



I-895(N) Split to the Delaware State Line

A. BACKGROUND/PROJECT AREA

1. Maryland Transportation Authority

Since 1971, the Maryland Transportation Authority (Authority) has been responsible for supervising, financing, constructing, operating, maintaining and repairing their seven tolled roadway facilities within the State of Maryland. The Authority's seven toll facilities include a turnpike, two tunnels, and four bridges that serve as vital links in the State's transportation network (see Figure A-1).

Construction of the Authority's toll facilities was financed through revenue bonds. All of the Authority's facilities and services are funded through tolls paid by the customers who use the seven facilities, as well as rentals, fees, and other charges and revenues. Although many transportation projects financed by the Authority are serviced by a discrete revenue stream, tolls are the primary source of revenue for the Authority.

Terminal at the Port of Baltimore. The Baltimore/Washington International Airport (BWI) has also been the recipient of project financing for various projects.

The Authority is authorized to issue revenue bonds to finance transportation facilities projects. The revenue bonds are repaid through the collection of tolls, user fees and other charges and revenues from the customers who utilize the projects.

Acting on behalf of the **Maryland Department of Transportation** (MDOT), the Authority participates in the financing and construction of capital projects to improve Maryland's transportation system. MDOT has five modal administrations including the **Maryland Aviation Administration** (MAA), **Maryland Port Administration** (MPA), the **Maryland State Highway Administration** (SHA), the **Maryland Transit Administration** (MTA), and the **Motor Vehicle Administration** (MVA). Previous MDOT projects for which the Authority has provided financing include the Seagirt Marine Terminal and Masonville Automobile

The Authority is one of 17 toll authorities/agencies in the northeastern United States, participating in the E-ZPassSM InterAgency Group (IAG). The IAG members have worked together to implement a seamless compatible, and reciprocal electronic toll collection system from Maine through Maryland. All 17 IAG members have installed or are in the process of installing electronic toll collection systems with compatible technology. As of May 2002, E-ZPassSM was available at all seven of the Authority's toll facilities.

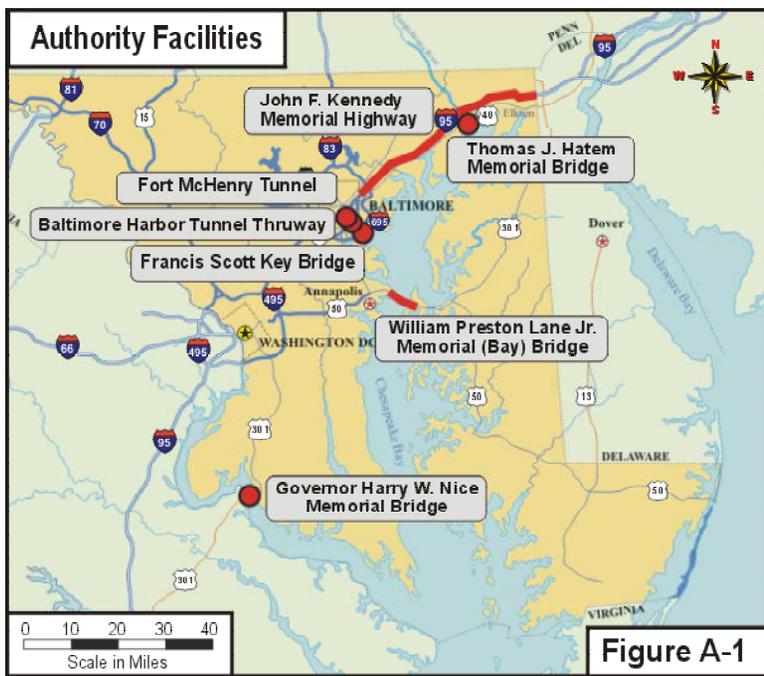


Figure A-1

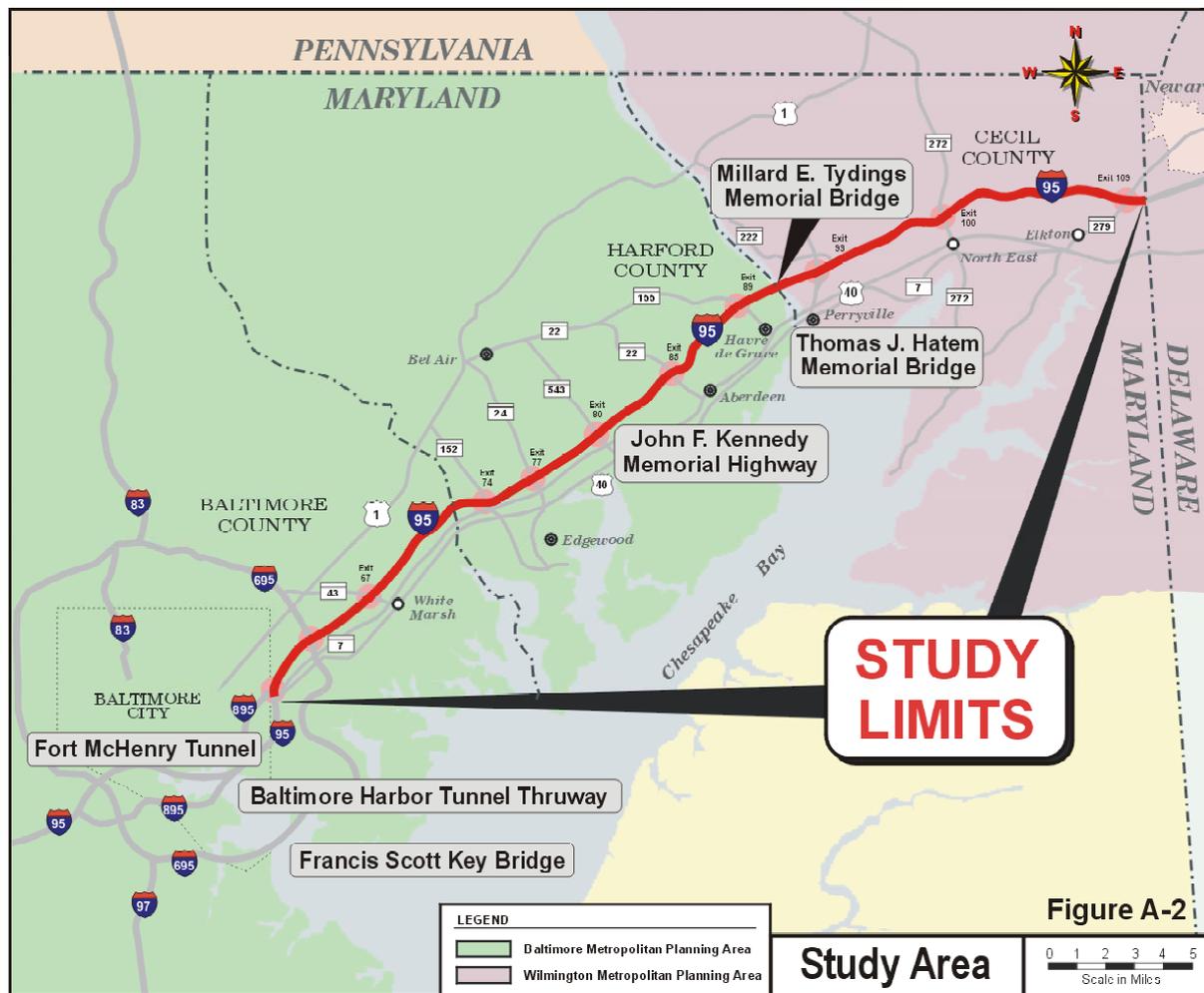


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2. Study Area

Within the State of Maryland, I-95 extends 110 miles from the southern entry point at the Woodrow Wilson Bridge (connecting to Alexandria, Virginia) to its northern exit point at the Delaware state line. As shown in Figure A-2, the study area for the I-95 Master Plan encompasses the northernmost 49-miles of I-95 within Maryland, beginning at the I-895 (N) Split, on the northern side of Baltimore City and continuing northeast through Baltimore County, Harford County, across the Susquehanna River on the Millard E. Tydings Memorial Bridge, and through Cecil County to the Delaware state line. The study area includes 11 interchanges, two rest areas located in the median (Maryland House and Chesapeake House), a northbound toll plaza, a northbound/southbound truck weigh station just north of the Susquehanna River, and a one mile long bridge across the Susquehanna River. The southern 16 miles of I-95, from I-895(N) to MD 24, consist of four travel lanes per direction; the northern 33 miles provide three lanes per travel direction.

The I-95 study area lies within the areas of concern for two metropolitan planning organizations (MPO):



- the **Baltimore Regional Transportation Board (BRTB)** encompassing the Baltimore City, Baltimore County, and Harford County portions of the study area and
- the **Wilmington Area Planning Council (WILMAPCO)** encompassing the Cecil County portion of the study area.



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3. Regional Importance of I-95

Flowing virtually uninterrupted along the length of the East Coast, I-95 traverses 1,907 miles through 15 East Coast states, beginning in Miami, Florida, and ending in Houlton, Maine, near the Canadian border. The highway passes through areas that contain almost a quarter of the population of the United States. I-95 connects 13 major airports, 11 major seaports and over two dozen railway stations. Fourteen major metropolitan cities are also located along the way including: Miami, Florida; Jacksonville, Florida; Savannah, Georgia; Richmond, Virginia; Washington D.C.; Baltimore, Maryland; Wilmington, Delaware; Philadelphia, Pennsylvania; Newark, New Jersey; New York, New York; New Haven, Connecticut; Providence, Rhode Island; Boston, Massachusetts; and Portland, Maine.

Beginning at I-95's southern entry point into Maryland at the Woodrow Wilson Bridge, I-95 follows the eastern portion of the Capital Beltway (I-495) on the eastern side of Washington, D.C. It then travels 22 miles north to the Baltimore Beltway (I-695) around Maryland's largest city, Baltimore. From this point, traffic continues north via one of four routes: I-95 through Baltimore City via the Fort McHenry Tunnel; I-395, which branches off just before the tunnel and serves the Camden Yards/ Inner Harbor areas of Baltimore; I-895/Baltimore Harbor Tunnel Thruway also

through Baltimore City; or, I-695 East or West around Baltimore City.

After proceeding through the Fort McHenry Tunnel, I-95 continues north, interchanging with I-895 and I-695 before continuing to the Delaware state line. I-695 West connects travelers with I-70, I-795, I-83 and ultimately back to I-95. Traffic moving to the east on I-695 connects to I-97 before crossing the Francis Scott Key Memorial Bridge and then rejoining I-95.

The Fort McHenry Tunnel (I-95), Baltimore Harbor Tunnel Thruway (I-895) and Francis Scott Key Bridge (I-695) are toll facilities operated by the Authority.

South of the study area, in Baltimore City the **Port of Baltimore** is a major center for waterborne cargo transfer. One of the port's greatest advantages is its strategic mid-Atlantic location, immediately adjacent to major interstate roadways and an extensive freight rail network. Ranked with other U.S. seaports, the dollar value of total waterborne foreign cargo arriving at the Port of Baltimore is ninth nationally and fourth among eastern seaboard ports of entry.

In 1998, the Port of Baltimore handled more than 40 million tons of cargo:

- 33.2 million tons of bulk cargo imported and exported annually, and
- 6.9 million tons of general cargo imported and exported annually.

The top ten "destination" states in 1999 for annual truck commerce from the Port of Baltimore are shown in Table A-1.

<u>State</u>	<u>Number of Trucks</u>	<u>Percent</u>
Maryland	37,502	17.5
Pennsylvania	29,031	13.6
New York	25,958	12.1
New Jersey	22,013	10.3
Illinois	11,268	5.2
Ohio	10,535	4.9
California	9,640	4.1
Virginia	7,271	3.4
South Carolina	6,234	2.9
Connecticut	5,250	2.5
Totals	164,702	76.4 ²

Notes:
1. Source: 1999 Maryland Port Administration Statistics
2. Percentage is of total annual distribution out of Port of Baltimore, not just the Top Ten.



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Baltimore-Washington International (BWI) Airport is located to the south of Baltimore City in Anne Arundel County, Maryland. BWI passenger and cargo traffic utilizes I-95, MD 295, I-97, the Baltimore Beltway (I-695) or I-195 to access BWI.

The average number of passengers per day in 2000 was 53,700 or 19.6 million per year (a 12.4% increase over 1999). The airport handles fewer cargo flights than passenger flights, however, cargo traffic by weight is quite substantial. Approximately 260,000 tons of cargo moved through BWI in 2000 (a 6.4% increase over 1999).

4. Existing I-95

The 44-mile portion of I-95 between the MD 43 interchange and the Delaware state line was constructed by the Authority between January, 1962, and November, 1963, at a total cost of \$73 million. The highway was dedicated on November 14, 1963, by President John F. Kennedy, in one of his last public appearances before his assassination. The existing features for I-95 within the study area are briefly described in Table A-2. The **existing** lane configurations and interchange ramp arrangements for I-95 within the study area are shown on Figure A-3. Table A-3 briefly summarizes each of the eleven interchanges along I-95 within the study area.

Two other significant features along I-95 are the Susquehanna River crossing and the northbound toll plaza.

Susquehanna River Crossing (Mile Marker 91)

The existing I-95 crossing of the Susquehanna River is the Millard E. Tydings Memorial Bridge. The bridge was completed in 1963. The six-lane (without shoulders), 5,056-foot long bridge consists of three beam spans and 11 cantilever deck truss spans. Rehabilitated in the early 1990s, the bridge deck is expected to have a useful service life of about 30 years.

Northbound Toll Plaza (Mile Marker 93)

The existing Perryville Toll Plaza is a “one-way” toll collection facility consisting of twelve manual and electronic toll collection (ETC) lanes in the northbound direction. E-ZPassSM electronic toll collection is currently available on the John F. Kennedy Memorial Highway and is compatible with other E-ZPassSM facilities throughout the northeastern United States.

Adjacent to and within the toll plaza are complete weight and inspection stations utilizing weigh-in-motion and static scales. The weigh station is also the location of a pilot Commercial Vehicle Information System Network (CVISN) program utilizing electronic identification devices and databases to process commercial vehicle data through more than one state system. State to state

data transfer or "e-screening" includes cargo type, weight clearances and vehicle history.

Table A-2: Study Area Features of I-95

Limits	I-895 Split to MD 24	MD 24 to Delaware
Length	16 miles	33 miles
Number of Travel Lanes Per Direction	4	3
Interchanges	I-895 I-695 MD 43 MD 152 MD 24	MD 543 MD 22 MD 155 MD 222 MD 272 MD 279
Other Features		1 Toll Plaza (NB) 2 Rest Areas (in median) Millard E. Tydings Memorial Bridge

The portion of I-95 from I-895(N) to Delaware is generally a safe facility, as reflected by an overall accident rate that is below the statewide rate of 44.8 per 100 Million Vehicle Miles Traveled (MVMT) for similar interstate facilities.

Figure A-4 presents the existing levels of service (LOS) for the I-95 study area, ranging from LOS 'A' (free flow operation) to LOS 'F' (severe congestion).



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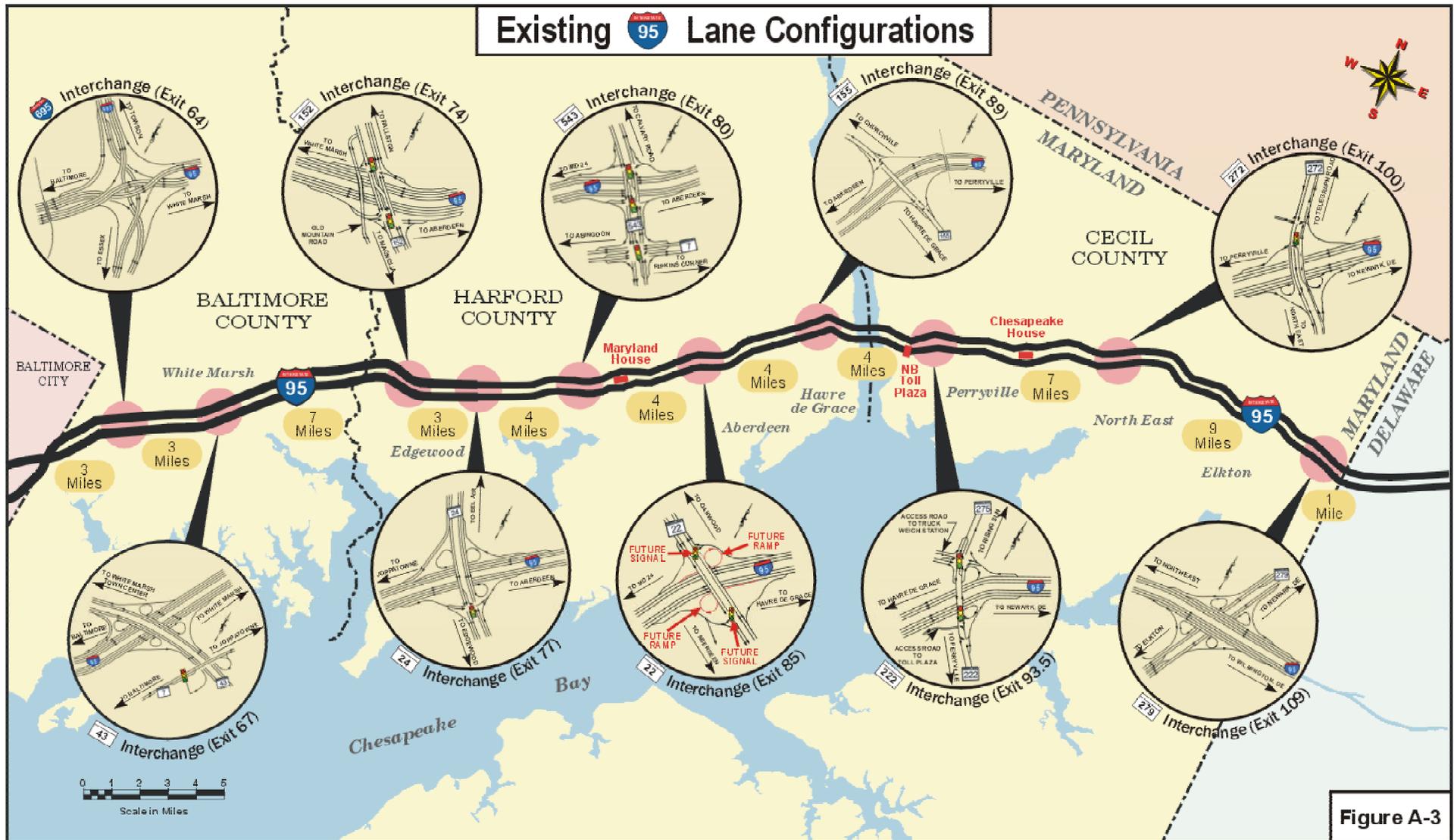


Figure A-3



I-895(N) Split to the Delaware State Line

**TABLE A-3
INTERCHANGES ALONG I-95 WITHIN STUDY AREA**

INTERCHANGE	EXIT NUMBER/ MILEMARKER (1)	AREAS OF SERVICE
I-895 / Harbor Tunnel Thruway	61	Baltimore City, Harbor Tunnel and areas South
I-695 / Baltimore Beltway	64	Inner and Outer Loops around Baltimore City
MD 43 (Whitemarsh Boulevard)	67	White Marsh & Middle River areas and Middle River Employment Center
MD 152 (Mountain Road)	74	Edgewood area, Fallston and Aberdeen Proving Grounds
MD 24 (Vietnam Veterans Memorial, Emmorton Road)	77	Bel Air and Edgewood
MD 543 (Creswell Road)	80	Riverside, Creswell, Churchville, and Perryman Areas
MD 22 (Churchville Road, Aberdeen Thruway Road)	85	City of Aberdeen, Aberdeen Proving Grounds, Ripken Stadium, Higher Education & Applied Technology Center (HEAT Center), Churchville
MD 155 (Level Road)	89	Havre de Grace, Webster, Churchville, and Susquehanna State Park
MD 222 (Perryville Road)	93	Perryville and Port Deposit
MD 272 (North East Road)	100	Town of Northeast, Rising Sun, Cecil County Community College, North East Commerce Center
MD 279 (Elkton Road)	109	Elkton, Appleton Business Park, and Newark, Delaware
(1) Mile Marker: Begins at 0 at the I-95 crossing of the Potomac River and ends at 110 at the Delaware state line.		



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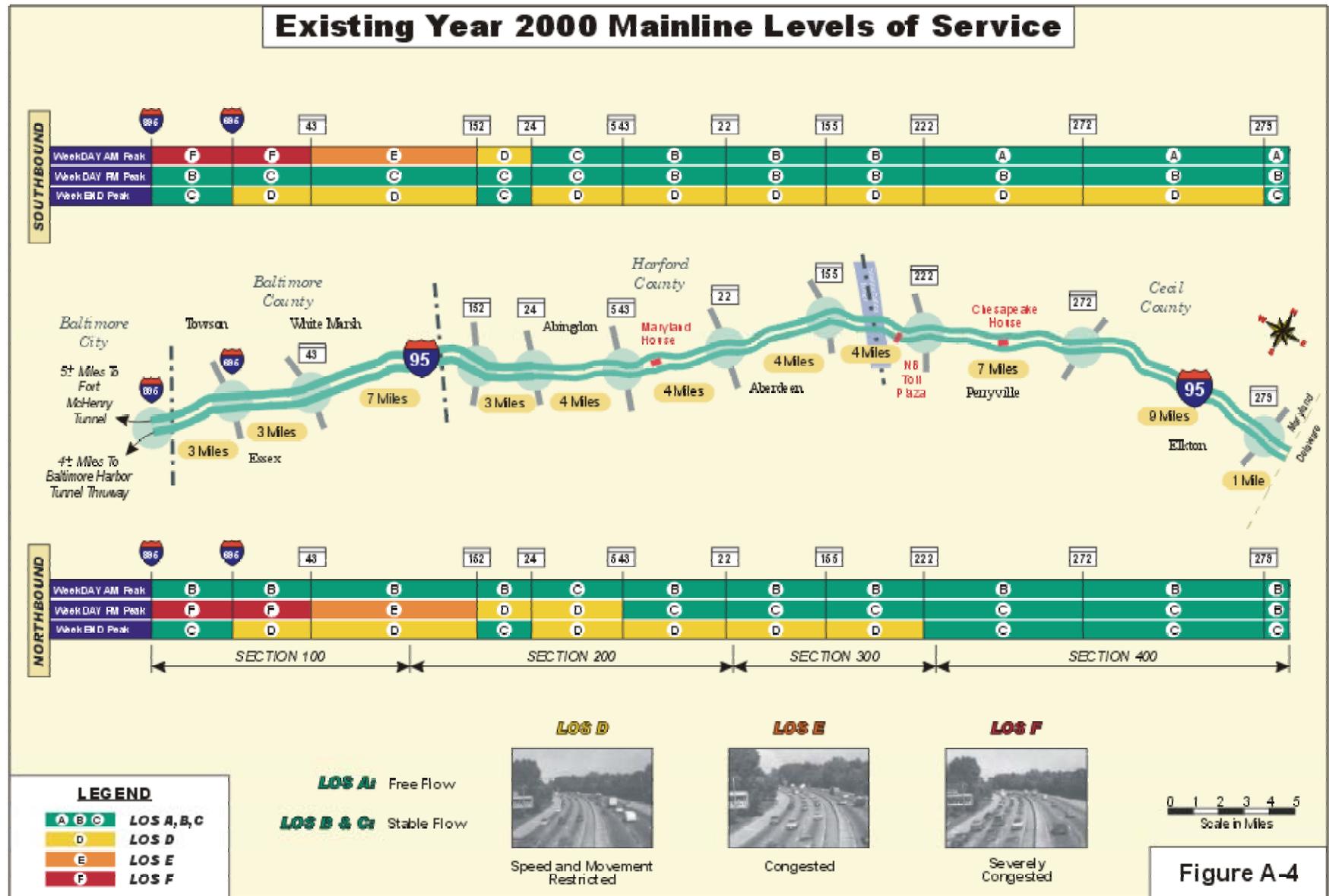


Figure A-4



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Parallel Highway Network

Although I-95 serves as the "backbone" to the transportation system in northeastern Baltimore County, Harford County, and Cecil County, a number of other critical state highways serve both local and regional traffic. These are as follows (please refer to Figure A-2):

US Route 40 parallels I-95 to the east, from Baltimore to Wilmington, Delaware. This highway traverses the entire continent, from the Boardwalk in Atlantic City, New Jersey to just east of Salt Lake City, Utah. US 40's western terminus was once the Golden Gate Park in San Francisco, California.

The Thomas J. Hatem Memorial Bridge, which carries US 40 across the Susquehanna River, is the oldest of the seven toll facilities operated and maintained by the Authority (opened in 1940). This bridge between Havre de Grace in Harford County and Perryville in Cecil County is 1.3 miles long, four lanes wide, and has a vertical clearance of 89 feet.

MD 7, completed in 1938, parallels I-95 to the east from Baltimore to Elkton in Cecil County. Also known as Philadelphia Road, MD 7 and US 40 are the same roadway from Aberdeen to Havre de Grace.

US 1 runs 2,377 miles from Key West, Florida, to Fort Kent, Maine. US 1 enters Maryland at Mount Rainier near the Washington, D.C. border,

paralleling I-95 to the west and proceeding north for 81 miles to Pennsylvania. The Conowingo Dam, which opened in 1928, is located eight miles upriver (west) of Havre de Grace and carries US Route 1 across the Susquehanna River.

5. Existing Transit Operations

Public and private transit alternatives are available to travelers within the study area. As shown in Figure A-5, a wide array of public bus and rail services are available. In addition, private bus and shuttle services are available to commuters and local travelers throughout the study area.

Three passenger rail services operate within the study area. Paralleling I-95, Amtrak's Northeast Corridor (NEC) is the most utilized rail line. The NEC carries 75 to 85 Amtrak passenger trains per day and represents 57% of Amtrak's passenger service nationally. The Maryland Transit Administration (MTA), Maryland Rail Commuter (MARC) Penn Line service utilizes the NEC to operate 42 passenger trains per day between Perryville, Cecil County and Baltimore or Washington, D.C. The Southeastern Pennsylvania Transportation Authority (SEPTA) R2 line also utilizes the NEC to operate 36 trains per day between Northern Delaware and Philadelphia. In Fiscal Year 2001, ridership on the R2 line was 2,750 daily trips. Numerous bus services travel on I-95 within the study area. The MTA's core bus service offers local

service nearly 24 hours a day. The four main routes through the study area have achieved an average daily ridership of nearly 40,000. MTA also offers a commuter bus service, running 6 routes in the study area, which carry over 1,600 passengers per day. Local service in Harford County and Cecil County include seven distinct routes, and serve nearly 700 passengers daily.

Greyhound and Peter Pan bus services provide inter-city service from Washington, D.C. to Boston, MA. Four stations within the study area are served at varying frequencies. Greyhound and Peter Pan serve 1.5 million people annually (See Appendix D.2).

6. Existing Freight Rail Operations

As shown in Figure A-6, freight rail service in the study area is provided by three major rail lines: Amtrak's NEC, CSXT's Philadelphia Subdivision, and Norfolk-Southern's (NS) Port Road Line. Amtrak's service is limited to high priority/low bulk and weight packages carried on freight cars attached to passenger trains. CSXT and NS operate 60 to 70 freight only trains per day within the study area. (See Appendix D.2).



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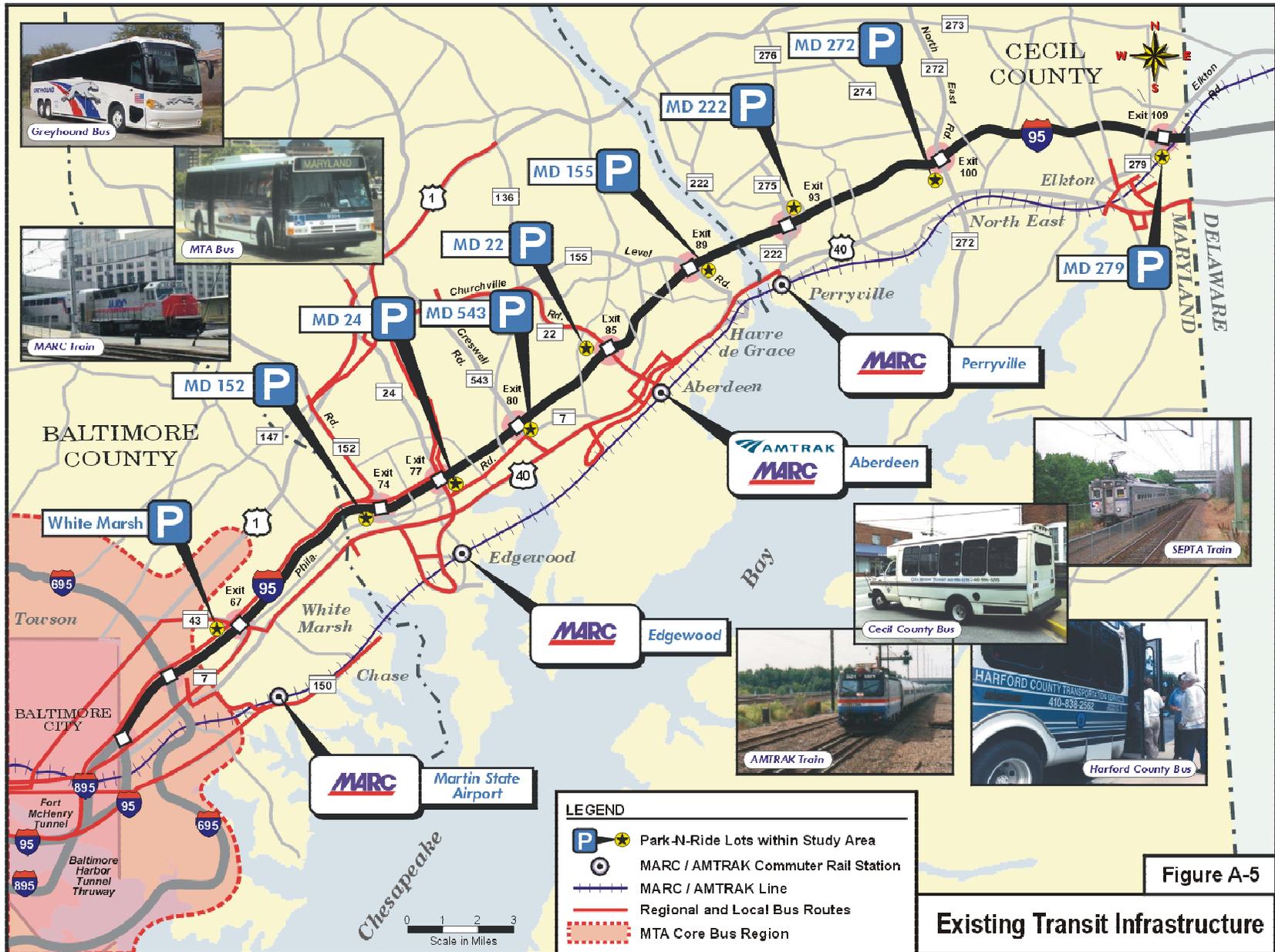
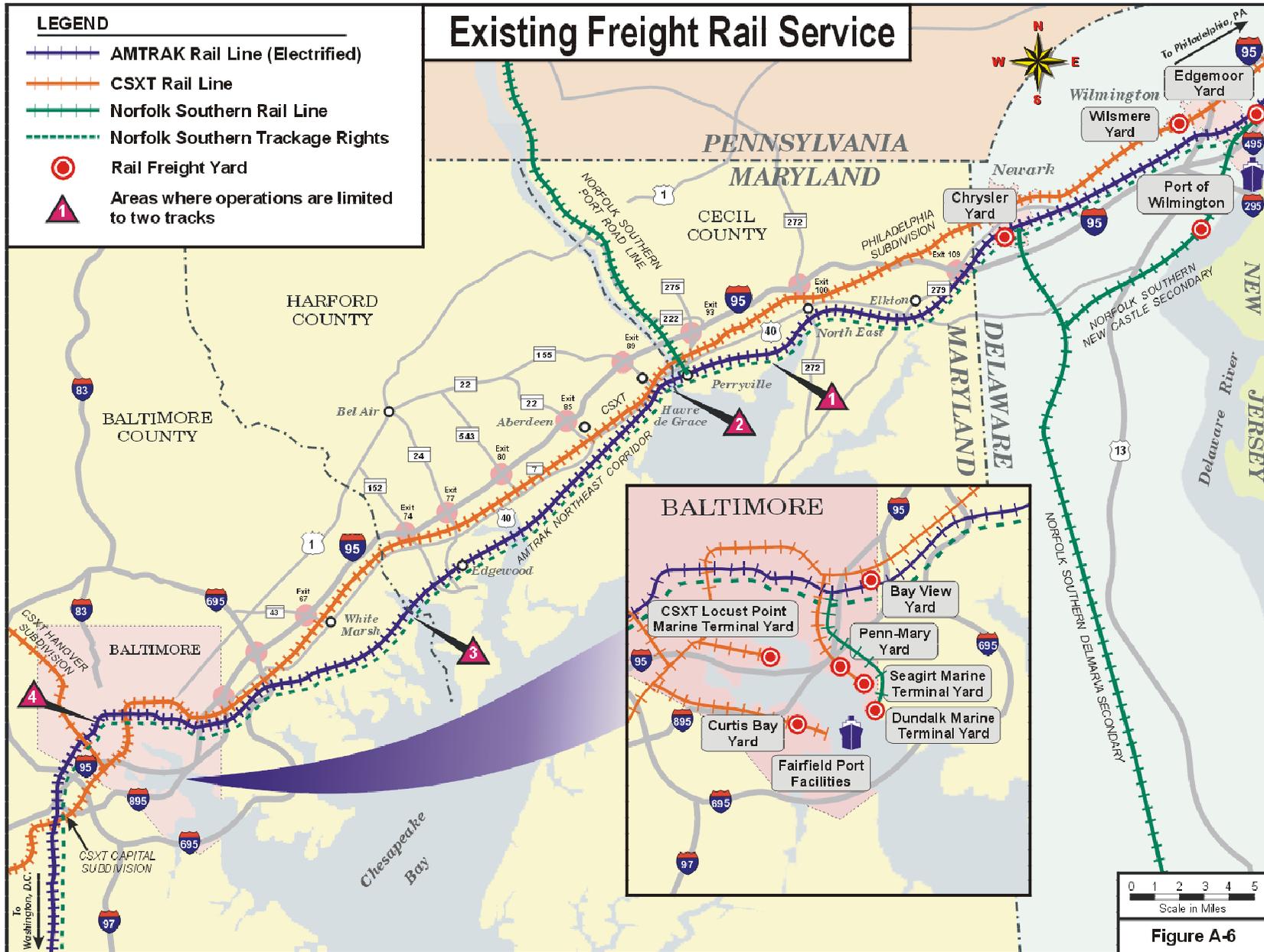


Figure A-5

Existing Transit Infrastructure



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7. Study Process and Concurrence Points

The Maryland Transportation Authority, in cooperation with the Federal Highway Administration and the Maryland Department of Transportation, developed a master plan approach to comprehensively identify long-range transportation needs; establish clear goals for system maintenance, preservation and enhancement, and ensure development of feasible, environmentally and intermodal friendly solutions for the I-95 study area. The master plan study process was developed in a manner consistent with the May 2000 streamlined guidelines developed by the Mid-Atlantic Transportation & Environmental (MATE) Task Force. MATE guidelines were established in response to the Transportation Equity Act for the 21st Century's (TEA-21) call for improved and earlier coordination among transportation decision-making agencies.

The Study Team conducted a workshop in October 2000 that was attended by federal, state and local regulatory agency representatives to establish the extent of studies to be performed and documented during the Master Plan development. At the workshop, attendees identified three concurrence points for the Master Plan process. Obtaining these three concurrence points early in the process is expected to streamline future project planning studies for potential improvements identified in the I-95 Master Plan. The three concurrence points are:

1. The (Master Plan) Study Area Purpose and Need Statement
2. Future Independent Project Purpose and Need Statement(s)
3. The Range of Modal Alternatives to be considered in the Future Independent Projects

The anticipated commenting/concurring agencies were expected to be:

Commenting Agencies

- National Park Service (NPS)¹
- Maryland Department of Planning (MDP)
- Maryland Historical Trust (MHT)
- Baltimore Metropolitan Council (BMC)
- Wilmington Metropolitan Area Planning Council (WILMAPCO)

-
- 1 National Park Service did not participate as no federal parks were identified within the study area.
 - 2 The Federal Transit Administration requested that their status be changed from a concurring agency to a commenting agency.
 - 3 The US Fish and Wildlife Service has requested a position of No Action due to their inability to provide staff to the Master Plan concurrence points.

Concurring Agencies

- Federal Highway Administration (FHWA)
- Federal Transit Administration²
- US Environmental Protection Agency (EPA)
- US Army Corps of Engineers (COE)
- US Fish and Wildlife Service (USFWS)³
- National Marine Fisheries Service (NMFS)
- Maryland Department of the Environment (MDE)
- Maryland Department of Natural Resources (DNR)

The Authority formally presented the I-95 Study Area Purpose and Need Statement (**concurrence point No. 1**) to federal, state and local agencies in February 2001. Agency comments/concurrence was requested by April 2001.

In June 2001, the Authority made a formal presentation to the same agencies on the Independent Purpose and Need Statements for Sections 100, 200, 300, and 400 (**concurrence point No. 2**).

The following Table A-4 highlights each agency's response status on concurrence points No. 1 and No. 2 (as of May, 2002). The concurring agencies have each concurred in writing with Concurrence Points No. 1 and No. 2. (See Appendix D.7 for a summary of comments and responses).



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TABLE A-4: STATUS OF COMMENT/CONCURRENCE FORMS

Agency	Contact Person(s)	Commenting Agency	Concurring Agency	Date Received					
				No. 1 Study Area Purpose & Need Statement	No. 2 Independent Project Purpose and Need Statements (Sections 100-400)				
					100	200	300	400	
FEDERAL AGENCIES									
1	National Park Service (NPS)	Cynthia Wilkerson	✓	No protected resource within study area.					
2	Federal Highway Administration (FHWA)	Nelson Castellanos; Dan Johnson; Steve Rapley		✓	4.26.01	9.17.01	9.17.01	9.17.01	9.17.01
3	United States Army Corps of Engineers (USACE)	Paul Wetlauffer		✓	3.22.01	8.28.01	8.28.01	8.28.01	8.28.01
4	National Marine Fisheries Service (NMFS)	John Nichols		✓	5.2.01	2.19.02	2.19.02	2.19.02	2.19.02
5	United States Environmental Protection Agency (USEPA)	Rich Pepino; Denise Rigney; Todd Lutte		✓		7.16.01	5.1.02	5.1.02	5.1.02
6	Federal Transit Administration (FTA) ¹	Gail McFadden-Roberts		✓	5.18.01	2.20.02	2.20.02	2.20.02	2.20.02
7	U.S. Fish and Wildlife Service (FWS) ²	Robert Zepp		✓	2.25.02	2.25.02	2.25.02	2.25.02	2.25.02
STATE AND REGIONAL AGENCIES									
8	Maryland Department of Natural Resources (DNR)	Ray Dintaman; Greg Golden; Dawnn McCleary (Chesapeake Bay Critical Area Commission)		✓	5.2.01	8.16.01	8.16.01	8.16.01	8.16.01
9	Maryland Historical Trust (MHT)	Elizabeth Cole	✓		4.24.01	4.23.02	5.3.02	5.3.02	5.3.02
10	Maryland Department of the Environment (MDE)	Elder Ghigiarelli; David Boellner		✓	5.2.01	4.22.02	4.22.02	4.22.02	4.22.02
11	Maryland Department of Planning (MDP)	Roy Kienitz; David Whitaker; Bihui Xi	✓		5.14.01	7.18.01	7.18.01	7.18.01	7.18.01
12	Baltimore Metropolitan Council/ Baltimore Regional Transportation Board (BMC/BRTB)	Craig Forrest; Paul Farragut; Regina Aris; Harvey Bloom	✓		3.27.01	7.18.01	7.18.01	7.18.01	N.A.
13	Wilmington Metropolitan Area Planning Council (WILMAPCO)	Ray Miller; Ted Matley; Tigist Zegeye	✓		6.12.01 and 7.31.01	N.A.	N.A.	N.A.	8.1.01

NOTES:

¹ The Federal Transit Administration requested that their status be changed from a concurring agency to a commenting agency.

² The US Fish and Wildlife Service has requested a position of No Action due to their inability to provide staff to the Master Plan concurrence points.



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As presented in the Master Plan Study **PURPOSE AND NEED STATEMENT** (dated March 16, 2001), the goals of the Master Plan Study are to:

- Encourage early participation by State/Federal DOTs, MPOs and State/Federal Resource/Regulatory Agencies involved in transportation decision-making processes;
- Identify long-range transportation needs of the I-95 study area through a preliminary identification of issues such as Congestion Management System (CMS) recommendations, transit opportunities, Smart Growth, natural/cultural resources and socioeconomic issues;
- Develop and obtain concurrence on a Study Area Purpose and Need statement;
- Develop and obtain concurrence on the range of modal alternatives to be evaluated during future independent projects;
- Develop and obtain concurrence on future independent project(s) purpose and need statement(s);
- Streamline the project planning process for future independent project(s) through the early identification of key environmental and community concerns; and,

- Establish implementation schedules for future independent project(s) and document a strategic plan for I-95 related improvements through 2020.

Discussion of Independent Sections

An analysis of logical termini for future project planning studies was developed. Prepared in accordance with FHWA's Technical Memorandum "Guidance on the Development of Logical Project Termini" (1993) the logical termini analysis identified "(1) rational end points for a transportation improvement, and (2) rational end points for a review of the environmental impacts," with the latter frequently covering "a broader geographic area than the strict limits of the transportation improvements."

As part of the study process, environmental considerations have been a key element in recommending improvements for the I-95 Master Plan. This helped to ensure that improvements will be done in a more environmentally responsible manner. A "Description of Logical Termini" (July 5, 2001) paper for the I-95 study area compared the proposed future independent project logical termini (based upon study area transportation needs) to watershed boundaries as an indicator of whether the logical termini are sufficient in assessing the environment on a broad scope. On the basis of this analysis, four (4) sections for

future project planning studies were identified; Figure A-7 and the accompanying text summarize the key features along I-95 within each of the four study sections:

Section 100: I-895(N) to north of MD 43 near New Forge Road (8 miles)

Addresses the existing level of service need in the study area, and three interchanges with recurring accident patterns. Supports two major economic developments in Baltimore County.

Section 200: North of MD 43 to north of MD 22 (16 miles)

Addresses the level of service "F" severe congestion condition and associated safety concern that will occur daily beginning in 2010. Supports economic development in two approved growth areas in Harford County.

Section 300: North of MD 22 to north of MD 222 (9 miles)

Addresses undesirable level of service "F" severe congestion conditions that will occur on weekends beginning in 2015. Addresses current safety concerns on the Millard F. Tydings Memorial



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Bridge and recurring accident patterns at the Toll Plaza. Supports economic development proposals in Havre de Grace and Bainbridge.

Section 400: North of MD 222 to Delaware state line (16 miles)

Addresses undesirable level of service "F" severe congestion conditions that will exist between MD 222 and MD 272 in 2020. Future improvements to I-95 north of MD 279 will be coordinated with the Delaware Department of Transportation to avoid construction that could result in an incompatible transition from Maryland to Delaware.

The study team then developed Independent Project Purpose and Need Statements for each of these sections. As noted on Table A-4, each concurring and commenting agency has reviewed and concurred on these documents.



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Figure A-7



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Environmental Inventory

Figure A-8 summarizes the extensive environmental inventory that has been prepared for the I-95 study area.

The environmental analysis was conducted in accordance with the MATE Task Force directives, which emphasized the planning aspect of project development. Environmental concerns are a critical aspect of project planning efforts. This environmental inventory was compiled from readily available public information sources. The inventory is expected to enhance transportation planning efforts by promoting communication and coordination between all agencies.

Detailed mapping for the entire study area is available under a separate cover “*Environmental Inventory*” (June 2001). Each of the existing features identified and listed throughout the following discussion is located within a 1,000 foot zone around the existing I-95 roadway.

The majority of the environmental inventory information was obtained from the Maryland Department of Natural Resources (DNR) Technology Toolbox. Many points of additional information were obtained through other agencies. The following list highlights the source and definition/description of the information obtained and summarized on Figure A-8.

Sub-Aquatic Vegetation - DNR reprojections of the Virginia Institute of Marine Sciences areas designated as Sub-Aquatic Vegetation – April, 1997.

Floodplain - 100-year floodplain as reprojected by the DNR from the Federal Emergency Management Agency’s Floodplain Data, various independent dates, 1998 DNR toolbox.

Chesapeake Bay Critical Area - land area within 1,000-feet of the State Tidal Wetlands boundary of the Chesapeake Bay and its tributaries as defined by the Chesapeake Bay Critical Area Commission and DNR – July, 1997.

Non-Tidal Wetlands of Special Concern - certain wetlands with rare, threatened, endangered species or unique habitat in Maryland. The Maryland Department of the Environment is responsible for identifying and regulating these wetlands via United States Fish & Wildlife Service (U.S.F.W.S.) National Wetlands Inventory (NWI) wetlands identification. – 1998.

Threatened and Endangered Species - US Fish and Wildlife Service, Maryland Fisheries Resource Office, DNR (Wildlife & Heritage Division) have provided documentation of all species of concern in the I-95 study area.

NWI Wetlands – Records of wetland locations and classifications as defined by the U.S. Fish and Wildlife Service, reprojected by DNR – April 1997. Classifications include:

- Estuarine (Salt marshes & brackish tidal waters)
- Lacustrine (Lakes & deep ponds)
- Palustrine (Shallow ponds, marshes, swamps & sloughs)
- Riverine (Rivers, creeks, & streams)

DNR Wetlands - DNR wetland locations and classifications as defined by U.S. Fish and Wildlife Service. Classifications include:

- Estuarine (Salt marshes & brackish tidal waters)
- Lacustrine (Lakes & deep ponds)
- Palustrine (Shallow ponds, marshes, swamps & sloughs)
- Riverine (Rivers, creeks, & streams)

Natural Trout Waters - Streams identified by DNR as having a use classification suitable for trout habitat.

DNR-Owned Lands - Lands owned by the State of Maryland as defined by DNR, including proposed/planned acquisitions; also includes land identified as being part of the State Park System of Maryland – 1994/2000



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Sensitive Species Project Review Areas - DNR, Wildlife and Heritage Division, defined areas which contain identified species of special concern; plant or animal, DNR Technology toolbox 1998.

Threatened and Endangered Species - US Fish and Wildlife Service, Maryland Fisheries Resource Office, DNR (Wildlife & Heritage Division) have provided documentation of all species of concern in the I-95 study area.

Federally owned Lands - DNR reprojection of lands owned and/or operated by the U.S. Federal Government.

County Parks - Public recreation, areas defined by the counties of Baltimore, Cecil, and Harford as being owned by them. Reprojected by DNR - 1998.

Soils - U.S. Department of Agriculture, Natural Resource Conservation Service data on hydric soils. Prime farmland soils in Cecil and Harford counties, were not available in electronic format and therefore have not been included in this inventory.

Champion Trees - 2000, Champion Trees, obtained from DNR website.

Forest Interior Dwelling Species - species sites derived from criteria set forth by DNR.

Library - Libraries identified from the 2000, 1998 and 1994 ADC mapping.

Police - Station location of local and/or state police emergency service stations from the 2000, 1998 and 1994 ADC mapping.

Racial & Population Profiles - Information obtained from the 2000 Census Tract information, provided by the Census Bureau.

Secondary Schools - Names and locations of secondary schools from the 2000, 1998 and 1994 ADC mapping.

Primary Schools - Names and locations of primary schools from the 2000, 1998 and 1994 ADC mapping.

Poverty Level by Census Tract - Calculated from 2000 poverty level indicators provided by U.S. Department of Health and Human Services and 1990 Mean Household Income levels.

National Register of Historic Places - Properties listed in or determined eligible for the National Register of Historic Places by U.S. Department of Interior as significant in American history and culture. Maryland Historic Trust (MHT), State

Historic Preservation Office - October 1996, mapping.

Inventory of Historic Properties - Depictions of approximate locations of historic structures, monuments, districts, and other properties listed on the Maryland Inventory of Historic Properties maintained by MHT's Office of Research, Survey and Registration for each county - February 1997.

Archaeological Site Presence - MHT listing identifying presence of recorded archaeological sites within a digitized grid - December 1997.

Hazardous Facilities - Environmental Protection Agency (EPA), National Priority Listing (NPL) and Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) sites - Hazardous work sites mapped from EPA website data, 2001.

Park-n-Ride - State-owned park and ride facilities from the 2000, 1998 and 1994 ADC mapping and the MTA 1999 Facilities Manual.

Amtrak and Maryland Rail Commuter Services (MARC) Stations - Rail stations as shown in the 2000, 1998 and 1994 ADC maps and the MTA 1999 Facilities Manual.



I-895(N) Split to the Delaware State Line

Land Use - The land use/land cover classification scheme has been used to identify the predominant usage of land that could be interpreted from high altitude aerial photography and satellite imagery. In general, only land uses greater than 10 acres in size are shown – Maryland Department of Planning, 1997.

Agricultural Easements - Maryland Department of Agriculture projection of lands currently protected by the Agricultural Easement or District program.

Priority Funding Areas (PFA) - Locally defined and State approved areas where economic development and new growth is focused. Maryland Department of Planning, 1997.

Rural Legacy - Areas that meet DNR's guidelines for a land preservation program specifically designed to limit the adverse impacts of sprawl on agricultural lands and natural resources. Maryland Department of Planning, 1997.

Designated Neighborhoods - Areas in Maryland approved by the Department of Housing and Community Development for financial assistance – Maryland Department of Planning, 1997.

Enterprise Zones - Enterprise Zones and designated areas in each Maryland County and Baltimore City for which special tax incentives are available to industrial and commercial businesses that hire additional full time workers – Maryland Department of Planning, 1997.

Maryland Environmental Trust - Lands defined by Maryland Environmental Trust as being within their care and/or program.

Inner Beltway Area - Areas within the Baltimore and Capital beltways which have been identified as Priority Funding Areas – Maryland Department of Planning, 1997.

Historical Easements - Areas in which the landowner of properties individually listed on the National Register of Historic Places or located within locally certified or Register-listed historic districts have conveyed a perpetual historic preservation easement to the Maryland Historic Trust – February 1997.



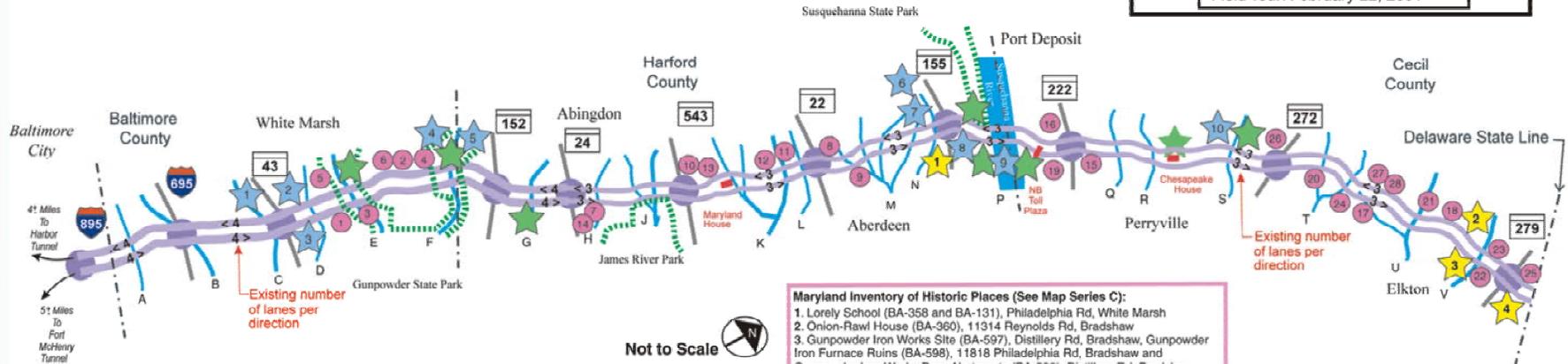
I-895(N) Split to the Delaware State Line

Environmental Overview Along the I-95 Master Plan Study Area

Legend (Locations are Approximate):

- Interchange
- I-95 Roadway
- County Line
- US Waterways within Study Area
- DNR Owned Land
- Sensitive Species Area within 1,000' of road
- Inventory of Historic Places within 1,000' of road
- National Register of Historic Places (NRHP) properties within 1,000' of road
- Rare, Threatened or Endangered Species Area within 1,000' of road

Regulatory Agency Working Group
Field Tour: February 22, 2001



Not to Scale

Stream Crossings within Study Area (See Environmental Inventory Mapping Series A):

A: Redhouse Creek, Use I NWI Riverine Wetland Stream 100 Year Floodplain	G: Winters Run, Use I-P Open Waters 100 Year Floodplain	N: Gasheys Creek, Use I DNR Riverine Wetland Stream DNR Palustrine Wetlands Present	T: Northeast Creek, Use I-P NWI Riverine Wetland Stream 100 Year Floodplain
B: Stemmers Run, Use I NWI Riverine Wetland Stream 100 Year Floodplain	H: Bynum Run, Use III NWI Palustrine Wetland Stream 100 Year Floodplain	O: Susquehanna River, Use I-P Open Water 100 Year Floodplain	U: Little Elk Creek, Use I-P Open Water 100 Year Floodplain
C: White Marsh Run, Use IV NWI Riverine Wetland Stream 100 Year Floodplain	I: James Run, Use I NWI Palustrine Wetland Stream 100 Year Floodplain	P: Mill Creek, Use I-P NWI Palustrine Stream 100 Year Floodplain	V: Big Elk Creek, Use I-P Open Water 100 Year Floodplain
D: Honeygo Run, Use IV NWI Riverine Wetland Stream 100 Year Floodplain	J: James Run, Use I NWI Palustrine Wetland Stream 100 Year Floodplain	Q: Swan Creek, Use I DNR Riverine Wetland Stream 100 Year Floodplain	W: Weaver House (CE-536), Bouchelle Rd, Bayview NWI Palustrine Wetland Present
E: Gunpowder Falls, Use I Open Waters 100 Year Floodplain Special Concerns Wetlands Present	K: Grays Run, Use I DNR Riverine Wetland Stream 100 Year Floodplain	R: Principio Creek, Use III Open Water 100 Year Floodplain	X: Little Elk Creek Historic District (CE-1296), Little Elk Creek Valley
F: Little Gunpowder Falls, Use III Open Waters 100 Year Floodplain NWI Palustrine Stream Present	L: Cranberry Run, Use I DNR Riverine Wetland Stream 100 Year Floodplain	S: Stony Run, Use I-P NWI Riverine Wetland Stream 100 Year Floodplain	

- Maryland Inventory of Historic Places (See Map Series C):**
- Lorely School (BA-358 and BA-131), Philadelphia Rd, White Marsh
 - Onion-Rowl House (BA-360), 11314 Reynolds Rd, Bradshaw
 - Gunpowder Iron Works Site (BA-597), Distillery Rd, Bradshaw, Gunpowder Iron Furnace Ruins (BA-598), 11818 Philadelphia Rd, Bradshaw and Gunpowder Iron Works Dam Abutments (BA-599), Distillery Rd, Bradshaw
 - Robert Howard Grist Mill (BA-600), Distillery Rd, Bradshaw
 - Moore's Orchard (BA-2142), 5225 Joppa Rd, Perry Hall
 - Bevard-Hooper House (BA-2217), 11122 Pfeiffer Rd, Upper Falls
 - Richard Cronin House, Royal Exchange (HA-721) Bryce Drive, Aberdeen
 - Donnell C. Mitchell House (HA-742), Paradise Rd, Aberdeen
 - J. M. Caudell House (HA-748), Chapel Rd, Aberdeen
 - Schissler-Cassidy House (HA-986), Creswell Rd, Abingdon
 - Laurence Kaimbacher House (HA-1303), 1543 Stegney Rd, Aberdeen
 - John Finney Wells House (HA-1555), Stegney Rd, Aberdeen
 - O'Neil Diekaon House (HA-1070) Creswell Road, Abingdon
 - St Francis de Sales Church (HA-1312), Abingdon Road, Abingdon
 - Ryan-Burroughs House (CE-114), Blythedale Rd, Blythedale and Taylor's Store Site (CE-143), Perryville Rd, Blythedale
 - Bartlett Log Cabin (CE-115) Blythedale Road, Craigtown
 - Willis House (CE-224), Deaver Rd and I-95, Leeds
 - Harvey Stone House (CE-418), Blue Ball Rd, Childs
 - Cokesbury Road Spring House (CE-525), Coaksbury Rd, Frenchtown
 - Weaver House (CE-536), Bouchelle Rd, Bayview
 - Childs Pony Truss Bridge, Little Elk Creek Bridge (CE-999), Blue Ball Rd, Childs
 - Wilson-Johnson-Smith House (CE-1071), Singery Rd, Singery
 - Tyson-Roark House (CE-1072), Singery Rd, Singery
 - Simpers Log House (CE-1078), Brownstown Lane, Union Valley
 - No Name (CE-1085), W. Chestnut Hill Rd, Iron Hill
 - Russell Log House Site (CE-1244), Old Bayview Rd, Bay Valley
 - Burns-Logan House (CE-1245), Baliff Rd, Bay Valley
 - Little Elk Creek Historic District (CE-1296), Little Elk Creek Valley

- Properties Listed on the National Register of Historic Places (See Map Series C):**
- Sion Hill Building and Site, NR-1100 (MHP# HA-525)
 - Heath Farm Jasper Quarry Site, NR-778
 - Heath Farm Camp Site, NR-777
 - Iron Hill Cut Jasper Quarry Site, NR-779

- Rare, Threatened or Endangered Species Areas:**
- Solidago hispida*, Hairy Goldenrod, Endangered Plant.
 - Mis Prismatic*, Slender Blue Flag, Endangered Plant.
 - Sterna antillarum*, Least Tern, Threatened Bird.
 - Matteucia struthiopteris*, Ostrich Fern, Rare Plant.
 - Polemonium vanbruntiae*, Jacobs Ladder, Threatened Plant.
 - Myosonium macrosperma*, Large-Seed Forget-Me-Not, Threatened Plant.
 - Graptemys geographica*, Map Turtle, Endangered Animal.
 - Graptemys geographica*, Map Turtle, Endangered Animal.
 - Shortnose Sturgeon, Rare Fish.
 - Swamp Pink, Threatened Plant.

Figure A-8