits the use of land from a publicly-owned public park, recreation area, wildlife or waterfowl refuge, or land of a historic site of national, state or local significance (as determined by federal, state and local officials having jurisdiction over such resources), only if there is no prudent or feasible alternative to the use of such land and if the action includes all possible measures to minimize harm in accordance with the FHWA Section 4(f) regulations, 23 CFR 774, as well as FHWA's Section 4(f) Policy Paper (March, 2005), and is consistent with the criteria for a Section 4(f) Evaluation. A Section 4(f) "use" occurs when property identified as a Section 4(f) resource is permanently acquired and incorporated into a transportation project or when there is occupancy of land that is adverse in terms of the integrity of the Section 4(f) resource. The requirements of Section 4(f) apply to the MD 175 project because the proposed Build Alternatives would require the use of land from public parks and recreational facilities as well as historic sites listed or eligible for listing on the National Register of Historic Places (NRHP). SHA conducted initial coordination with the Maryland Historical Trust (MHT) in March 2007 to identify historic sites and archaeological resources within the Area of Potential Effect (APE) for the MD 175 project. Coordination with MHT, individual property owners, NPS, and Anne Arundel

Citizen's Comments	From	SHA's Response
		County is on going and will continue throughout the design phase should impacts to the Section 4(f) resources be required.
Concerns about utility installations.	John O'Lexey, Nancy Johnson, Larry Isgrig	The water and sewer line installations that are currently being constructed are not part of the MD 175 Project Planning Study. The SHA District Office or Anne Arundel County Department of Public Works should be contacted for information concerning the water or sewer projects. For the MD 175 Project Planning Study, potential utility relocations would be developed in more detail during Final Design stage.
Questioned whether the Study Team has met with local community groups and/or organizations.	Alvera Miller	SHA has held several meetings with local groups, organizations and business owners. The groups include: OTC Oversight Committee, Fort Meade Transportation Alliance, North Odenton Business Associations, Greater Odenton Improvement Association, Jessup Improvement Association as well as many study area business owners. The Project Team has been available to meet with any local group, organization or business owner that requested a presentation.

Table 12. Summary of Public Written Comments from the Location Design Public Hearing held on Thursday, June 26, 2008.

Citizen's Comments	From	SHA's Response
Concerns regarding pedestrian and biking improvements along MD 175.	Charles J. Stafford, Alan Klebanoff	The MD 175 Project Planning Study looked into improving the existing capacity, traffic operations, and pedestrian and bicycle safety of MD 175 between MD 170 and MD 295. Ultimately, the Preferred Alternative proposes bicycle compatible lanes as part of the typical section. As required by State law, on-road bicycle accommodations are to be provided with a 16-foot bicycle compatible outside lane in both directions. During the Final Design stage, analysis will occur pertaining to markings and signs designating the facility for bicycle usage so that motorists are informed about shared usage of the outside lane with bicyclists. Proposed improvements also include sidewalks on the north side and an eight-foot multi-use trail on the south side of MD 175. These accommodations would also be included in the proposed interchange areas. Sidewalks have also been included in all side road improvements and a multi-use trail, as per Anne Arundel County Master Plan, is proposed along Morgan Road/Town Center Boulevard. The specific provisions and actual location of these facilities would be determined in the Design phase. In addition, the October 2010 Memorandum of Agreement (MOA) between SHA and Fort Meade (see **Appendix E**) states Fort Meade agrees to SHA's Preferred Alternative and interim intersection designs, also referred to in the MOA as the "Projects." It is agreed upon in the MOA that Fort Meade agrees to fully support making the easement or right of way available that is needed on Fort Meade property for the Projects by the U.S. Army Corps of Engineers issuing a perpetual easement

Citizen's Comments	From	SHA's Response
Is a traffic signal being considered for MD 175/MD 295 Interchange Option A2?	David Sterner	Interchange A2 proposed a Single Point Urban Interchange (SPUI) in which all of the ramps to and from MD 295 at MD 175 would be realigned to function with one traffic signal in the center of the MD 175 bridge over MD 295 to control all conflicting movements. Since the Public Hearing, SHA selected Option F at the MD 175/MD 295 Interchange as part of the Preferred Alternative. Option F is a cloverleaf interchange that holds the existing southern edge of roadway in the interchange area and eliminates the loop ramps in northeast and northwest quadrants. Traffic movements provided by these loop ramps would be relocated onto left turns at signalized intersections with MD 175 in the southeast and southwest quadrants, respectively.
What will be the contract method? How does this project interface with the proposed Odenton Town Center?	Eamonn McGeady	The MD 175 Project Planning Study is currently in the Project Planning Phase of the Highway Development Process. At this time, the contract method (regular bid vs. design build) has not been determined. If the project is funded for other phases, the contract method will be determined at that time. In relation to traffic, our forecasted volumes take into account the proposed OTC. Additionally, Anne Arundel County is an active team member and a participating agency on the project. They keep us abreast on the status of the proposed OTC. In the summer of 2010, Anne Arundel County initiated a transportation study, which assessed the existing and future mobility needs in the Town Center area. The study assumed incorporation of the MD 175 Preferred Alternative.
Opposes Alternatives 3, 6 and 6A.	Ginger Pellerin, Kristin Foster	The Study Team has noted your opposition to Alternatives 3, 6 and 6A. The Preferred Alternative was selected based on the information developed for the planning study and input from regulatory agencies and

Citizen's Comments	From	SHA's Response
		the public. In order to best satisfy the different goals of the corridor, multiple alternatives were combined to create the Preferred Alternative, which consists of Alternative 4 (Modified) from Brock Bridge Road to west of MD 295, Option F at the MD 175/MD 295 interchange, Alternative 6 with the 21 ½ Street Option from MD 295 to MD 32, and Alternative 2A (Enhanced TSM) from MD 32 to MD 170.
Supports Alternative 2 (TSM).	Ginger Pellerin, Henry Shinaberry, Kristin Foster	The Study Team has noted your support of Alternative 2 (TSM). The Preferred Alternative was selected based on the information developed for the planning study and input from regulatory agencies and the public. In order to best satisfy the different goals of the corridor, multiple alternatives were combined to create the Preferred Alternative, which consists of Alternative 4 (Modified) from Brock Bridge Road to west of MD 295, Option F at the MD 175/MD 295 interchange, Alternative 6 with the 21 ½ Street Option from MD 295 to MD 32, and Alternative 2A (Enhanced TSM) from MD 32 to MD 170.
Concerns about underutilized mass transit, specifically the MARC Odenton Station. Has the study team considered rail along MD 175?	Joy Almendarez, Pamela Morris	The purpose of this project is to improve the existing capacity, traffic operations, intermodal connectivity, and vehicular and pedestrian safety of MD 175, while supporting existing and planned development in the area. Making changes to the MARC train schedule and adding trains in the future do not fully meet the purpose of the project and is not within the jurisdiction of the State Highway Administration. However, we are coordinating with the Maryland Transit Administration (MTA) and Maryland Department of Transportation (MDOT) on the Transit Oriented Development project located at the existing MARC Station in Odenton. Further, the Corridor Transportation Corporation (CTC), Howard County, and Anne Arundel County and CTC have plans to evaluate expanding transit service.
Concerns about vehicular safety in the Rae Road/MD 175 intersection area. Proposes acceleration/deceleration lanes.	Jeff Hendershot	The traffic projections at Rae Road do not warrant the need for acceleration/deceleration lanes on MD 175 in that area; however, the Preferred Alternative includes additional lanes and a median along this section of MD 175 to allow for safer access of MD 175 from Rae Road.

Citizen's Comments	From	SHA's Response
Supports Alternative 6A.	Karen Chiodardi	The Study Team has noted your support for Alternative 6A. The Preferred Alternative was selected based on the information developed for the planning study and input from regulatory agencies and the public. In order to best satisfy the different goals of the corridor, multiple alternatives were combined to create the Preferred Alternative, which consists of Alternative 4 (Modified) from Brock Bridge Road to west of MD 295, Option F at the MD 175/MD 295 interchange, Alternative 6 with the 21 ½ Street Option from MD 295 to MD 32, and Alternative 2A (Enhanced TSM) from MD 32 to MD 170.
Opposes Alternatives 1 (No-Build) and 2 TSM).	Margaret Giddo	Your opposition to Alternatives 1 (No-Build) and 2 (Transportation Systems Management) has been noted. The Preferred Alternative was selected based on the information developed for the planning study and input from regulatory agencies and the public. In order to best satisfy the different goals of the corridor, multiple alternatives were combined to create the Preferred Alternative, which consists of Alternative 4 (Modified) from Brock Bridge Road to west of MD 295, Option F at the MD 175/MD 295 interchange, Alternative 6 with the 21 ½ Street Option from MD 295 to MD 32, and Alternative 2A (Enhanced TSM) from MD 32 to MD 170.
Please add name to mailing list.	Peter Castruccio	Your name has been added to the project mailing list.
Supports Alternative 3 with sidewalks and a median.	Robert Bochar	The Study Team has noted your support of Alternative 3, a median, and pedestrian and bicycle accommodations along the corridor. The Preferred Alternative was selected based on the information developed for the planning study and input from regulatory agencies and the public. In order to best satisfy the different goals of the corridor, multiple alternatives were combined to create the Preferred Alternative, which consists of Alternative 4 (Modified) from Brock Bridge Road to west of MD 295, Option F at the MD 175/MD 295 interchange, Alternative 6 with the 21 ½ Street Option from MD 295 to MD 32, and Alternative 2A (Enhanced TSM) from MD 32 to MD 170.

Citizen's Comments	From	SHA's Response
		Pedestrian and bicycle accommodations would be included as part of the MD 175 Preferred Alternative. This includes on-road bike lanes (eastbound and westbound) as well as sidewalks and a multi-use trail.
Supports renovation and redevelopment of MD 175 between Charter Oaks Boulevard and Reece Road.	Kathryn Floyd	The Study Team has noted your suggestion to renovate and redevelop the MD 175 corridor between Charter Oaks Boulevard and Reece Road. The MD 175 Project Planning Study will look to improve the existing capacity, traffic operations, and safety of MD 175 between MD 170 and MD 295, while supporting existing and planned developments in the project area. Currently, the Preferred Alternative proposes to impact this section of MD 175. It was our goal to reduce impacts while meeting the Purpose and Need of the project. The Preferred Alternative alignment in the area from Reece Road to MD 32 typically holds the existing northern curb edge and proposes a southern alignment shift to minimize or avoid commercial displacements in the North Odenton area. Pedestrian and bicycle accommodations would be included as part of the MD 175 Preferred Alternative. This includes on-road bike lanes (eastbound and westbound) as well as sidewalks and a multi-use trail. It is the role of Anne Arundel County's Office of Planning and Zoning to plan for physical growth and development of the County. If you have further questions or comments regarding development and long range planning, please contact the Anne Arundel County Office of Planning and Zoning Long Range Planning office at 410-222-7432.

Citizen's Comments	From	SHA's Response
Questioned whether blinking traffic lights could be used during non-peak hours.	Kimi Novak	In determining whether traffic control signals should be installed at specific locations, the State Highway Administration (SHA) must adhere to the criteria within the nationally recognized *Manual on Uniform Traffic Control Devices* (MUTCD). This manual includes a series of warranting criteria that must be met before a traffic signal can be considered. Traffic signal warrants are based on data such as the traffic volumes along all approaches throughout the day, vehicle delays, pedestrians, sight distance, travel speeds, accident patterns, etc. It is uncommon for a traffic signal to be installed strictly to be used for a small period of the day and to flash for the rest of the day. For driver expectancy reasons, an intersection should have traffic volumes heavy enough throughout the majority of the day before a traffic signal would be considered. A signal that only operates in full-color mode for an hour or two during the day has the potential to surprise the unsuspecting mainline motorist when they come upon a traffic signal that is switching from the flashing mode over to the full-color mode. In this case, the potential for either red-light running or rear-end accidents along the mainline is greatly increased.
Concerns regarding Max Blob's Options A and B.	David Owens	Max Blob's Options A and B were not selected to be carried forward as part of the Preferred Alternative.

Citizen's Comments	From	SHA's Response
Supports improvements between Reece Road and MD 295 but has concerns about SWM being placed on her property.	Sarah Shannon	The Study Team has noted your objection regarding improvements from Reece Road to MD 170 and the location of a proposed SWM facility on your property, as well as your support for improvements between Reece Road and MD 295. The Study Team further analyzed the proposed SWM locations along the MD 175 corridor. Preliminary analysis determined, in the Brock Bridge Road to Sellner/Race Road area because of availability of open space, that the area is an optimal location for a SWM facility. It is hoped that the facility can be coordinated and work in conjunction with the proposed Clarks 100 development. During the Final Design process, a more detailed analysis will be performed to see if the site can be relocated or made more linear. Please understand that it is SHA's mission to take all reasonable measures to avoid impacts to existing properties and to provide fair market compensation for property impacts that cannot be avoided.

V. AGENCY CORRESPONDENCE AND COORDINATION

Coordination with cooperating agencies, environmental resource agencies, elected officials, community organizations, and the public has been an important component of the MD 175 project. This section summarizes the coordination with federal, state, and local agencies since the approval of the EA.

A. Streamlined Process Coordination

As part of Maryland's Streamlined Environmental and Regulatory Process, interagency meetings were held at critical points during project planning to keep the involved parties informed and solicit feedback. Milestone documents were also submitted to agencies for their review and comment.

The EA includes the streamlined process coordination for the Purpose and Need and ARDS. Since the approval of the EA in June 2008, SHA presented the Preferred Alternative/Conceptual Mitigation (PA/CM) to the agencies. The PA/CM was presented to the agencies at the Interagency Review Meeting on November 18, 2009 and represented on October 20, 2010. The second presentation was required to update the group on changes to the project related to SWM for Environmental Site Design (ESD), the Parkside Development and SHA's BRAC intersections. Additionally a field review was conducted on November 10, 2010, that gave the agencies the opportunity to review the proposed ESD locations and any associated impacts. Following the October 20 and November 10, 2010 meetings, the interagency group decided that the changes were minor and their original concurrences were still valid. **Table 13** provides a list of agency correspondence on the PA/CM. **Appendix H** provides a copy of the PA/CM summary as well as all written agency correspondence.

B. Government Agencies and Elected Officials Comments

A summary of correspondence from SHA to government agencies and elected officials since the Location Design Public Hearing is included in **Table 14**. A complete copy of agencies' written comments and SHA's response to each is provided in **Appendix G**.

Mitigation for adverse effects to Trusty Friend by the Preferred Alternative is being coordinated through an MOA (see **Appendix F**) between SHA and MHT, with the appropriate Section 106 consulting parties.

Table 13. PA/CM Agency Correspondence

PA/CM Correspondence Type	From	Date
Concurrence	Federal Highway Administration	2/24/11
Concurrence	National Park Service	1/22/10
Concurrence	U.S. Fish and Wildlife Service	1/25/10
Concurrence	U.S. Army Corps of Engineers	2/24/10
Concurrence	U.S. Environmental Protection Agency	4/26/10
Concurrence	Maryland Department of the Environment	12/20/10
Concurrence	Maryland Department of Natural Resources	5/17/10
Comments	Maryland Historical Trust	1/20/10
Comments	Maryland Department of Planning	3/22/10
Comments	Baltimore Metropolitan Council	5/10/10
Memorandum of Agreement	Fort George G. Meade	10/13/10
Wetland/Stream Mitigation Field Review Meeting Minutes	SHA	08/14/09

Table 14. SHA Correspondence to Government Agencies and Elected Officials

Date	To	Comment
06/20/08	Honorable James E. DeGrange, Sr.	Letter from SHA responding to Senator DeGrange's request to coordinate with Fort Meade about changing the installations primary access from MD 175 to MD 32.
08/08/08	Odenton Heritage Society	Letter from SHA responding to Odenton Heritage Society's comments regarding the MD 175 ARDS and potential impacts within Odenton.
12/03/08	Jessup Improvement Association, Inc.	Letter from SHA responding to Jessup Improvement Association's request to evaluate roundabouts west of MD 295.
04/27/10	Maryland Department of Planning (MDP)	Letter from SHA to MDP soliciting Priority Funding Areas (PFA) Act compliance regarding the MD 175 project in Anne Arundel County.
05/26/10	Maryland Department of Transportation (MDOT)	Letter from MDP stating they concur that the MD 175 Project locates inside the PFAs; it [the project] complies with COMAR 11.04.13 – Smart Growth Regulations and the 1997 Priority Funding Area Law.

Date	To	Comment
11/05/10	Maryland Historical Trust (MHT)	Determination of effects letter from SHA to MHT requesting their concurrence with SHA's determination of no adverse impact and notice that SHA intends to request FHWA make a *de minimis* impact finding for minor Section 4(f) use of B/W Parkway, Jones House, and Odenton Historic District. (Includes 10/26/10 DOE form for James Temple Property)
11/05/10	Ms. Elizabeth Brown and Ms. Sarah Shannon, Trustee	Letter from SHA (with copies to MHT) to Ms. Brown and Ms. Shannon, owners of Trusty Friend property, regarding MHT's adverse effect determination on Trusty Friend by the MD 175 project. Letter serves as invitation to participate in the Section 106 process as a Consulting Party.
11/08/10	National Park Service (NPS) – National Capital Region	Letter from SHA: 1) requesting NPS concurrence that minor impacts by the MD 175 project to Baltimore-Washington (B/W) Parkway will not impair the remaining portion of that property; 2) informing NPS of SHA's intent to propose a *de minimis* impact finding to FHWA for the use of the park property; and 3) requesting concurrence that the B/W Parkway property was not acquired or developed with any Section 6(f) or Program Open Space funding.
11/10/10	Regulatory Agencies	Meeting minutes from November 10, 2010 ESD/woodland impact field review meeting.
11/22/10	SHA	NPS Concurrence re: 11/08/10 request letter
12/2/10	MHT	Updated request for effects concurrence sent to MHT with expanded APE.
12/6/10	Meeting Attendees	Meeting minutes from meeting with JIA
12/21/10	SHA	MHT Concurrence re: 11/5/10 and 12/2 10 effects determination request letters from SHA
2/8/2011	Meeting Attendees	Meeting minutes from JIA Briefing
2/17/2011	SHA	ACHP Response *(declined participation)*
See Appendix E	SHA/MHT	Section 106 Memorandum of Agreement