Environmental Assessment

I-95, North of MD43 to North of MD22

INTERSTATE 95

SECTION 200

Maryland Transportation Authority

November 2007

SECTION 200: I-95, From North of MD 43 to North of MD 22

Baltimore and Harford Counties, Maryland

Environmental Assessment (EA)

Submitted Pursuant to 42 U.S.C. 4332 (2) and
CEQ Regulations (40 CFR 1500 (et.seq.))

by the Maryland Transportation Authority

for the
U.S. Department of Transportation – Federal Highway Administration and
in cooperation with
The U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency

Ronald L Freeland 11/27/07

MARYLAND TRANSPORTATION AUTHORITY Date
Ronald L. Freeland, Executive Secretary

William A. Wade 11/28/2007

FEDERAL HIGHWAY ADMINISTRATION Date
BOT Nelson Castellanos, Division Administrator, Maryland Division

The purpose of the proposed action is to address capacity and safety needs on Section 200 and thereby improve access, mobility, and safety for local, regional, and inter-regional traffic, including passenger, freight, and transit vehicles. The study area for Section 200: I-95, North of MD 43 to North of MD 22 (hereinafter referred to as Section 200), is approximately seventeen miles long, extending north along I-95 from the New Forge Road overpass in Baltimore County to just north of the MD 22 interchange in Harford County. Currently the southbound lanes between MD 43 and MD 24 operate at a Level of Service (LOS) D to E during the AM peak hours and the northbound lanes operate at a LOS E during PM peak hours. If the capacity needs are not addressed, congestion is expected to increase by the planning horizon year 2030. In addition, crash rates are increasing, especially in the vicinity of the MD 152, MD 24, MD 543, and MD 22 Interchanges, where large volumes of merging, diverging, and weaving movements occur. This study examines safety and service improvements to reduce congestion on Section 200 by improving access, mobility, and safety. This study also examines opportunities to increase safety at the MD 152, MD 24, MD 543, and MD 22 Interchanges, as well as along the I-95 mainline.

SUMMARY

A. Administrative Action

( ) Environmental Impact Statement
(X) Environmental Assessment
( ) Finding of No Significant Impact
( ) Section 4(f) Evaluation

B. Additional Information

Additional information concerning this project may be obtained by contacting the following individuals:

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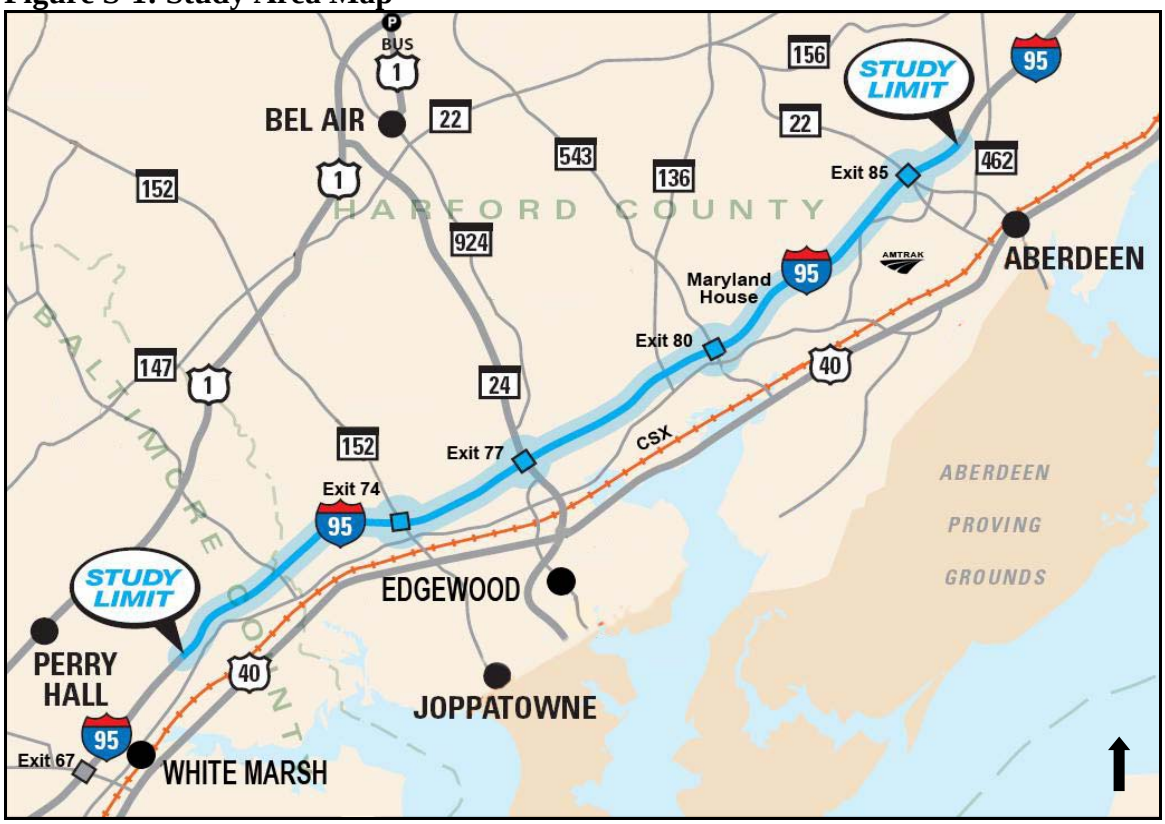
C. Description of Action

This Environmental Assessment (EA) presents the results of engineering and environmental studies to improve a section of I-95 in Maryland, from north of MD 43 in Baltimore County, to north of MD 22 in Harford County. The planning study and associated documentation have been performed and completed in accordance with the National Environmental Policy Act (NEPA), and address additional Federal and State laws including: Section 404 of the Clean Water Act, Section 106 of the National Historic Preservation Act of 1966, Title VI of the 1964 Civil Rights Act, the Clean Air Act as amended in 1990, Executive Order (EO) 12898 *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, the Maryland Environmental Policy Act (MEPA), the Uniform Relocation Assistance and Real Property Acquisition Policies Act as amended in 1987, Smart Growth Priority Funding Areas Act of 1997, and the 1992 Maryland Economic Growth, Resource Protection, and Planning Act.

The study area limits for Section 200 extend along I-95 from just north of MD 43 to north of MD 22. The Section 200 study area is approximately 17 miles in length and is located in Baltimore and Harford Counties, Maryland. The study area includes the MD 152, MD 24, MD 543, and MD 22 interchanges. **Figure S-1** illustrates the study area in the context of the surrounding geographic region and transportation network.

Figure S-1: Study Area Map



D. Project Description

The proposed action involves the study of potential improvements to I-95, from north of MD 43 to north of MD 22, in Baltimore and Harford Counties, Maryland for a length of approximately 17 miles. Within the study limits, grade separated interchanges are located at the intersections of MD 152, MD 24, MD 543, and MD 22. Additionally, the Maryland House Travel Plaza is located in the median of I-95 between MD 543 and MD 22. For project planning purposes, this portion of I-95 will be referred to as "Section 200."

E. Description of Alternatives

The Authority, in cooperation with the Federal Highway Administration (FHWA) and the Maryland Department of Transportation (MDOT), developed the I-95 Master Plan study approach to comprehensively identify long-range transportation needs and establish clear goals for system maintenance, preservation and enhancement, while ensuring the development of environmentally sensitive and intermodal-friendly solutions. The I-95 Master Plan included 50 miles of I-95 from the I-95/I-895(N) Split in Baltimore City to the Delaware State Line.

The Authority adopted the I-95 Master Plan in April 2003. The I-95 Master Plan recommended three concepts for further study, including the No-Build, General Purpose Lanes, and Managed Roadways Concepts. The recommendation to carry these three concepts was concurred upon by the FHWA, EPA, USACE, NMFS, MDE, and DNR during the development of the I-95 Master Plan. Additional agency concurrence was also provided at that time for the purpose and need for the I-95 improvements and the termini, included in the *Description for Logical Termini* dated July 2001. The Logical Termini identified four independent segments of I-95 referenced as Section 100, Section 200, Section 300, and Section 400. A separate action was approved for Section 100 from the I-95/I-895 (N) Split to north of MD 43. The Selected Alternative for Section 100 was the Express Toll Lanes Alternative. These improvements currently under construction are scheduled for opening in 2011. This report documents the study completed for the independent Section 200 study area. The alternatives under consideration included the No-Build Alternative, the General Purpose Lanes (GPL) Alternative, and the Express Toll Lanes (ETL) Alternative.

1. No-Build Alternative

The No Build Alternative maintains I-95 and the existing interchanges the same as they are today. Under this alternative, I-95 in each direction would maintain four (GPLs) from north of MD 43 to MD 24, and three GPLs from MD 24 to the project limits north of MD 22. Under the No-Build Alternative the existing interchanges will remain the same. Routine maintenance and safety upgrades will be done as needed.

2. General Purpose Lane Alternative

The General Purpose Lane Alternative would add additional GPLs to I-95 to accommodate the projected increase in traffic. Under this alternative, I-95 in each direction would have six GPLs from north of MD 43 to MD 24, five GPLs between MD 24 and MD 543, and four GPLs from MD 543 to north of MD 22. The four GPLs would transition back to the existing three lanes north of MD 22.

3. Express Toll Lane Alternative

The Express Toll Lane Alternative would provide a combination of GPLs and ETLs to I-95 to accommodate the projected increase in traffic. Under this alternative, I-95 in each direction would have two ETLs from north of MD 43 (where Section 100 ends) to MD 543. This alternative would include four GPLs from north of MD 43 to MD 24, three GPLs from MD 24 to MD 543 where the ETLs end, and four GPLs from MD 543 through MD 22. The four GPLs would transition back to the existing three lanes north of MD 22.

4. Interchange Options

With both the GPL Alternative and ETL Alternative, various interchange options were evaluated. The interchange options were evaluated based on environmental impacts, traffic forecasts, operation and mobility through various ramps and adjacent intersections, community concerns, safety, and costs. The interchange options retained for detailed study include:

GPL	ETL
• **MD 152: Option 1**	• **MD 152: Option 1A**
• **MD 152: Option 4**	• **MD 152: Option 4A**
• **MD 24: Option 2**	• **MD 24: Option 2**
• **MD 543: Option 1**	• **MD 543: Option 7A**
• **MD 543: Option 7**	• **MD 22: Option 1**
• **MD 22: Option 1**	

5. Park and Ride Facilities

Park and Ride facilities are located at each of the existing interchange locations. Each park and ride facility was analyzed based upon a 10 year trend usage, transit compatibility, and future needs. Based upon the study, new park and ride facilities are proposed at MD 152 and MD 24. Several sites were evaluated for each location. The sites were evaluated based upon meeting the number of parking spaces required, access, transit service, environmental impacts, compatibility with adjacent land uses, and availability of the properties. The impact analysis for the proposed park and ride facility at MD 152 and MD 24 are included in the interchange impact analyses.

E. Alternative Comparison

To compare impacts to environmental resources for each mainline Build Alternative, each mainline Build Alternative will include the interchange option with the largest footprint possible, identifying a worst-case impact at each location. The MD 152 Option 4, MD 24 Option 2, MD 543 Option 1, and MD 22 Option 1 were included with the General Purpose Lanes Alternative in calculating impacts. The MD 152 Option 4A, MD 24 Option 2A, MD 543 Option 7A, and MD 22 Option 2 were included with the Express Toll Lanes Alternative. All impacts calculated for the interchange options for the I-95/MD 152 and I-95/MD 24 Interchanges include impacts for proposed park & ride facilities.

1. Environmental Impacts

Table S-1 summarizes the environmental impacts associated with each Build Alternative.

Table S-1. Environmental Impacts

RESOURCE CATEGORY	No-Build Alternative	General Purpose Lanes Alternative	Express Toll Lanes Alternative
NR/NRE Historic Sites Impacted (number)	0	0	0
NR/NRE Archaeological Sites Impacted (number)	0	0-1	0-1
Prime Farmland Soils (acre)	0	48.3	68.1
Stream Impacts (linear feet)	0	9,500	16,000
Floodplain (acre)	0	3.9	7.7
Woodland (acre)	0	72	122
Wetlands (acre)	0	0.5	1.3
Threatened/Endangered Species Impacts (species)	0	0	0
Air Quality Impacts (sites exceeding CO S/NAAQS)	N/A	0	0
Noise Impacts (number)	N/A	6 NSAs	7 NSAs
Section 4(f) Resource Impacts (acre)	0	0	0

2. Communities/Right-of-Way (ROW) Impacts

Table S-2 summarizes the ROW and community impacts associated with each mainline Build Alternative. Most of the ROW impacts for the Build Alternatives include linear strips of land along the mainline, polygonal sections of land required for stormwater management facilities and park and ride lots, and additional land required for new ramp configurations for the proposed interchange improvements.

There is one commercial displacement associated with the proposed improvements at the I-95/MD 24 Interchange for both of the Build Alternatives. There will be one impact to a Community Facility. The Trinity Baptist Church's undeveloped potion of their property will be impacted due a proposed park and ride lot in that location. Trinity Baptist Church views the placement of the park and ride on their property as a benefit because they will have access to it for additional parking on the weekends and for special events. Neither of the Build Alternatives will divide/disrupt any of the communities in the study area.

Table S-2. Communities/Right-of-Way (ROW) Impacts

RESOURCE CATEGORY	No-Build Alternative	General Purpose Lanes Alternative	Express Toll Lanes Alternative
Total ROW	0	32.7	52.6
Number of Properties Impacted	0	50-55	80-85
Residential Displacements	0	0	0
Commercial Displacements	0	1	1
Environmental Justice	0	0	0
Community Facilities and Services	0	1	1
Community Disruption	0	0	0

3. Traffic Operations and Safety

The Build Alternatives produce significant improvements over the No Build Alternative in both travel times and speeds along I-95 in the year 2030 (**Table S-3**). In 2030, the use of ETLs over GPLs during peak periods can reduce the travel time up to 11 minutes and increase travels speeds as much as 25 MPH.

Table S-3. Estimated Travel Speeds and Times for 2030

		From MD 543 to the I-95/I-895 (N) Split (18 miles) in the Peak Direction		
		Travel Time	**Travel Speed**	**Level of Service Range**
Existing		24 Min	60 MPH	C to E
2030 No Build		57 Min	15 MPH	F
2030 General Purpose Lanes Alternative	**Section 100 and 200 GPLs**	29 Min	40 MPH	C to E
	Section 100 ETL and Section 200 GPLs	21 Min	55 MPH	
2030 General Purpose Lanes Alternative	**Section 100 and 200 GPLs**	33 Min	35 MPH	C to E
	Section 100 and 200 ETLs	18 Min	65 MPH	A to C

Because the ETLs offer shorter travel times than GPLs, the use of ETLs by commuter bus services will not only reduce trip time but also produce transit trips that are more consistent and reliable. The ETLs, in conjunction with the proposed park and ride lots, will also promote carpooling. It is anticipated that transit ridership and car pooling will

decrease with the No-Build Alternative, maintain similar with the General Purpose Lanes Alternative, and increase with the Express Toll Lanes Alternative.

Along the southern portion of the study area, the General Purpose Lanes Alternative proposes six contiguous GPLs while the Express Toll Lanes Alternative only has two contiguous ETLs and four contiguous GPLs. By reducing the number of lanes a motorist needs to traverse, the Express Toll Lanes Alternative increases the safety of motorists that need to cross lanes to reach the shoulder during emergencies. Also, because there are shoulders provided for both the ETLs and GPLs in the Express Toll Lanes Alternative, the alternative provides increased areas of refuge.

The Express Toll Lanes Alternative provides the most benefit the EMS vehicles compared to the General Purpose Lanes Alternative. The barrier separation provides the opportunity of the EMS vehicles to avoid congestion delays and arrive at the emergencies quicker.

4. Costs

Studies have found that the average driver in an ETL facility will typically use the ETLs only 2-3 times per week. There is a perception that the inclusion of toll lanes would only benefit the wealthy. FHWA studies have found nearly ¾ of ETL users are low-middle income motorists. The ETLs will allow transit users to realize the time savings without paying the toll.

The estimated cost for the General Purpose Lanes Alternative is $1.35 billion and the estimated cost of the Express Toll Lanes Alternative is $1.62 billion. These costs include engineering, additional ROW, construction, maintenance of traffic, environmental mitigation, noise walls, landscaping, utilities, and park and ride lots.