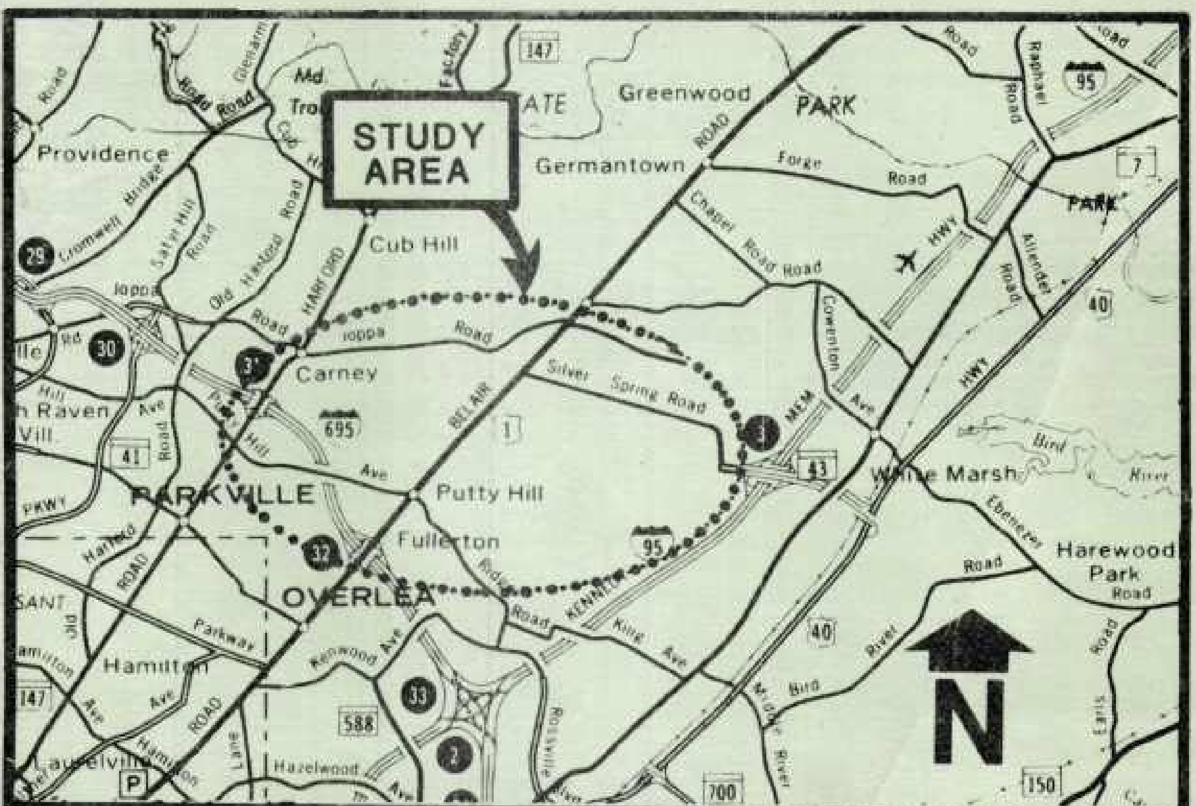
FINAL ENVIRONMENTAL IMPACT STATEMENT

CONTRACT NO. B 818-151-471

Maryland Route 43 Extended (Whitemarsh Boulevard) from Interstate Route 695 to Interstate Route 95

AND

U.S. Route 1 (Belair Road) Improvements from Interstate Route 695 to north of Silver Spring Road in Baltimore County, Maryland



prepared by
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

and
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

2

REPORT NUMBER: FHWA-MD-EIS-84-01-F

REGION III

MARYLAND ROUTE 43 EXTENDED
From West of U.S. Route 1 to Interstate Route 95
and
U.S. Route 1 (Belair Road)

FINAL ENVIRONMENTAL IMPACT STATEMENT
Submitted Pursuant to 42 U.S.C. 4332(2) (C)
23 U.S.C. 128 (a)
CEQ Regulations (40 CFR 1500 et seq.)
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
COOPERATING AGENCY
U.S. ARMY CORPS OF ENGINEERS

The following persons may be contacted for additional information concerning the document:

Mr. Edward Terry
Field Operations Engineer
Federal Highway Admin.
The Rotunda - Suite 220
711 West 40th Street
Baltimore, Maryland 21211
PHONE: (301) 962-4011
HOURS: 7:45 a.m.-4:15 p.m.

Mr. Louis H. Ege, Jr., Acting Chief
Bureau of Project Planning
State Highway Administration
707 North Calvert Street
Room 310
Baltimore, Maryland 21202
PHONE: (301) 659-1130
HOURS: 8:15 a.m.-4:15 p.m.

2/4/85
DATE

Neil J. Pedersen
DIRECTOR, OFFICE OF PLANNING AND PRELIMINARY ENGINEERING

2/28/85
DATE

Fred J. Hempel
FOR FEDERAL HIGHWAY ADMINISTRATION

The purpose of the project is to provide a western extension of existing Maryland Route 43 from I-95 to a connection with I-695 (Baltimore Beltway). The project also includes improvements to U.S. Route 1 from I-695 to North of Silver Spring Road. The project is compatible with existing and planned development.

Environmental impacts associated with the project include right-of-way acquisition and the displacement of residents and businesses. There are minor floodplain and wetland involvements. The Federal Design Noise Abatement Criteria would be exceeded at one site.

SUMMARY

SUMMARY

1. Action

Federal Highway Administration

Administrative Action Environmental Statement

( ) Draft (X) Final

( ) Section 4(f) Statement

2. Contacts

The following persons may be contacted for additional information concerning this document:

Mr. Edward Terry
Field Operations Engineer
Federal Highway Admin.
The Rotunda - Suite 220
711 West 40th Street
Baltimore, Maryland 21211
PHONE: (301) 962-4010
HOURS: 7:45 a.m. - 4:15 p.m.

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Bureau of Project Planning
State Highway Admin.
707 North Calvert Street
Room 310
Baltimore, Maryland 21201
PHONE: (301) 659-1130
HOURS: 8:15 a.m. - 4:15 p.m.

3. Description of Selected Action

The Selected Alternate involves the construction of a western extension of existing Maryland Route 43 along new alignment from I-95 to a connection to I-695 (Baltimore Beltway). An alternate will be selected for improvements to U.S. Route 1 from I-695 to north of Silver Spring Road during the design phases.

The Selected Alternates would improve traffic operations within the study area and provide an improved east/west highway system through the study area. The primary purpose of this project is to provide adequate access to an area designated for planned growth by Baltimore County and to relieve existing congestion problems along major routes in the area. The project is compatible with existing and planned development.

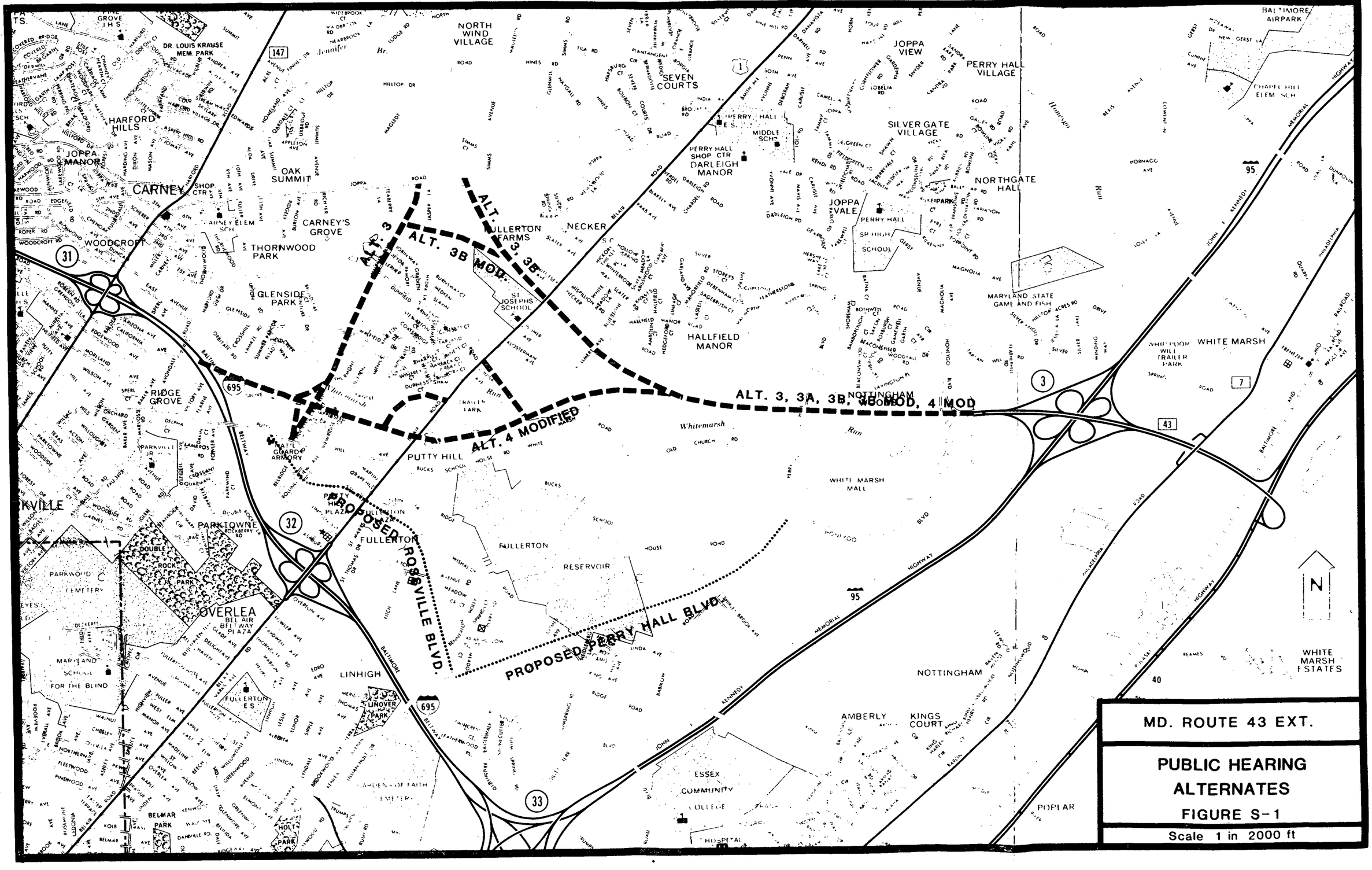
4. Alternates Considered

The State Highway Administration has considered numerous preliminary alignments for the extension of Maryland Route 43 and several options for improving U.S. Route 1. Eight Maryland Route 43 build alternates, with an additional option for seven of these alternates, and two build options for U.S. Route 1 improvements were developed for presentation at the Public Alternates Meeting held November 10, 1983.

The following five build alternates for the extension of Maryland Route 43 and two build alternates for improving U.S. Route 1 were studied in detail and presented at a Combined Location/Design Public Hearing on May 24, 1984. Alternate 4 Modified was selected as the alternate for Maryland Route 43. An alternate will be selected for improving U.S. Route 1 during the design phases. (Figure S-1)

Maryland Route 43 Alternates

Alternate 3 - This alternate consisted of the extension of Maryland Route 43 to an intersection with proposed Walther Boulevard west of U.S. Route 1 and the construction of Walther Boulevard from Joppa Road to a partial interchange with I-695 between Putty Hill Avenue and Avondale Road. At-grade intersections would be provided at Honeygo Boulevard and U.S. Route 1 and connecting roadways would be constructed between Joppa Road and Walther Boulevard and Rossville Boulevard and Walther Boulevard. Maryland Route 43, east of U.S. Route 1, would be a six lane curbed, divided highway.



MD. ROUTE 43 EXT.

PUBLIC HEARING ALTERNATES

FIGURE S-1

Scale 1 in 2000 ft

West of U.S. Route 1, Maryland Route 43 would transition to a four lane curbed, divided highway between U.S. Route 1 and Walther Bouelvard.

Alternate 3A - This alternate proposed the extension of Maryland Route 43 to U.S. Route 1, with no new roadways west of U.S. Route 1. This alternate is the same as Alternate 3, east of U.S. Route 1.

Alternate 3B - This alternate is identical to Alternate 3 east of U.S. Route 1. West of U.S. Route 1, this alignment curved to the north and terminated as an at-grade intersection with Joppa Road, west of Simms Avenue.

Alternate 3B Modified - This alternate is identical to Alternate 3, 3A, and 3B east of U.S. Route 1. West of U.S. Route 1, Alternate 3B Modified proposed an at-grade intersection just west of Belmont Park with the proposed Walther Boulevard. Walther Boulevard would be constructed from existing Walther Boulevard at the southern boundary of Belmont Park to Joppa Road as a four lane, divided roadway with a 16-foot raised median.

Alternate 4 Modified (Selected Alternate)

The Maryland State Highway Administration, has selected Alternate 4 Modified. This alternate would provide a six lane curbed, divided highway with a 30-foot median between existing Maryland Route 43, at Honeygo Boulevard, and U.S. Route 1 and would transition to a four lane divided highway with a 30-foot median west of U.S. Route 1 to a partial

connection with I-695 between Avondale Road and Putty Hill Avenue. This alignment runs south of the other Maryland Route 43 alignments and passes beneath U.S. Route 1 between the Ridge Lumber Company and the Sunrise Trailer Park. Two ramps would be constructed to provide access between U.S. Route 1 and Maryland Route 43. (See Figure II-3 thru II-5)

U.S. Route 1 Improvements

Two proposed U.S. Route 1 build alternates were presented at the Combined Location/Design Public Hearing to upgrade U.S. Route 1 to either a six lane divided highway with auxiliary turn lanes at major intersections, or a seven lane highway with a continuous center left turn lane.

The Maryland State Highway Administration will select an alternate for upgrading U.S. Route 1 from I-695 to Silver Spring Lane during design. This alternate would provide either a six or seven lane typical section within a 110 feet maximum right-of-way. Auxiliary turn lanes will be provided at major intersections.

Additional information on all of these alternates can be found in Section II. B.

5. Areas of Controversy

The Northeast Coordinating Council represents several community groups in the study area. The Council is in favor of Maryland Route 43, Alternate 3B and is opposed to a connection with I-695 based on the perceived traffic impacts associated with I-695 traffic travelling through the communities.

6. Other Federal/State Actions Required

Construction of this project would require review and

approval for the following permits:

U.S. Army Corps of Engineers -- Section 404 Permit

Maryland Department of Natural Resources -- Approved Sediment Control Plan

Maryland Department of Natural Resources -- Approved Stormwater Management Plan

Maryland Department of Natural Resources -- Waterway Construction Permit

Maryland Department of Health and Mental Hygiene -- Water Quality Certificate

7. Summary of Environmental Impacts

Summary Table S-1 compares the significant impacts associated with the alternates considered.

SUMMARY OF IMPACTS

	No-Build	Maryland Route 43 Extended Alternates					U.S. Route 1 Improvements
	Alternate	3	3A	3B	3B Mod.	4 Mod.*	Worst Case Conditions
SOCIO-ECONOMIC IMPACTS							
Residential Displacements	0	2	2	3	2	2	20
Business Displacments	0	1	0	0	0	1	7
Access to Community Facilities	deteriorating	improved	improved	improved	improved	improved	improved
Parkland Affected - Acres	0	8.5	0	0	4.5	0	0
Historic Sites Affected	0	1	1	1	1	0	0
Archeological Sites Affected	0	0	0	0	0	0	0
NATURAL ENVIRONMENT IMPACTS							
Prime Farmland Soils - Acres	0	0	0	0	0	0	0
Active Agricultural Land - Acres	0	0	0	0	0	2.5	0
Stream Realignment - Linear Feet	0	1380	0	1200	1200	1600	0
New Stream Crossings	0	5	3	4	4	5	0

TABLE S-1

	No-Build	Maryland Route 43 Extended Alternates					U.S. Route 1 Improvements
	Alternate	3	3A	3B	3B Mod.	4 Mod.*	Worst Case Conditions
NATURAL ENVIRONMENT IMPACTS (cont'd.)							
Wetlands - Acres	0	0	0	0	0	0	0
Floodplain - Acres	0	3.3	0.5	0.5	0.5	7.3	0.5
Woodland - Acres	0	73.2	42	48.3	51.4	79.7	0
Old Field - Acres	0	25	15.3	24.2	24.4	19.9	0
Threatened or Endangered Species	0	0	0	0	0	0	0
Air Quality Impacts+	0	0	0	0	0	0	0
Noise Level Impacts++	0	0	1	0	0	1	1
COSTS							
Right of Way**		4,950	3,012	3,686	3,863	6,301	5,364
Relocation**		73	31	63	47	126	335
(1) Construction**		21,204	11,055	12,772	13,671	31,492	8,010
TOTAL**		26,227	14,098	16,521	17,581	37,919	13,709

*Selected Alternate
**Cost in Thousands (Updated Cost Estimate)
+Sites Exceeding S/NAAQS
++NSA's Exceeding Federal Noise Abatement Criteria
(1) Includes $3,230,000 for additional construction at I-695, i.e., four thru lanes and retaining walls.

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I
PURPOSE AND NEED

I. PURPOSE AND NEED

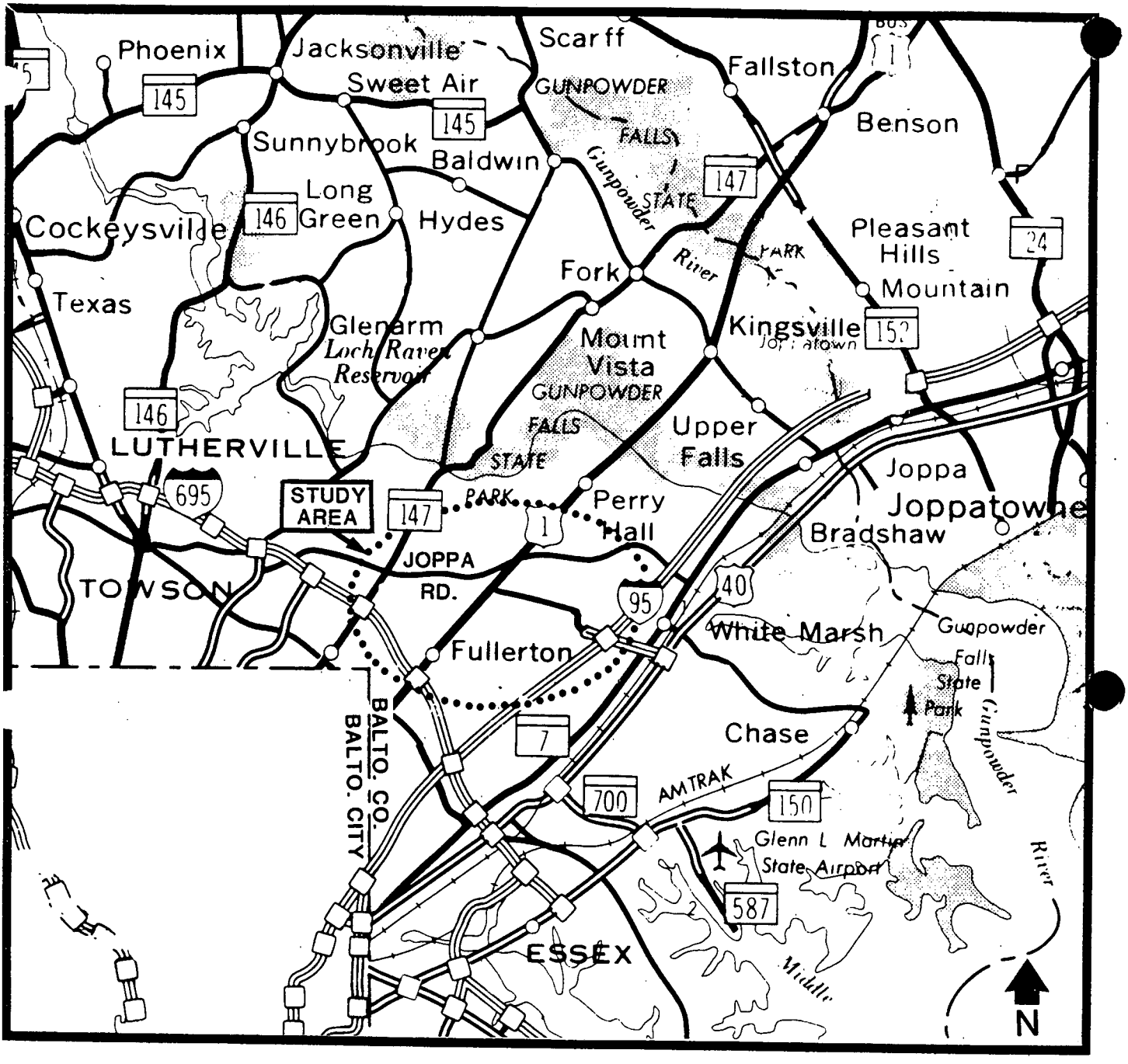
A. Project Location and Description

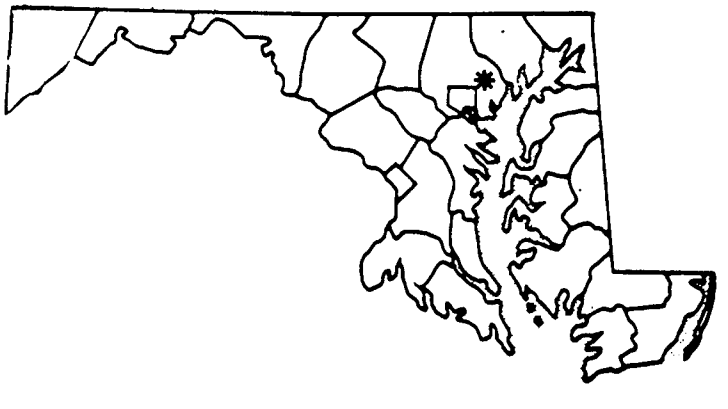
The Maryland Route 43 study area is located in the northeast section of Baltimore County, northeast of Baltimore's City limits (See Figure I-1). It is bounded by Avondale Road to the west, Interstate Route 95 to the east, Interstate Route 695 (Baltimore Beltway) to the south, and Joppa Road to the north (See Figure I-2).

B. Need for the Project

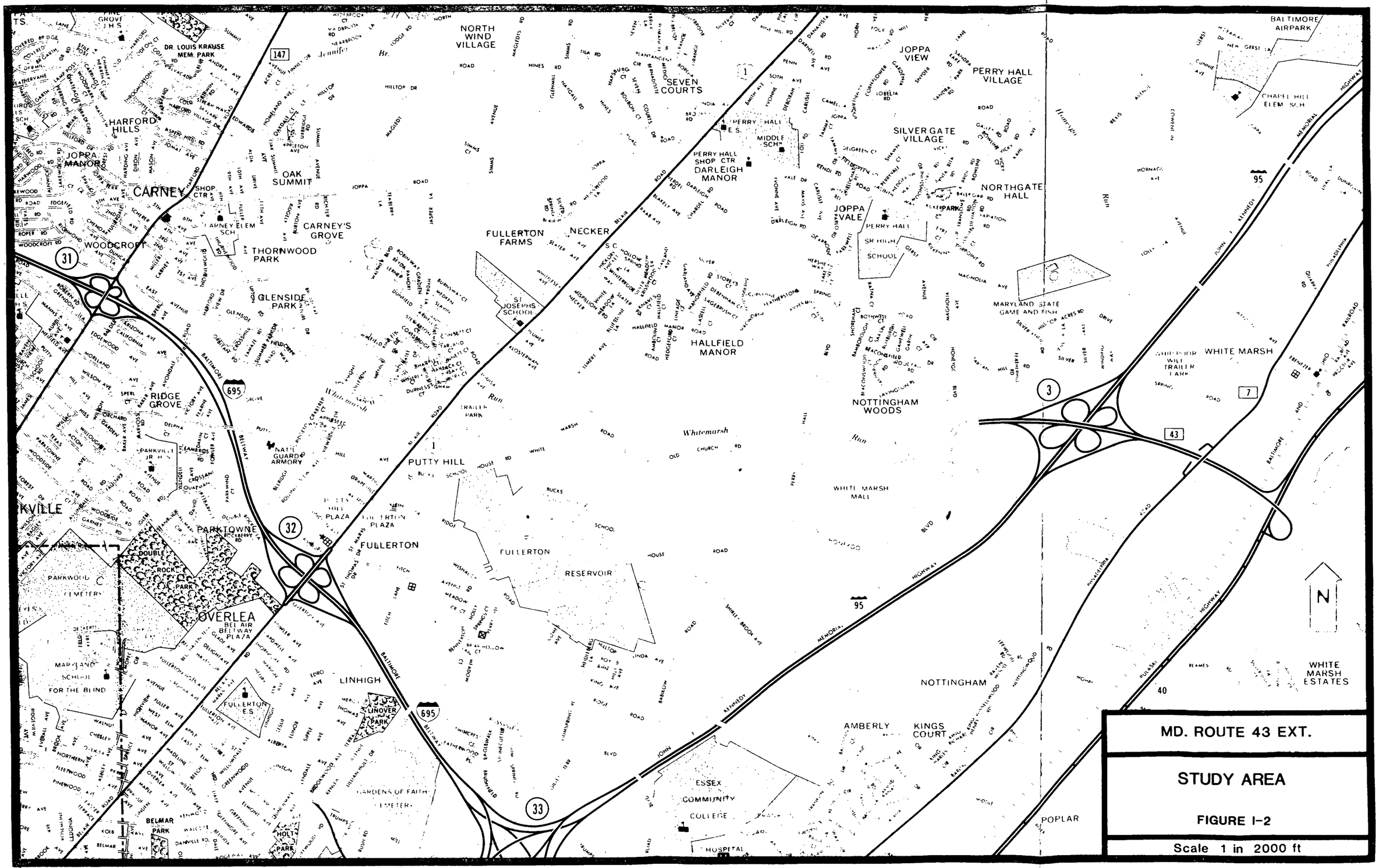
1. Regional Growth and Development

Since 1974, the Perry Hall/White Marsh area, designated in 1976 by Baltimore County as a major growth area in Baltimore County, has been experiencing extensive residential, commercial, and light industrial development. Those areas currently experiencing the largest growth are Carney, White Marsh, Perry Hall, and Fullerton/Rossville as shown in Figures I-1 and I-2. Baltimore County Office of Planning and Zoning projections indicate that the White Marsh/Perry Hall area will experience an increase in population from 23,000 in 1980 to 46,000 in the year 1995, an increase of 100%. Transportation is an important element in the development plan for Baltimore County and in particular for this study area. Zoning, utilities, water, and most of the sewerage are available to accommodate this intense development. The proposed action addresses a significant portion of the transportation need in the study area.





MD. RTE. 43/U.S. RTE. 1	
PROJECT LOCATION	
NOT TO SCALE	FIGURE 1-1



MD. ROUTE 43 EXT.

STUDY AREA

FIGURE I-2

Scale 1 in 2000 ft

2. Traffic and Operating Conditions

a. Existing Facilities (Figure I-2)

The study area is serviced by two (2) Interstate facilities. Interstate Route 95 provides major north/south movements while Interstate Route 695 (Baltimore Beltway) provides major east/west movements. U.S. Route 1 (Belair Road) is the main north/south radial facility in the study area leading into Baltimore City and Harford County. Harford Road (Maryland Route 147) and Avondale Road serve local north/south traffic in the vicinity. The east/west traffic movements through the study area are primarily provided by Putty Hill Avenue/Ridge Road, Joppa Road and Silver Spring Road. Silver Spring Road is the only direct access from U.S. Route 1 to White Marsh. Interstate Routes 695 and 95 provide the only direct east/west movement from White Marsh Town Center to Harford Road. This results in a large amount of local traffic using the Interstate which is intended for through, long distance travel.

The transportation needs within the study area are twofold. First, U.S. Route 1, one of the major radial routes in Baltimore County, suffers from the problem of high traffic volumes compounded by the large mix of local and through traffic, strip commercial development, and side-road problems created by numerous driveways. Also, essential to the planned development areas west, east and north of U.S. Route 1, is the timely provision of major new highway facilities designed to provide a substantial increase in system capacity and levels of service. This project is intended to increase the traffic capacity of U.S. Route 1 and provide an improved east/west

highway system by extending existing Maryland Route 43.

b. Operating Conditions

Roads in the vicinity of the study area are already congested, particularly during peak hours. Current level of service information is in Section III. B. The projected traffic volumes used in this analysis reflect recent zoning changes aimed at reducing the development density by approximately 40% in the Whitemarsh area. U.S. Route 1 currently carries traffic volumes ranging from 38,400 vehicles per day near Silver Spring Road (at the northern end of the study area) to 43,500 vehicles per day near Fitch Avenue (at the southern end of the study area). Travelers along this route experience considerable congestion and delay, especially at the intersections with Putty Hill Avenue and Silver Spring Road. Traffic projections indicate that the intersections of Putty Hill Avenue and U.S. Route 1, Silver Spring Road and U.S. Route 1, and Honeygo Boulevard and existing Maryland Route 43 will reach capacity by the design year 2010 due to the high density development planned by Baltimore County in this area.

Traffic volumes on the east/west roads will increase substantially (e.g. from the present 14,000 vehicles per day on Silver Spring Road east of U.S. Route 1 to 40,000 vehicles per day in the year 2010) if Maryland Route 43 is not extended.

Traffic operating conditions at the intersection of U.S. Route 1 and Silver Spring Road are near capacity now with unstable flow and occasional intolerable delays. In 2010, traffic operations would continue to deteriorate under No-Build conditions with higher volumes causing forced flow and operational breakdowns.

Traffic volumes on U.S. Route 1 north of the Beltway will reach 66,000 vehicles per day if Maryland Route 43

is not extended west of U.S. Route 1 to an interchange with the Beltway and 51,000 vehicles per day if Maryland Route 43 is extended to the Beltway. With this volume of traffic utilizing U.S. Route 1 to access I-695, a connection with I-695 would serve these traffic needs as well as improve operating conditions along U.S. Route 1 north of I-695. Traffic operations at the intersections of U.S. Route 1 and Fitch Avenue and U.S. Route 1 and Putty Hill Avenue are currently at capacity with forced flow and operational breakdowns. A Maryland Route 43 extension to the Beltway would improve these conditions to tolerable delays with some unstable flow at the intersection of U.S. Route 1 and Fitch Avenue and improved to a stable flow with restricted speeds at the U.S. Route 1 and Putty Hill intersection.

The project termini, from existing Maryland Route 43 at White Marsh to U.S. Route 1, a point west of U.S. Route 1 or a conection with I-695, have been selected based on traffic need and what would best serve the study area.

Baltimore County plans to construct several new roads in the area to address local circulation problems. As a result of the population increases discussed in Section I.B.1, even if the County's new roads are constructed, travelers will experience extreme congestion and delay along U.S. Route 1 between I-695 and Silver Spring Road, if improvements to U.S. Route 1 are not made.

C. Planning Background

The concept of an east/west freeway between Eastern Avenue and a proposed northern extension of Perring Freeway has been considered for many years. A short section (1.9 miles) of

Maryland Route 43 was constructed during the early 1960's from U.S. Route 40 to Honeygo Boulevard, with an interchange at I-95. It was built concurrently with I-95. Detailed studies began on the western extension of Maryland Route 43 to proposed Perring Freeway during the early 1970's. In July, 1975, continuing controversy about the proposed extension of Perring Freeway resulted in the Baltimore County Officials requesting its deletion from all state planning documents. As a result, the western terminus for Maryland Route 43 remained uncertain.

The Northeast Sector Transportation Study, a cooperative effort of the Maryland Department of Transportation, Baltimore County and the Regional Planning Council, was initiated in 1979 to recommend a highway system for the study area. In May, 1982, the final report was published. It identified a need to increase north/south and east/west capacity based on traffic forecasts for growth areas adjacent to U.S. Route 1 and recommended a system of improvements. The study specifically suggests a westerly extension of Maryland Route 43 to a connection with I-695 and addresses the need to alleviate congestion along U.S. Route 1.

This project is consistent with State, Regional, and County plans. The Maryland Department of Transportation's Highway Needs Inventory (Revised 1982), identifies U.S. Route 1 as needing safety and service improvements in the study area and acknowledges the need to improve service by extending Maryland Route 43 to the west of U.S. Route 1. The project is in agreement with the General Development Plan, Baltimore Region (1982) and the 1984-1986 Transportation Improvement Program, approved by

the Regional Planning Council (June, 1981).

The Baltimore County Master Plan, 1979-1990 (1979) specifically recognizes the current congestion problems along U.S. Route 1 in the Fullerton/Perry Hall area. It also acknowledges a need for increased system capacity and service as essential to future development in the White Marsh/Perry Hall Area.

The Maryland Department of Transportation Consolidated Transportation Plan (CTP) for fiscal year 1984-1989 includes the Maryland Route 43 extended project. Construction is tentatively scheduled for fiscal year 1989. Right of way acquisition is anticipated to begin in fiscal year 1987.

Coordination of this project with Baltimore County Officials, Elected Officials and the public has been ongoing throughout the project planning phase.

An Initial Public Meeting was held in March, 1982 to explain the nature and scope of the proposed westerly extension of Maryland Route 43. The Systems Planning Report, which summarized this information, was distributed to the Baltimore County Council and the Maryland General Assembly in March, 1982. Following a 90-day review period, almost all of the Baltimore County Council and the Maryland General Assembly members expressed support for the project. In May, 1982, after reviewing the Northeast Sector Transportation Study - Final Report, the Baltimore County Council expressed support for this project and gave the White Marsh area the highest priority for highway development. The State Highway Administration proceeded with final project planning in July, 1982.

Between November, 1982 and October, 1983, several meetings were held individually with Elected Officials, the Baltimore County Council, Baltimore County staff (Department of Planning and Zoning, Department of Traffic Engineering, Department of Public Works) and neighborhood organizations to update them on the studies performed to date, obtain their input regarding the preliminary alternates and to address their concerns. Comments from these meetings have been considered and incorporated into the development of the preliminary alternates.

On November 10, 1983, the Public Alternates Meeting was held to present the preliminary alternates developed as a result of the preliminary studies, environmental assessments, and coordination to date and to encourage public discussion of these alternates. A meeting in December, 1983 was held to review the comments received from the Alternates Public Meetings and to select those alternates which were retained for further study.

The alternates retained for further study and associated impacts were discussed in the Draft Environmental Statement/4(f) which was approved for distribution April 19, 1984.

Subsequent to the distribution of the Draft Environmental Impact Statement, a Location/Design Public Hearing for Maryland Route 43 was held on May 24, 1984 at Perry Hall Senior High School. All comments received on the Draft Environmental Impact Statement plus oral and written statements received at the Hearing were considered prior to the selection of Alternate 4(f) Modified for Maryland Route 43. An alternate for improvements to U.S. Route 1 will be selected by the Maryland

State Highway Administration during the design phases.

After location and design approvals are granted for Maryland Route 43 and location approval is granted for U.S. Route 1, the project will proceed to detailed design.

II
ALTERNATES

II. ALTERNATES INCLUDING THE SELECTED ACTION

A. Preliminary Alternates

1. General

Maryland Route 43 Extended is intended to provide increased roadway capacity and an improved east-west highway system in the study area. The selected action will improve present conditions and adequately accommodate the concentrated development planned for this area.

As the result of numerous reviews of the preliminary and detailed alternates, the identification of engineering and environmental concerns and coordination with county and elected officials, alternate 4 Modified was chosen as the selected alternate for Maryland Route 43. An alternate for improving U.S. Route 1 will be selected during the design phases.

2. Alternates Presented at the Alternates Public Meeting - November 10, 1983

a. MARYLAND ROUTE 43 EXTENDED ALTERNATES

Alternate 1 - No-Build - This alternate is discussed in Section II. B.

Alternate 2 - This alternate proposed the extension of the county planned Rossville Boulevard from its proposed terminus at Putty Hill Avenue to a partial interchange with I-695 between Putty Hill Avenue and Avondale Road. Alternate 2 also provided a connection to Walther Boulevard.

Alternate 2 was not selected for further study because rather than distributing traffic throughout the study area, it directed traffic either along Rossville and Perry Hall

Boulevards (planned for circulation of local traffic) or along the already congested Silver Spring and Joppa Roads, resulting in excessive congestion. There would be no significant improvement in access to residential and commercial developments, and it would not directly serve the needs of future concentrated development areas.

Alternates 3, 3A, 3B - These alternates are described in Section II. B.

Alternate 4 - This alternate involved the westerly extension of existing Maryland Route 43 with at-grade intersections at Honeygo and Perry Hall Boulevards. The alignment passed under U.S. Route 1 with diamond interchange ramps providing access to and from U.S. Route 1 and would provide a connecting roadway to Walther Boulevard.

Alternate 4 terminated in a partial interchange with I-695 between Putty Hill Avenue and Avondale Road. Only westbound to westbound and eastbound to eastbound movements, as described in Alternate 2 would be provided.

Under this alternate, the Stillmeadow Road connection to U.S. Route 1 would be closed and access was provided via Walther Boulevard.

Alternate 4 was dropped from further study primarily due to floodplain encroachment along Whitemarsh Run. In addition, the U.S. Route 1 interchange was determined to provide a poor level of service and therefore would not be cost effective.

Alternate 4 Modified (Selected Alternate) - This alternate is a variation of Alternate 4. A detailed description

is given in Section II. B-1.

Alternate 4A - This alternate extended westerly from existing Maryland Route 43 and terminated as an at-grade intersection at U.S. Route 1, opposite Dunfield Road. Traffic would utilize U.S. Route 1 to connect with I-695.

Alternate 4A was primarily not selected for further study because it is not compatible with County plans to extend Dunfield Road to the Perry Hall/Honeygo Boulevard intersection. In addition, no improved access west of U.S. Route 1 would be provided. Traffic volumes along U.S. Route 1 were projected to increase with this alternate resulting in a significant decrease in level of service on U.S. Route 1.

Alternate 4B - This alternate is the same as Alternate 4A between existing Maryland Route 43 and U.S. Route 1 to the west. Alternate 4B provided for an at-grade intersection at U.S. Route 1 and the upgrading of Dunfield Road between U.S. Route 1 and Walther Boulevard. It terminated in a partial interchange with I-695 as described in Alternate 2. Also, a connecting road was be provided between Walther and Rossville Boulevards.

Alternate 4B was dropped from further study primarily due to its impact on the residential area of Belmont, and because traffic volumes would increase along U.S. Route 1 north of Dunfield Road.

Honeygo Boulevard Options - With the exception of Alternate 2, this option was developed for all of the Maryland Route 43 Build Alternates to extend existing Honeygo Boulevard

west of Perry Hall Boulevard to intersect with U.S. Route 1 along approximately the same alignment previously described for each alternate.

The existing Maryland Route 43, Honeygo Boulevard partial interchange would require only minor modifications. Honeygo Boulevard would be upgraded to a 6-lane curbed highway by adding two lanes in the median and providing a raised, 30 foot median.

The Honeygo Boulevard Option was not considered for further study due to the numerous existing and proposed intersections and entrances involved. Also, longer travel time would be required for through trips because of numerous proposed signalized intersections and longer travel distance. The accident potential would be higher because of the numerous existing intersections and future entrances planned by Baltimore County.

b. U.S. ROUTE 1 ALTERNATES

No-Build Alternate - This alternate is discussed in Section II. B.

Six and Seven lane Build Alternates - These alternates are described in Section II. B 2.

B. Alternates Presented at the combined Location/Design Public Hearing on May 24, 1984.

1. Maryland Route 43 Alternates (See Figure S-1)

The following alternates were selected for detailed study and are presented in the Draft Environmental

Impact Statement/4(f).

- No-Build
- Alternate 3
- Alternate 3A
- Alternate 3B
- Alternate 3B Modified (developed after the Alternates Public Meeting)
- Alternate 4 Modified (Selected Alternate)

a. NO-BUILD ALTERNATE (Figure II-1)

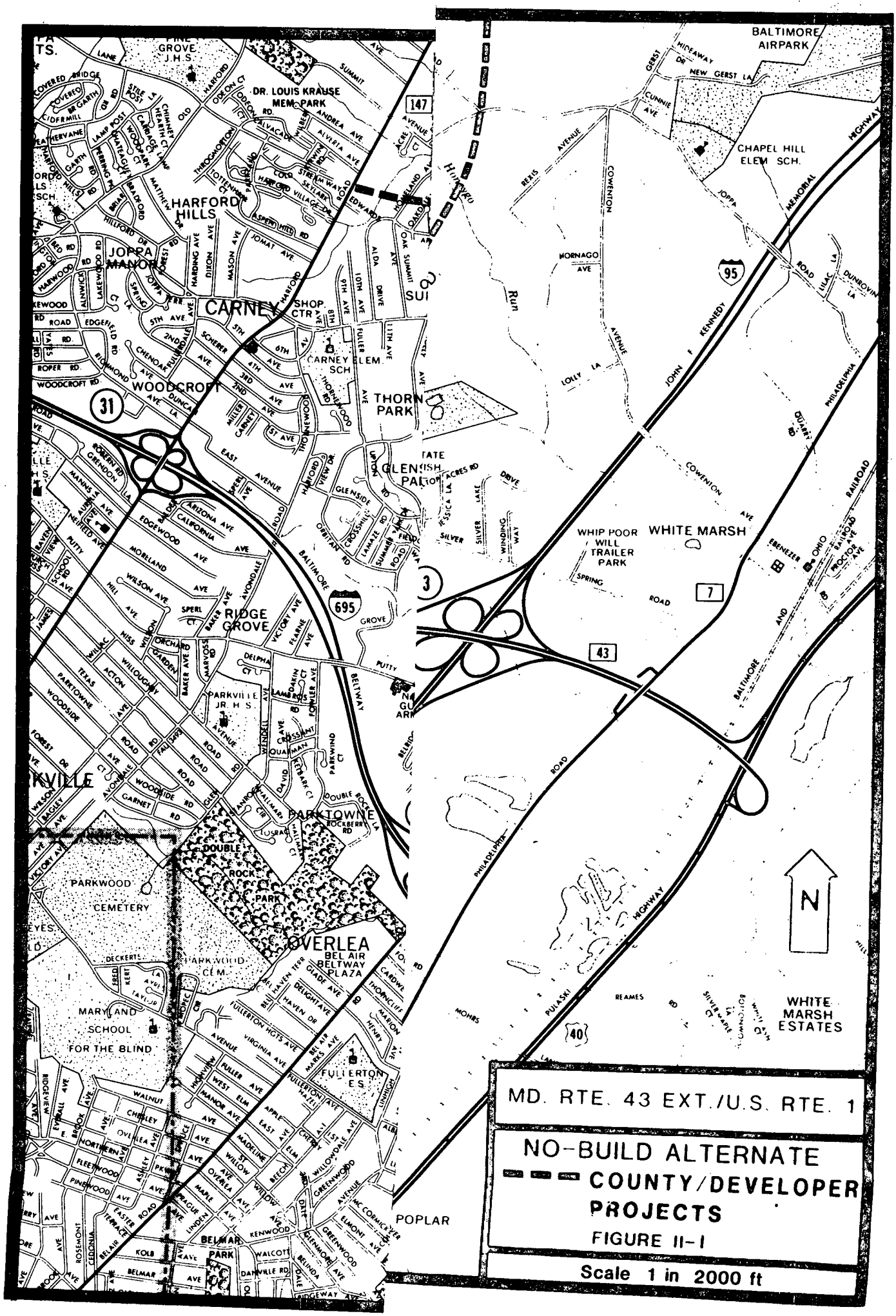
The No-Build alternate would provide no extension of Maryland Route 43 from its present terminus at Honeygo Boulevard and instead would utilize the existing roads along the presently planned County roads to provide east-west traffic movement. Minor improvements to these roads would occur over a period of time as part of normal highway maintenance and safety operations.

The No-Build alternate was not selected because it would provide no improvements in traffic safety, access or capacity. This would confine increasing traffic volumes to existing roadways of inadequate capacity many of which are residential in nature with numerous access points.

This alternate was retained for further study as a basis for comparison with the Selected Alternate.

b. ALTERNATE 3

Alternate 3 consists of the extension of Maryland Route 43 to an intersection with proposed Walther Boulevard west of U.S. Route 1 and the construction of Walther



MD. RTE. 43 EXT./U.S. RTE. 1

NO-BUILD ALTERNATE

--- COUNTY/DEVELOPER PROJECTS

FIGURE II-1

Scale 1 in 2000 ft

Boulevard from Joppa Road to a partial interchange with I-695 (Baltimore Beltway) between Putty Hill Avenue and Avondale Road. Only the westbound movement from Maryland Route 43 to I-695 toward Towson and eastbound movement from I-695 to Maryland Route 43 toward White Marsh would be provided at this interchange. The Beltway was constructed with separate roadways in this area to permit the construction of this interchange. The existing Maryland Route 43-Honeygo Boulevard interchange would be reconstructed as an at-grade intersection. This alternate crosses Perry Hall Boulevard with an at-grade intersection and proceeds west to an at-grade intersection with U.S. Route 1, 600 feet south of Necker Avenue. The alternate continues west of U.S. Route 1 to tie into Walther Boulevard in Belmont Park. It then turns south, utilizing the portions of Walther Boulevard that are already constructed and terminates in the above-described partial interchange with I-695. Connecting roadways would be provided between Joppa Road and Walther Boulevard and between proposed Rossville Boulevard and Walther Boulevard.

Maryland Route 43 east of U.S. Route 1 would be a six-lane, curbed, divided highway with a 30-foot raised median. Double left-turn lanes and auxiliary right-turn lanes would be provided at major intersections. West of U.S. Route 1, Maryland Route 43 would transition to a four-lane curbed, divided highway with a 20-foot raised median.

This alternate was dropped from consideration for the following reasons:

- It would impact residentially developed areas and

substantial right-of-way and construction costs would be incurred.

- It would create a new signalized, at grade intersection with U.S. Route 1 which would generate an undesirable level of service.

- It would substantially increase traffic volumes on Walther Boulevard.

- It proposes a more circuitous route with a substandard typical section in the vicinity of the Belmont community.

- This alternate would impact Belmont Park.

c. ALTERNATE 3A

Under this alternate, Maryland Route 43 would terminate at U.S. Route 1. No new roadways, other than those currently proposed by Baltimore County would be constructed west of U.S. Route 1. East of U.S. Route 1, the alignment and roadway section would be the same as Alternate 3.

Traffic travelling west on Maryland Route 43 desiring to continue west would utilize U.S. Route 1 to I-695.

This alternate was dropped from consideration for the following reasons:

- No improved access west of U.S. Route 1 would be provided.

- Traffic volumes along U.S. Route 1 would increase.

- Another signalized intersection along U.S. Route 1 would be created.

- It would provide no new traffic access between the White Marsh growth area and development areas west, via I-695.

d. ALTERNATE 3B

Alternate 3 B is identical to Alternate 3

east of U.S. Route 1. West of U.S. Route 1, it would curve to the north to its terminus as an at-grade intersection with Joppa Road 500 feet west of Simms Avenue. A right turn deceleration lane would be provided on westbound Joppa Road.

This alternate was dropped from consideration for the following reasons:

- Another signalized intersection along U.S. Route 1 would be created.

- No new access would be provided between the White Marsh Growth Area and the region west via I-695.

- Another signalized intersection would be created along Joppa Road.

- Traffic congestion on Joppa Road would be significantly increased.

- Undesirable levels of service would be created at intersections with Joppa Road, U.S. Route 1 and Perry Hall Boulevard.

e. ALTERNATE 3B MODIFIED

Alternate 3B Modified has been developed since the Alternates Meeting and is the same as Alternate 3B except that it terminates as an at-grade intersection with Walther Boulevard approximately 900 feet south of Joppa Road. Walther Boulevard would be constructed from existing Walther Boulevard at the southern boundary of Belmont Park to Joppa Road.

The reasons Alternate 3B Modified was dropped from consideration are the same as those given for Alternate 3B, with one addition.

- The aquisition of land from Belmont Park is required to make

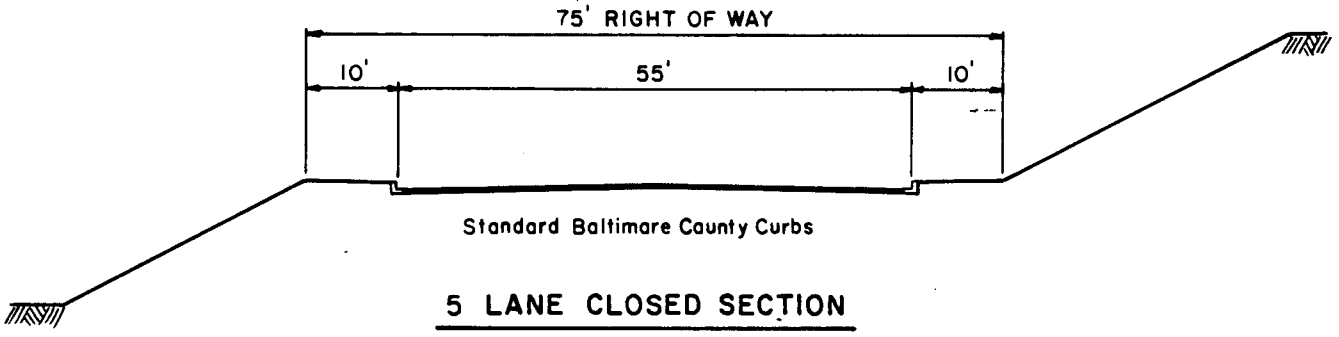
the connection to Walther Boulevard.

f. ALTERNATE 4 MODIFIED - Selected Alternate

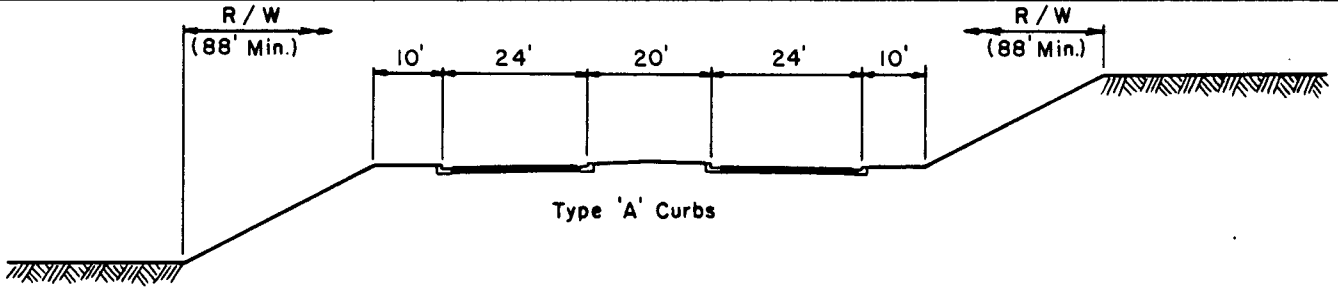
Alternate 4 Modified begins as a partial interchange with I-695 between Maryland Route 147 (Harford Road) and U.S. Route 1 (Belair Road). I-695 was originally designated and constructed with bifurcated roadways in this area to facilitate construction of this planned interchange. The proposed interchange will only accommodate the eastbound movement from I-695 to Maryland Route 43 toward White Marsh and the westbound movement from Maryland Route 43 to I-695 toward Towson. Concurrent with the construction of the partial Maryland Route 43 interchange, I-695 would be widened to four (4) thru lanes in each direction between this proposed connection and Maryland Route 147.

The interchange improvements on the eastbound roadway would consist of a deceleration lane in the Beltway median and a single-lane ramp crossing over the westbound I-695 roadway. The ramps would then widen to a two-lane roadway and converge with the westbound Maryland Route 43 roadway west of the proposed intersection with Walther Boulevard. The ramp and acceleration lane from northbound Harford Road to eastbound I-695 would be separated from the mainline Beltway by a barrier from the existing ramp gore to the proposed gore of the eastbound Maryland Route 43 ramp in order to prevent weaving between the ramps. The grade on Avondale Road on the south side of the I-695 bridge would have to be lowered slightly to provide adequate vertical clearance for the ramp from northbound Harford Road.

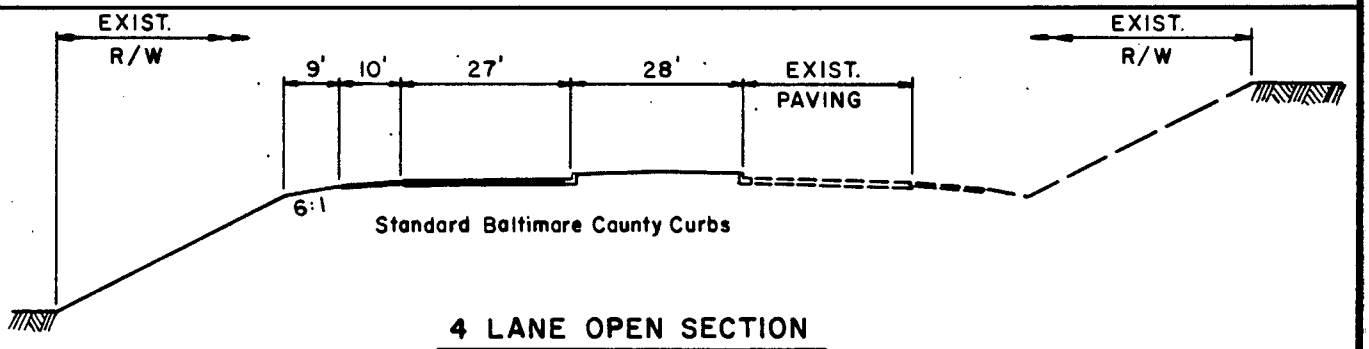
The interchange improvements on the westbound



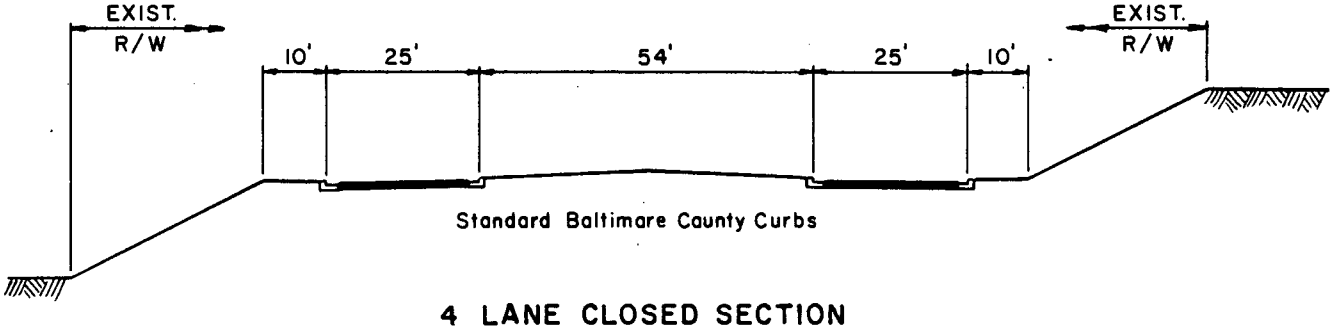
5 LANE CLOSED SECTION
WALTHER BLVD.



4 LANE CLOSED SECTION
RAMP A & RAMP B



4 LANE OPEN SECTION
PERRY HALL BLVD.



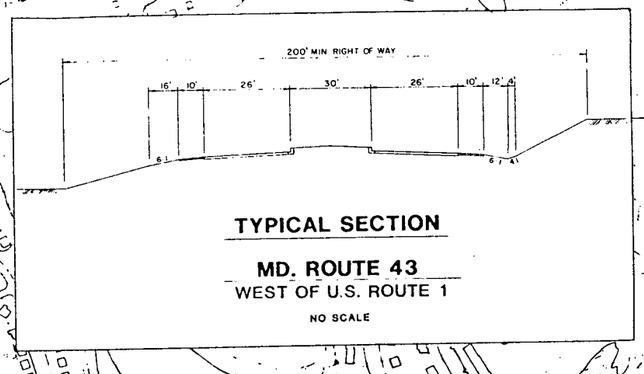
4 LANE CLOSED SECTION
HONEYGO BLVD.

THE DIMENSIONS SHOWN ARE FOR THE PURPOSE OF DETERMINING COST ESTIMATES AND ENVIRONMENTAL IMPACTS, AND ARE SUBJECT TO CHANGE DURING THE FINAL DESIGN PHASE.

TYPICAL SECTIONS
MD. ROUTE 43

ALTERNATE 4 MODIFIED

NO SCALE FIGURE **II-2**



TYPICAL SECTION

MD. ROUTE 43
WEST OF U.S. ROUTE 1

NO SCALE

HARFORD ROAD

AVENUE

4 TH THROUGH LANES

RETAINING WALL & BARRIER

RETAINING WALL & BARRIER

EXISTING RIGHT OF WAY

GRADING LIMITS

PROPOSED RIGHT OF WAY

STREAM RELOCATION

100 YEAR FLOODPLAIN

BEVONDALE

695

RETAINING WALL & BARRIER

PUTTY HILL

WALTHER BLVD

MATCH TO FIGURE II-4

PROPOSED WALTHER BOULEVARD

BELMONT PARK

DUNFIELD

KINLORE DRIVE

RAMP A

NOTE: Stillmeac
closed under th

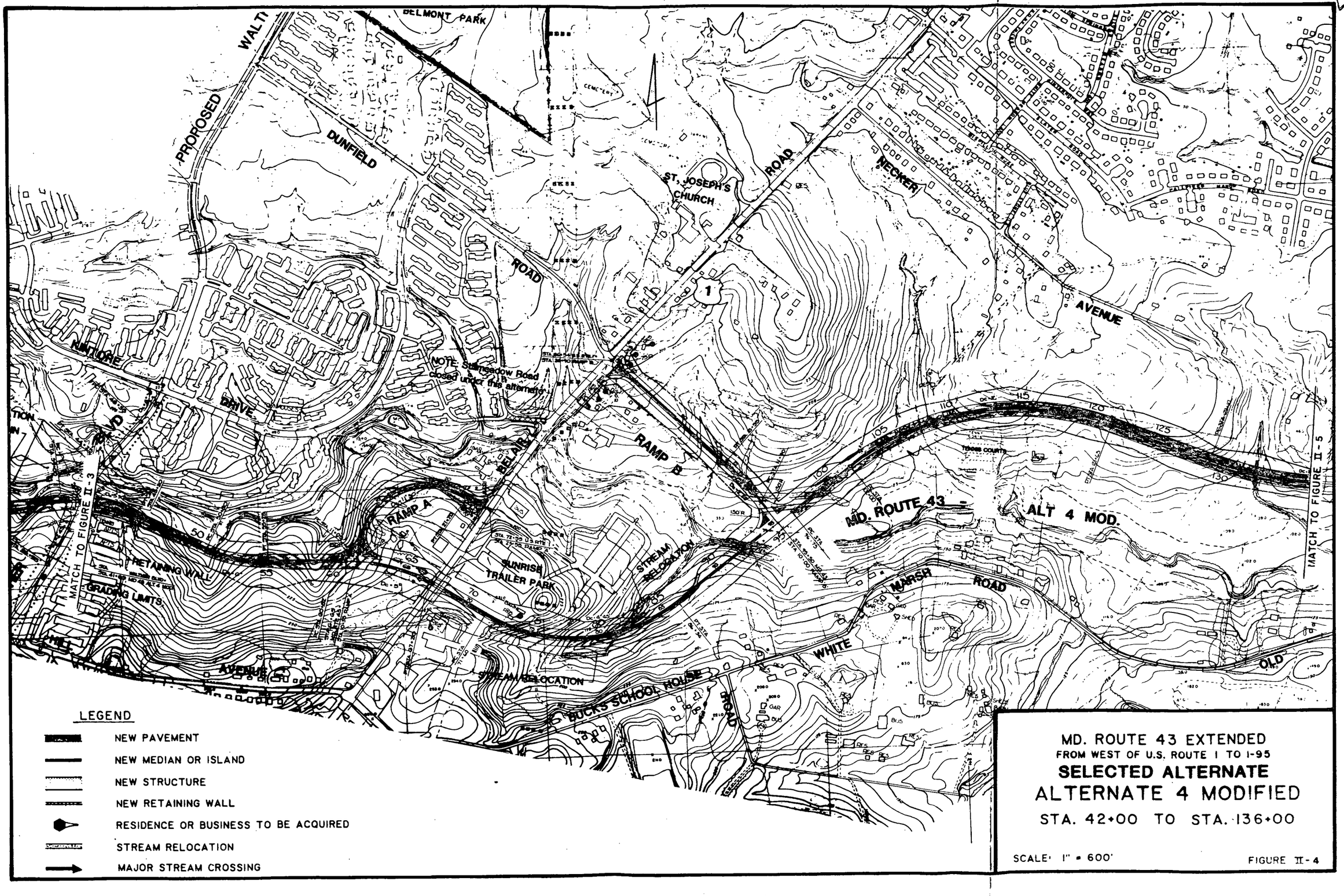
LEGEND

- NEW PAVEMENT
- NEW MEDIAN OR ISLAND
- NEW STRUCTURE
- RESIDENCE OR BUSINESS TO BE ACQUIRED
- STREAM RELOCATION
- MAJOR STREAM CROSSING

MD. ROUTE 43 EXTENDED
FROM WEST OF U.S. ROUTE 1 TO I-95
SELECTED ALTERNATE
ALTERNATE 4 MODIFIED
STA. 10+00 TO STA. 42+00

SCALE: 1" = 600'

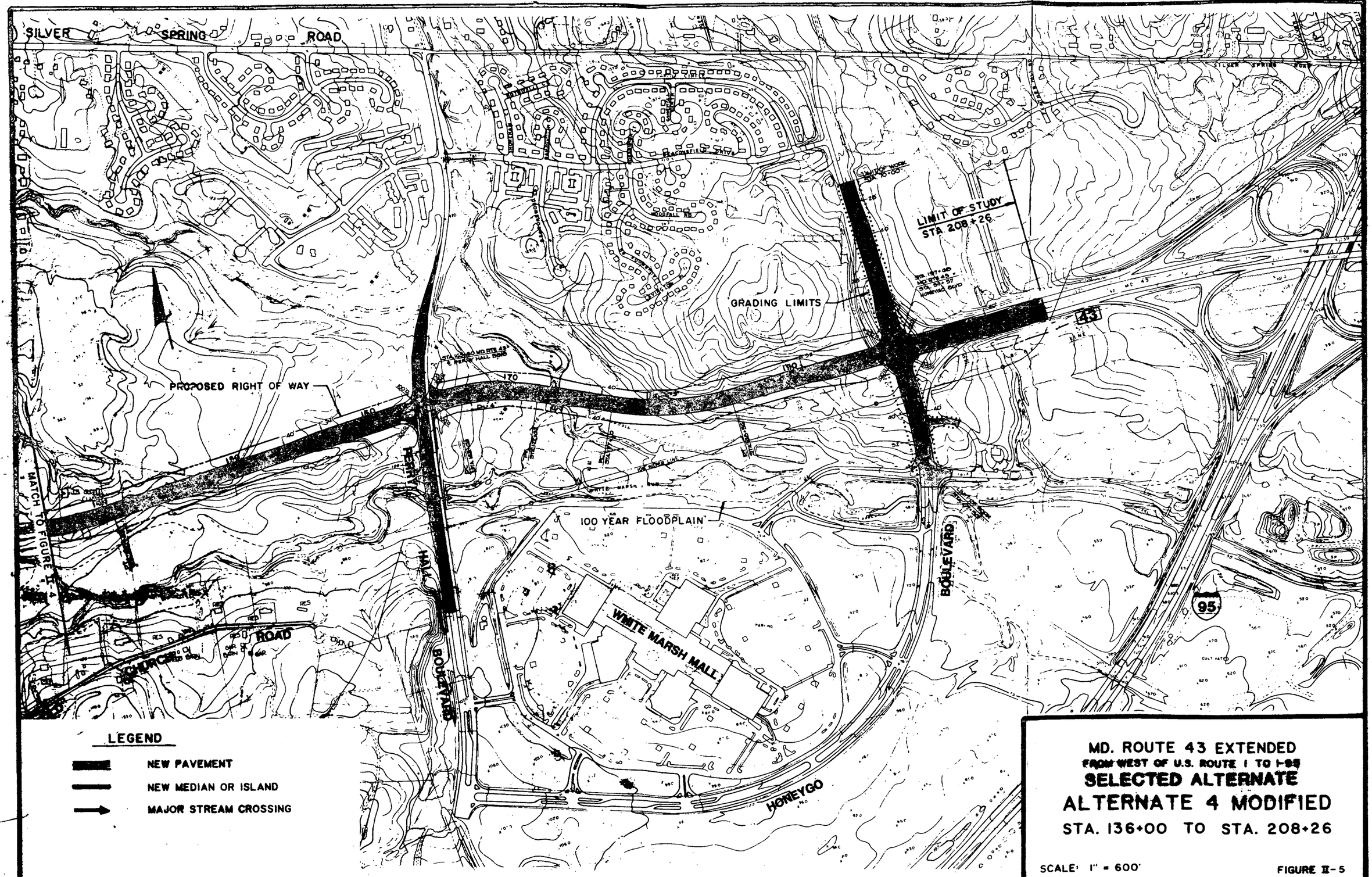
FIGURE II-3



MD. ROUTE 43 EXTENDED
FROM WEST OF U.S. ROUTE 1 TO I-95
SELECTED ALTERNATE
ALTERNATE 4 MODIFIED
STA. 42+00 TO STA. 136+00

SCALE: 1" = 600'

FIGURE II-4



MD. ROUTE 43 EXTENDED
FROM WEST OF U.S. ROUTE 1 TO I-95
SELECTED ALTERNATE
ALTERNATE 4 MODIFIED
STA. 136+00 TO STA. 208+26

SCALE: 1" = 600'

FIGURE II-5

roadway consist of the addition of an acceleration lane from the proposed gore located east of Avondale Road to the existing deceleration lane for the ramp to northbound Harford Road. This would provide a continuous lane between the ramp from westbound Maryland Route 43 and the ramp to northbound Harford Road. The ramps widen to two lanes in each direction and converge approximately 1,200 feet west of Walther Boulevard. The alignment then proceeds easterly to an at-grade intersection with proposed Walther Boulevard. Maryland Route 43 from I-695 to Walther Boulevard would have a 50 mph design speed.

At the intersection with Walther Boulevard, right turn deceleration lanes and double left turn lanes would be provided on Maryland Route 43. Walther Boulevard would be constructed from proposed Rossville Boulevard to existing Kintore Drive as a 55 foot closed section roadway with a 40 mph design speed.

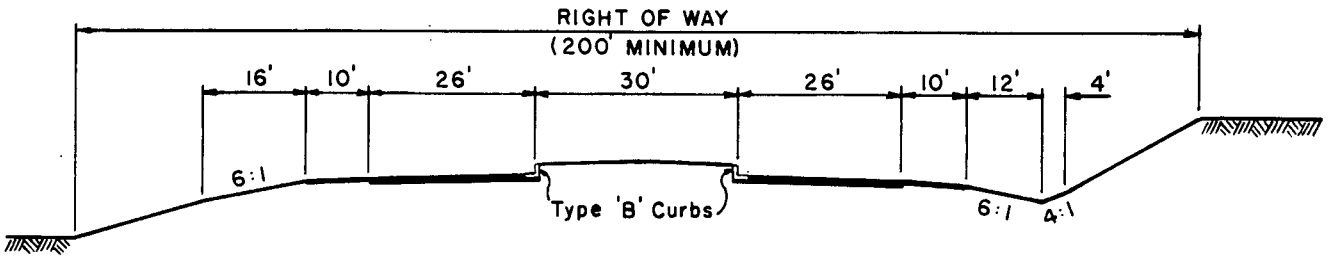
From Walther Boulevard, the alignment would continue easterly, staying on the south side of Whitemarsh Run and passing beneath U.S. Route 1 between the Sunrise Trailer Park and the Ridge Lumber Company. U.S. Route 1 would be maintained at its existing grade and a bridge would be constructed to carry it over Maryland Route 43. Maryland Route 43 from Walther Boulevard to U.S. Route 1 would have a 50 mph design speed.

Maryland Route 43 between I-695 and U.S. Route 1, will be turned over to Baltimore County upon completion. In this section, which passes through a wooded area, special attention will be given to minimizing the environmental and visual impacts on nearby residential communities in this area. Landscaping and fencing will be provided to screen the adjacent

communities and provide a safety barrier to increase safety. The vertical profile has been lowered to reduce visual impacts. In addition, the County will prohibit heavy trucks and commercial vehicles from using this section of Maryland Route 43. Access between U.S. Route 1 and Maryland Route 43 would be provided with two connecting roadways, designated as Ramp A and Ramp B.

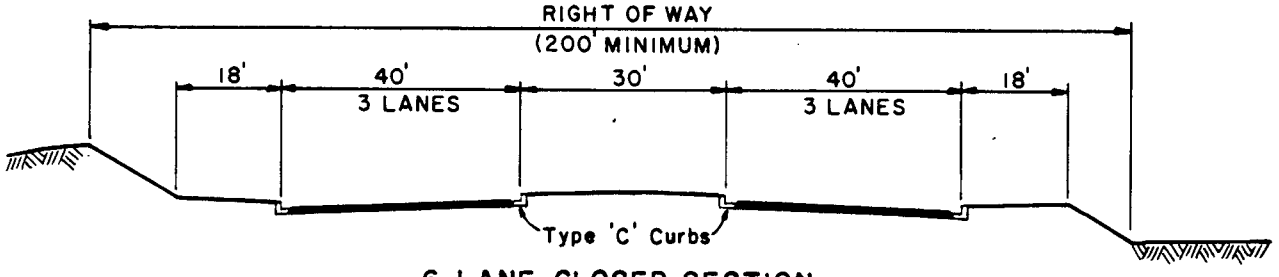
Ramp A (Figure II-4) would be constructed from Maryland Route 43 approximately 600 feet west of U.S. Route 1 to U.S. Route 1 approximately 700 feet north of Maryland Route 43 and would carry all Maryland Route 43 traffic desiring to go south on U.S. Route 1 and all southbound U.S. Route 1 traffic desiring to go either east or west on Maryland Route 43. A deceleration lane would be provided on southbound U.S. Route 1. East of Route 1, Maryland Route 43 would be a six lane closed section roadway with a 30 foot wide raised median. On the westbound roadway the outside lane would drop at the exit to Ramp A, and an auxiliary acceleration lane would be provided west of the intersection. The eastbound roadway would widen to three lanes just west of the intersection with Ramp A and a double left turn would be provided to Ramp A. Ramp A would be a four lane divided closed section roadway with a 20 foot wide raised median, a 40 m.p.h. design speed.

Beyond U.S. Route 1, Maryland Route 43 would curve to the northeast and cross Whitemarsh Run. Ramp B (Figure II-4) would be constructed from U.S. Route 1 opposite Dunfield Road to Maryland Route 43 and convey all northbound U.S. Route 1 traffic desiring to go east or west on Maryland Route 43 and all



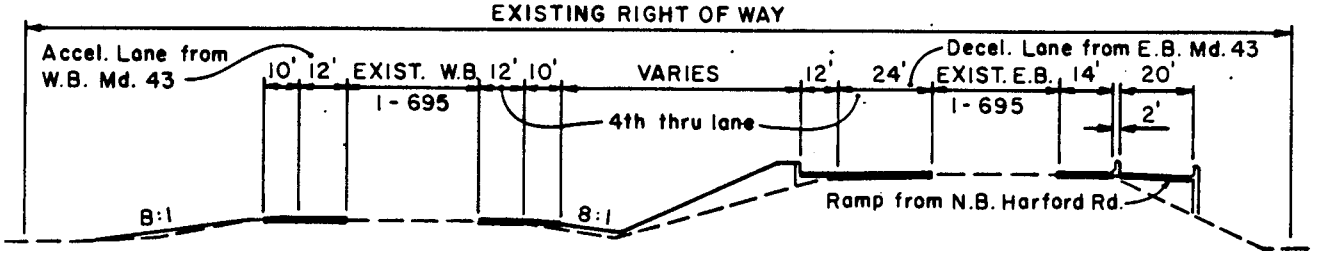
4 LANE OPEN SECTION

MD. RTE. 43 WEST OF RAMP A

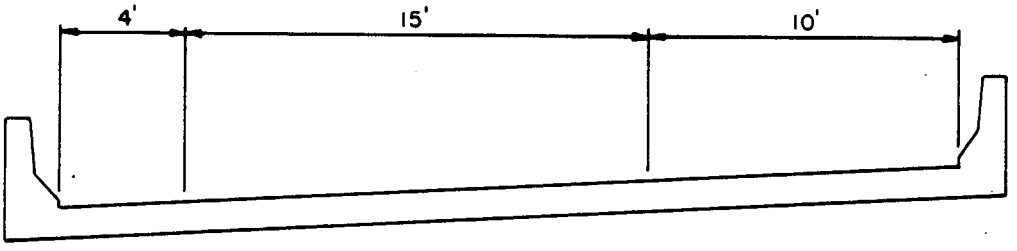


6 LANE CLOSED SECTION

MD. RTE. 43 EAST OF RAMP A



I-695 WIDENING



1 LANE BRIDGE

EASTBOUND MD. RTE. 43 OVER I-695

THE DIMENSIONS SHOWN ARE FOR THE PURPOSE OF DETERMINING COST ESTIMATES AND ENVIRONMENTAL IMPACTS, AND ARE SUBJECT TO CHANGE DURING THE FINAL DESIGN PHASE.

TYPICAL SECTIONS
MD. ROUTE 43

ALTERNATE 4 MODIFIED

NO SCALE FIGURE II-6

and all Maryland Route 43 traffic desiring to go north on U.S. Route 1. There would be deceleration and acceleration lanes on westbound Maryland Route 43 and a double left on eastbound Maryland Route 43 at Ramp B, which would be a four lane divided closed section roadway with a 20 foot wide raised median. There would be a deceleration lane on northbound U.S. Route 1 for the right turn movement to the ramp and the right turn movement from the ramp to northbound U.S. Route 1 would be made as a double right controlled by a signal. No through movements between Dunfield Road and Ramp B would be permitted. Ramp B would have a 40 mph design speed. Maryland Route 43 between U.S. Route 1 and Ramp B would have a 50 mph design speed.

Beyond Ramp B, Maryland Route 43 would curve to the east, following the north side of Whitemarsh Run to an at-grade intersection with Perry Hall Boulevard. This section of the alignment would have a design speed of 60 mph. Right turn deceleration and acceleration lanes as well as double left turn lanes would be provided on Maryland Route 43. Perry Hall Boulevard would be widened through the intersection to provide four basic lanes, double left turn lanes, right turn deceleration lanes and a right turn acceleration lane southbound.

Alternate 4 Modified would continue eastward crossing Honeygo Boulevard as an at-grade intersection and tying into existing Maryland Route 43 between Honeygo Boulevard and I-95. This section of the alignment would have a design speed of 60 mph. Right turn deceleration and acceleration lanes as well

as double left turn lanes would be provided. Honeygo Boulevard would be reconstructed, removing the existing temporary interchange and providing four through lanes, double left turn lanes and deceleration and acceleration lanes.

The following intersections are anticipated to be signalized and their projected levels of service are as follows:

INTERSECTION	LEVEL OF SERVICE (YEAR 2010)
Md. Rte. 43 - Walther Boulevard	E(0.95)*
Md. Rte. 43 - Ramp A	D
Md. Rte. 43 - Ramp B	E(0.94)
U.S. Rte. 1 - Ramp A **	D
U.S. Rte. 1 - Ramp B	E(0.93)
Md. Rte. 43 - Perry Hall Boulevard	E(0.98)
Md. Rte. 43 - Honeygo Boulevard	C

*Volume/Capacity Ratio
**Not Signalized

Currently, there is a large a.m. movement of traffic from the residential areas of White Marsh, Perry Hall, and Belmont to westbound I-695 and a corresponding p.m. movement from eastbound I-695 to the residential areas. This movement will increase as development continues, thereby further congesting the existing roads providing access between the residential areas and I-695 (i.e. U.S. Route 1, Joppa Road, and Harford Road). One of the primary objectives of the study is the provision of another means of access from the residential areas mentioned above to I-695 without diverting through traffic from I-695 and I-95. It is felt that Alternate 4 Modified best meets this objective because it provides the additional access to I-695 without travelling through and dividing a residential area. Also, travel time studies indicate that, although Alternate 4 Modified would provide a slightly shorter distance between I-695

and I-95 (4.4 miles for Alternate 4 Modified vs 5.8 miles for I-695 and I-95), the signalized intersections and lower speed limit on Maryland Route 43 would result in travel time at least 30% longer than the I-695 and I-95 route. It is, therefore, anticipated that few if any motorists would use Maryland Route 43 as a shortcut between I-695 and I-95.

2. U.S. Route 1 Alternates

The No-Build Alternate and two Build Alternates for U.S. Route 1 were developed for presentation at the Location/Design Public Hearing.

a. NO-BUILD ALTERNATE

The purpose of the U.S. Route 1 project planning study is to determine the optimum typical section and alignment for the improvement of U.S. Route 1 from I-695 to north of Silver Spring Road, a distance of 2.06 miles.

Existing U. S. Route 1 within the study area has a minimum of four lanes with a fifth continuous left turn lane through several areas. Lanes in some areas are as narrow as 9 feet. Signalized intersections exist or are planned at the following locations:

Fitch Avenue

Fullerton Plaza/Putty Hill Plaza

Rossville Bouelvard (Planned)

Putty Hill Avenue/Ridge Road

Dunfield Road

St. Joseph's Church

Silver Spring Road

The intersections at Putty Hill Avenue/Ridge Road and Silver Spring Road are operating at or near capacity.

The vertical curves at the following locations do not meet the current design criteria for a 40 mph design speed.

Sag at Rossville Boulevard

Crest at Putty Hill Avenue/Ridge Road

Sag at Whitemarsh Run

Crest at St. Joseph's Church

Sag south of Necker Avenue

Crest north of Necker Avenue

The No-Build Alternate would provide no major improvements to the existing road. Normal maintenance would continue and spot safety improvements would be undertaken where feasible.

As traffic volumes increase as a result of the planned development in the area, congestion and accidents would also increase. The No-Build alternate was not selected because it would provide no improvements in traffic safety, access or capacity.

b. SEVEN LANE ALTERNATE

This alternate would provide an 80-foot wide roadway within a 110-foot wide right-of-way. There would be three (3) lanes in each direction and a center lane serving as a

continuous left-turn lane for direct access to adjacent properties' entrances and intersections. (Figures II-7 thru II-10)

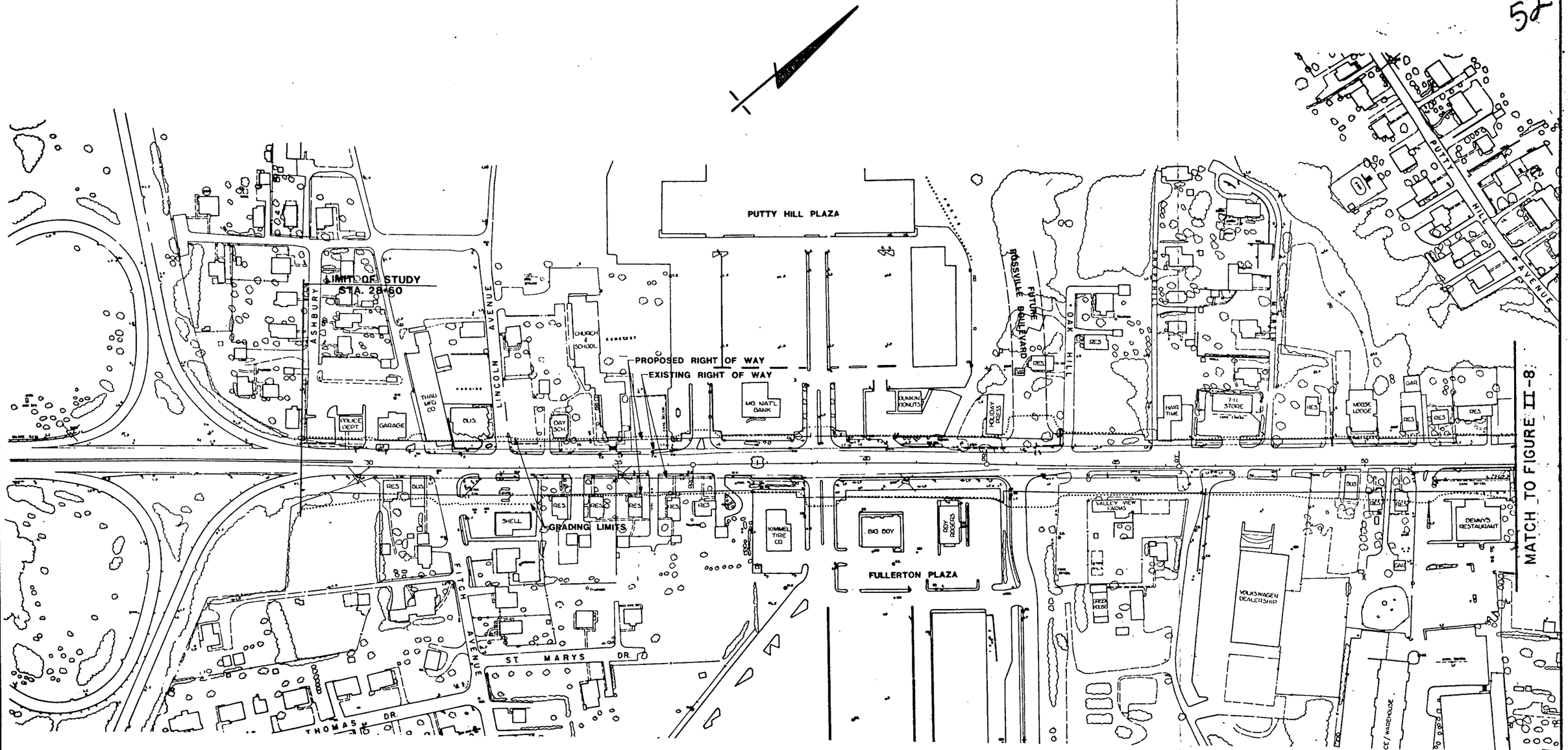
c. SIX-LANE DIVIDED ALTERNATE

This alternate would provide two 35-foot roadway (three lanes in each direction) separated by a 20-foot wide raised median with curbs within a 110-foot wide right-of-way. Left-turn lanes and median openings would be provided at intersections and major traffic generators. (See figures II-7 thru II-10).

The six (6) lane Alternate would generally follow the existing horizontal alignment, with widening on one or both sides depending upon physical constraints. It would provide right turn lanes at major intersections and double left turn lanes at Dunfield Road. Variable width slope easements outside the right of way would be required.

An alternate accommodating either the six or seven lane typical section for U.S. Route 1 will be decided upon during the design phases after additional coordination with public officials, elected representatives and concerned businessmen.

Traffic volumes and hence level of service along U.S. Route 1 are related to the selection of Maryland Route 43 alternate 4 Modified. Figure III-5 shows the Average Daily Traffic (ADT) on U.S. Route 1 and Table IV-1 shows the level of service at the major intersections.



U.S. ROUTE 1 IMPROVEMENTS

FROM I-695 TO NORTH OF SILVER SPRING ROAD

STA. 28+60 TO STA. 53+00

SCALE: 1" = 200'

FIGURE II-7

MATCH TO FIGURE II-7

MATCH TO FIGURE II-9

PUTTY HILL AVENUE

KLEIN'S FEED & SADDLERY

FLOOR LOAN

LORENZO'S BAR

GRADING LIMITS

EXISTING RIGHT OF WAY

RESTAURANT & LIQUOR STORE

SHED

PROPOSED RIGHT OF WAY

GRADING LIMITS

VALUE EQUIPMENT

BUS

RES

STILLMEADOW ROAD

ROLANDS BAR

AMOCO

TIRE DEALER

EXXON

PROPOSED RIGHT OF WAY

EXISTING RIGHT OF WAY

AUTOMOBILE DEALERSHIP

THE RIDGE LUMBER CO.

RES

GAR

GRADING LIMITS

EXISTING RIGHT OF WAY

SUNRISE TRAILER PARK

PROPOSED RIGHT OF WAY

PUTTY HILL GARAGE

WHITEMARSH RUN

OFFICE

WAREHOUSE

WAREHOUSE

RIDGE ROAD

U.S. ROUTE 1 IMPROVEMENTS

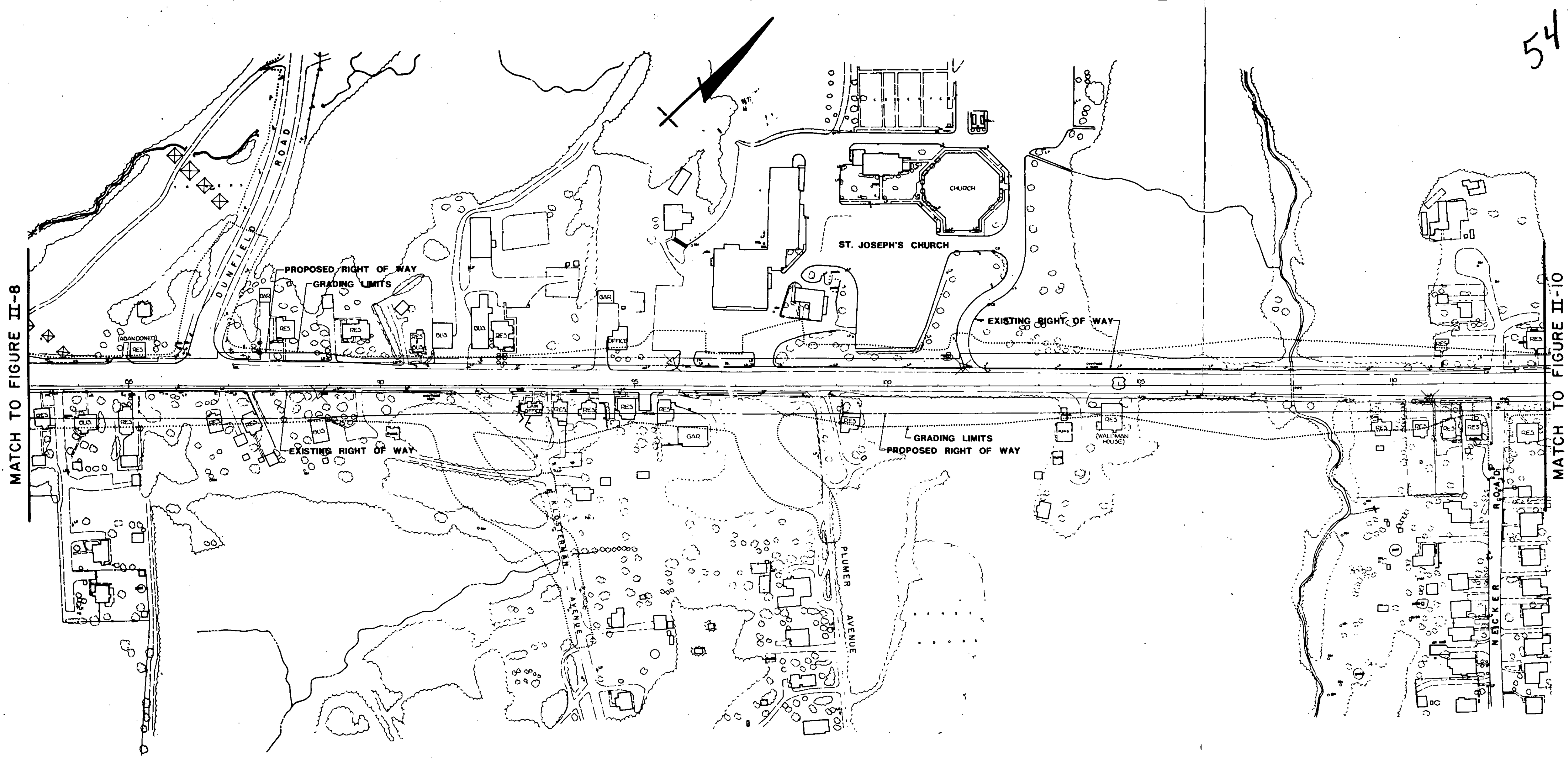
FROM I-695 TO NORTH OF SILVER SPRING ROAD

STA. 53+00 TO STA. 83+00

SCALE: 1" - 200'

FIGURE II- 8

54'



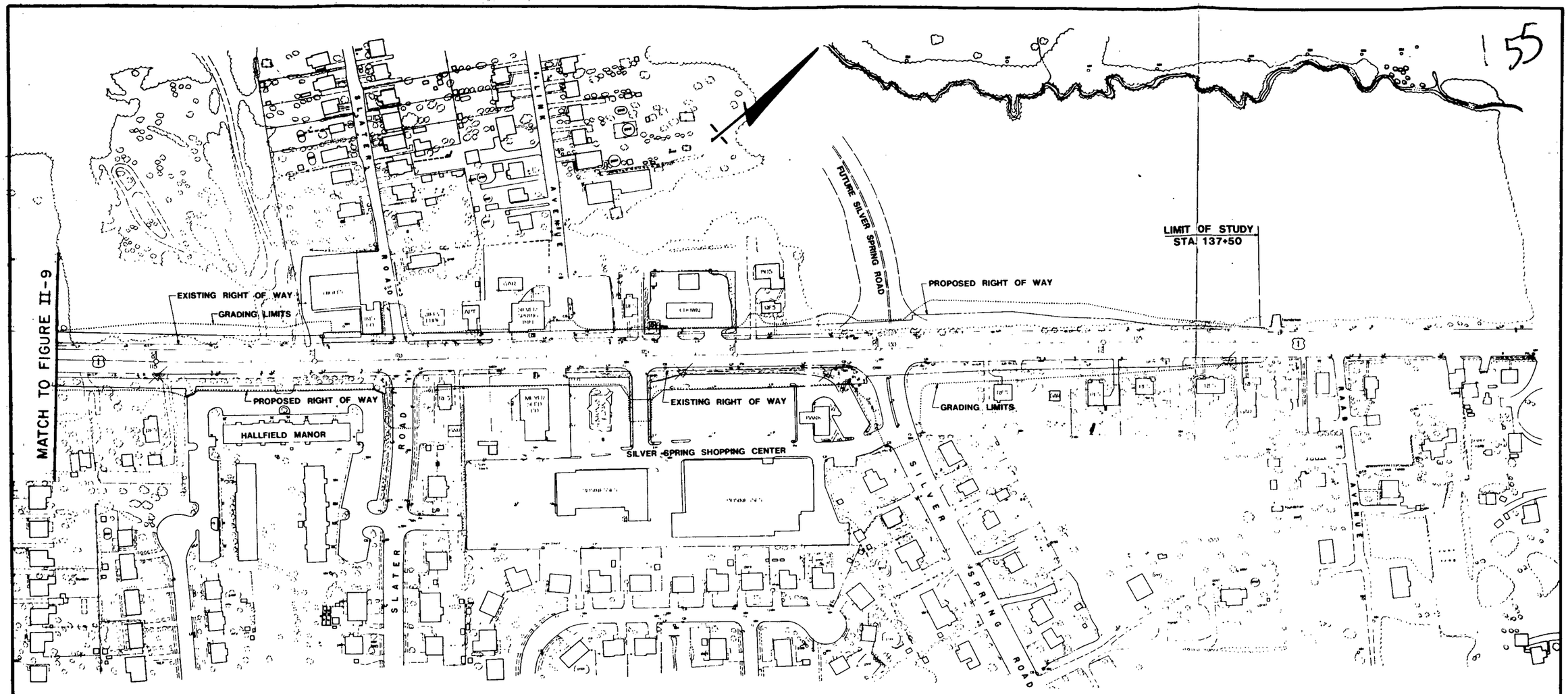
U.S. ROUTE 1 IMPROVEMENTS

FROM I-695 TO NORTH OF SILVER SPRING ROAD

STA. 83+00 TO STA. 113+00

SCALE: 1" = 200'

FIGURE II-9



U.S. ROUTE 1 IMPROVEMENTS

PROM I 695 TO NORTH OF SILVER SPRING ROAD

STA. 113+00 TO STA. 137+50

SCALE: 1" = 200'

FIGURE II - 10

III
AFFECTED ENVIRONMENT

III. AFFECTED ENVIRONMENT

A. Social, Economic, and Land Use

1. Social Environment

a. Population

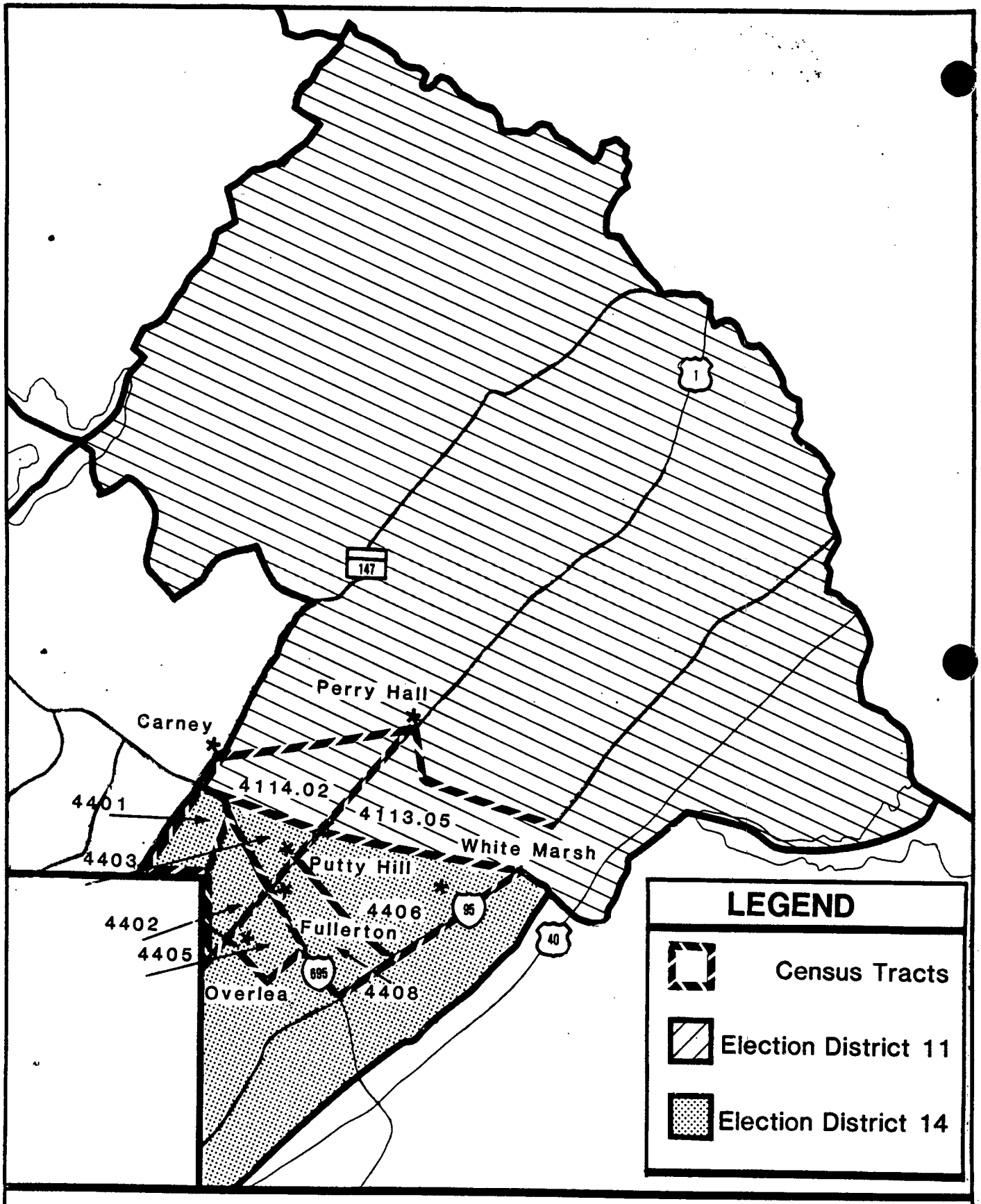
Baltimore County

Baltimore County's population increased by 26.0% from 1960 to 1970, and slowed to a 5.6% increase by 1980. In 1970, most of the county's population was located within the Beltway. Although this is still true, most of the new growth has occurred outside the Beltway.

The 1974 sewer moratoria in the Patapsco, Gwynns Falls and Jones Falls watersheds have resulted in a shift in population distribution in the county. Before 1974, most new growth was occuring in the northwest and western parts of Baltimore County in the areas of Woodlawn, Randallstown, and Reisterstown. Since then, that growth has shifted east to the Perry Hall, White Marsh, Rossville, and Middle River areas within and near the project study area.

Election District 11

The portion of the study area which lies north of Whitemarsh Run is within Election District 11 (See Figure III-1). This district's population increased by 48.2% from 1970 to 1980. This is a significant increase compared to the county as a whole, but even more dramatic increases have occurred in the census tracts which include White Marsh (75.4%), Perry Hall (59.0%), and Carney (401.1%).



ELECTION DISTRICTS AND CENSUS TRACTS

MD. RTE. 43 EXT./U.S. RTE. 1

SCALE 1"=100,000'

FIGURE III-1

TABLE III-1
POPULATION IN STUDY AREA ELECTION DISTRICTS AND CENSUS TRACTS

	1970	1980	Percent of Change 1970-1980
Baltimore County	621,077	655,615	5.6%
Election District #11 Census Tracts:	26,614	39,440	48.2%
4113.01 (White Marsh)1	6,505	11,404	75.3%
4114.01 (Perry Hall)2	5,322	8,460	59.0%
4114.02 (Carney)	1,558	7,807	401.1%
Election District #14 Census Tracts:	36,409	42,258	16.1%
4401 (Parkville)	6,292	5,222	17.0%
4402 (Fullerton)	1,895	2,973	56.9%
4403 (Putty Hill)	465	1,219	162.2%
4405 (Overlea)	3,506	2,858	18.5%
4406	1,318	1,178	-10.6%
4408	638	1,919	200.7%

1 1970 Census Tract 4113.01 was split into three smaller tracts in 1980. The 1980 population is the total of these three tracts.

2 1970 Census Tract 4114.01 was split into two smaller tracts in 1980. The 1980 population in this table is the total of these two tracts.

Election District 14

The study area south of Whitemarsh Run is within Election District 14 (Figure III-1) which has increased at a much lower rate, 16.1%, than District 11. Again, several census tracts within the district experienced high increases including Fullerton (56.9%) and Putty Hill (162.2%).

Perry Hall/White Marsh Study Area

The Perry Hall/White Marsh Study Area is comprised of approximately 12,000 acres roughly bordered by the I-695 Beltway, Belair Road, the Gunpowder River and Pulaski Highway. In 1980 this study area had a population of about 23,000 and had approximately 8,500 dwelling units.

The Baltimore County Office of Planning and Zoning estimates that this area's population and number of housing units will double by 1995. Based on 1984 zoning and density restrictions, the study area population could increase by another 74%, and the number of dwellings units by as much as 75% by 2025.

b. Ethnic Characteristics

The 1980 population within the study area census tracts was 97.1% white, .85% black, 1.5% Asian, and .25% were of some other ethnic background. In addition, .74% of the area's population were of Spanish-speaking origin, and 9.15% were 65 years of age and older.

Although there is a higher than average number of individuals of Asian origin, in several study area census tracts in District 11 (see Table III-2), no Asian communities have been identified within the study area. No other minority communities or concentrations of elderly persons have been identified in the area.

TABLE-III-2
ETHNIC CHARACTERISTICS OF STUDY AREA

	Percent of Pop. Within Study Area Census Tracts	ELECTION DISTRICT #11 CENSUS TRACTS				
		4113.03	4113.04	4113.05	4114.03	4114.04
Total	---	3,914	4,546	2,944	5,085	1,877
White	96.6%	3,877	4,356	2,759	4,894	1,860
Black	.82	11	65	51	20	3
Asian	2.33	21	112	124	164	7
Other	.23	5	13	10	7	7
Spanish speaking origin	1.35	38	99	68	36	7
65 and older	6.9	313	315	91	375	172

	Percent of Pop. Within Study Area Census Tracts	ELECTION DISTRICT #14 CENSUS TRACTS					
		4401	4402	4403	4405	4406	4408
Total	---	5,222	2,973	1,219	2,858	1,178	1,919
White	97.78%	5,199	2,847	1,168	2,853	1,174	1,787
Black	.89	0	35	33	0	0	69
Asian	.72	19	29	12	3	4	45
Other	.27	4	12	6	2	0	18
Spanish speaking origin	.13	74	72	8	5	3	36
65 and older	11.40	799	319	67	306	149	112

(Note: Percentages do not add up to 100% because those of Spanish-speaking origin also fall in other categories)

c. Neighborhoods (Figure III-1)

White Marsh

The community traditionally known as White Marsh is located just east of the study area between I-95 and U.S. Route 40. The area is currently a low density, largely undeveloped area. The White Marsh New Development Area, however, is located west of I-95 and has experienced considerable residential and commercial growth in recent years.

Perry Hall

Perry Hall, located in the north of the study area near Belair and Joppa Roads, is an old farming, mining, and quarrying area composed of nearly 50 neighborhoods. According to the Baltimore County Master Plan the residents of Perry Hall have a strong sense of community identity with both their own smaller neighborhoods and with Perry Hall. Perry Hall's 1980 population was 13,455.

Carney

The community known as Carney is located around the Harford and Joppa Roads intersection in the west end of the study area. Carney had a 1980 population of 21,488.

Fullerton-Overlea

This area is located in the southwest portion of the study area, although Overlea is considered to be south of the Beltway. The area was settled before 1850 by German farmers and many of their descendants still live there. The community is considered very stable and has a strong identity and self-image. The area known as Putty Hill lies within the larger Fullerton area near the center of the study area, at the intersection of Putty Hill Avenue, Ridge Road, and Belair road. The 1980 population was 12,965.

2. Community Facilities (Figure III-2)

a. Churches

Among the various churches scattered throughout the area, two are within the study area. They are St. Joseph's Catholic Church and St. Peter's Lutheran Church. Both of these churches are shown in Figure III-2.

b. Schools

The project area includes two elementary schools (Perry Hall Elementary and Carney Elementary), one Middle School (Perry Hall Middle), and one Senior High School (Perry Hall Senior High School).

There are two additional schools (St. Joseph's Rectory and Church, and St. Peter's Lutheran Church Christian Day School) which are within the project area and are associated with churches.

c. Parks and Open Space

Belmont Park is a 43.5 acre recreational area planned by the county as a neighborhood/community park. The park is located northwest of Belair Road on Jasper Lane and will initially include two ballfields, bathroom facilities, and a pavillion. Development of these facilities is scheduled to begin in 1985. Additional facilities planned for 1990 include a tennis and multi-use court and play equipment.

The area reserved for Fullerton Reservoir, east of Belair Road covers 200 acres of open space owned by Baltimore City.

d. Emergency Services

Fire protection to the project area is primarily provided by two fire companies. One project area fire company,

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LEGEND FOR FIGURE III-2

PARKS, RECREATION AREAS

1. Belmont Park

SCHOOLS

1. Perry Hall Elementary School
2. Perry Hall Middle School
3. Perry Hall Senior High School
4. Carney Elementary School

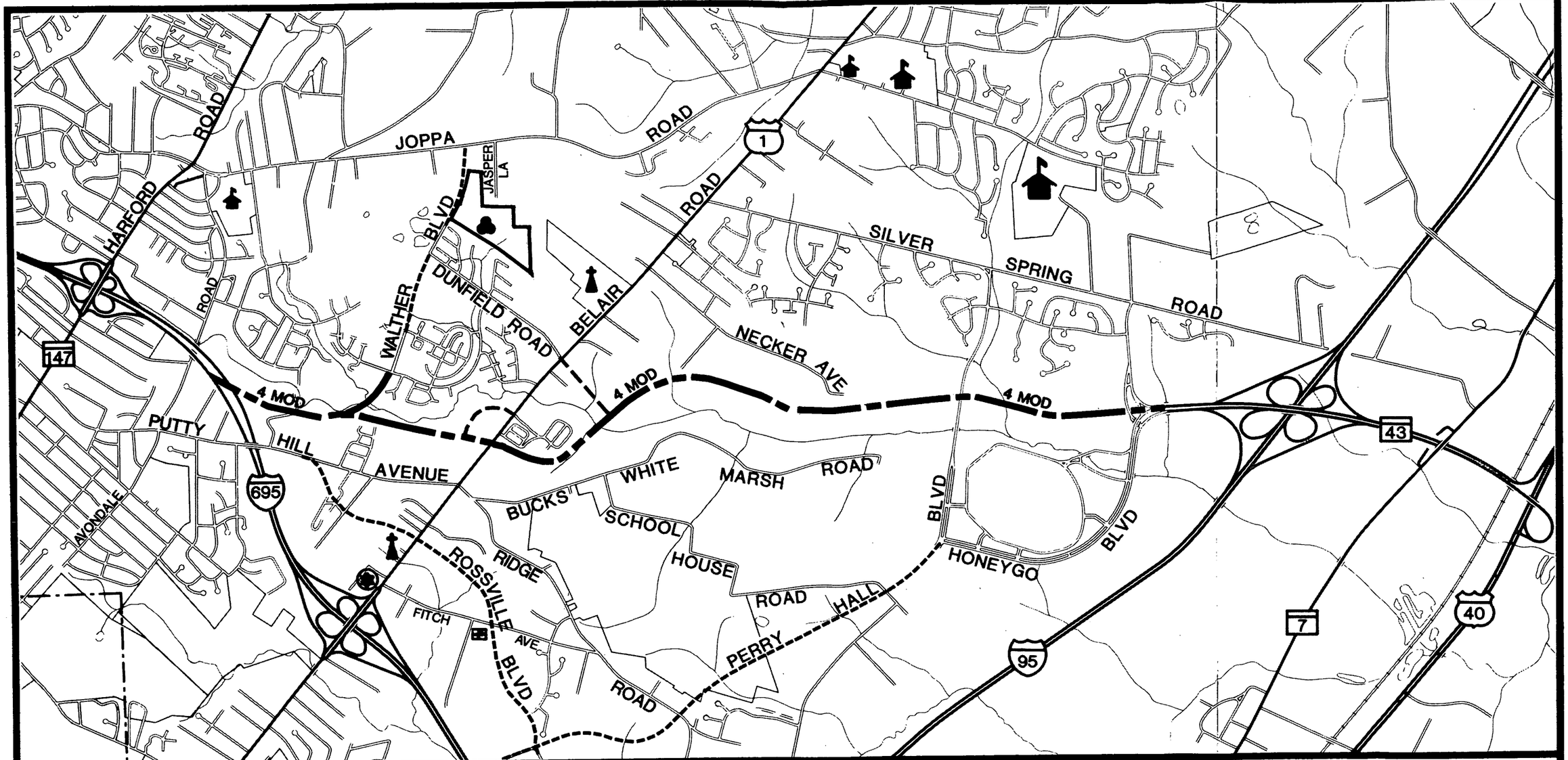
CHURCHES

1. St. Joseph's Rectory and Church (with associated school)
2. St. Peter's Lutheran Church (with associated school)

FIRE STATION

1. Fullerton Station No. 8

POLICE STATION



LEGEND

- Park
- Church
- Fire Station
- Police Station
- Elementary School
- Junior High School
- Senior High School

MARYLAND ROUTE 43

COMMUNITY FACILITIES

SCALE: 1" = 2000'

FIGURE III-2

Fullerton Station No. 8, is located on Fitch Avenue at Fitch Lane.

The planning area is also served by two additional fire companies which are outside of the project limits. One fire company is at the intersection of Old Harford Road and Putty Hill Avenue. The other fire company is on Ebenezer Road, between Maryland Route 7 (Philadelphia Road) and U.S. Route 40 (Pulaski Highway).

e. Law Enforcement

The project area is served by a police station located in the northwest quadrant of the Baltimore Beltway/ Belair Road intersection.

Another police station, outside the project limits, is located at the Old Harford Road/Putty Hill Avenue intersection.

f. Medical Facilities

At present, there are no health or hospital facilities within the limits of the project area. The nearest hospital is the Franklin Square Hospital, on Franklin Square Drive, approximately 3 miles from the project area.

3. Economic Setting

Baltimore County's labor force, like that of the nation as a whole, has changed significantly in the last few years. In the past, "blue collar" jobs such as machine operations and assembly, offered the greatest opportunities for the largest numbers of people. The trend now, however, is an increasing demand for white collar workers, especially in sales, technical and clerical work.

These trends are evident in both Election Districts 11 and 14 where the technical, administrative, clerical, and sales sectors have increased 3-7% since 1970. At the same time, the number of people employed as craftsmen, machine operators, fabricators, laborers and in related work declined 1-5%.

Baltimore County has designated the White Marsh area as one of two major new growth centers in the county. This growth includes a major retail shopping facility (White Marsh Mall), and a major business community (White Marsh Business Park). Long range plans also include an industrial park east of I-95.

The current trends toward white collar job opportunities can be expected to increase as the White Marsh New Development Area nears completion. The Perry Hall/White Marsh area is expected to have as many as 40,000 new jobs by 2025. The partially constructed business park already has over 70,000 square feet of office and warehouse space with another 25,000 square feet of office space under construction.

The 1979 median household income in Election District 11 was $25,097 - slightly higher than Baltimore County's 1980 household median income of $23,045. District 14 had a 1979 household median income of $21,943, lower than the county's median. 1196 persons (3.04% of the total) had a 1979 income below poverty level in District 11. District 14 had 1631 persons (3.89% of the total) with incomes below poverty level that year.

TABLE III-3

	ELECTION DISTRICT #11			ELECTION DISTRICT #14		
	% of all employed persons		% of Change	% of all employed persons		% of Change
	1970	1980	1970-1980	1970	1980	1970-1980
Professional, Technical, Managerial, Administrative	28.1	31.8	+3.7	21.2	25.7	+4.5
Clerical, Sales	25.5	32.4	+6.9	30.6	33.9	+3.3
Service	7.8	8.9	+1.1	8.1	9.9	+1.8
Craftsmen, Foremen, Precision Production	18.3	13.8	-4.7	20.6	15.5	-5.1
Operators, Fabricators, Laborers	14.2	11.8	-2.4	15.0	14.2	-0.8
Farm, Forestry, Fishing	2.4	1.4	-1.0	.5	.8	+.3
Other	3.8	---	---	4.0	---	---

Labor Force and Employment Characteristics, Maryland 1970 Social Indicator Series, Maryland Department of State Planning

Census of Population of Housing, 1980, Summary Tape File, U.S. Census Bureau

4. Land Use

a. Existing Land Use (Figure III-3)

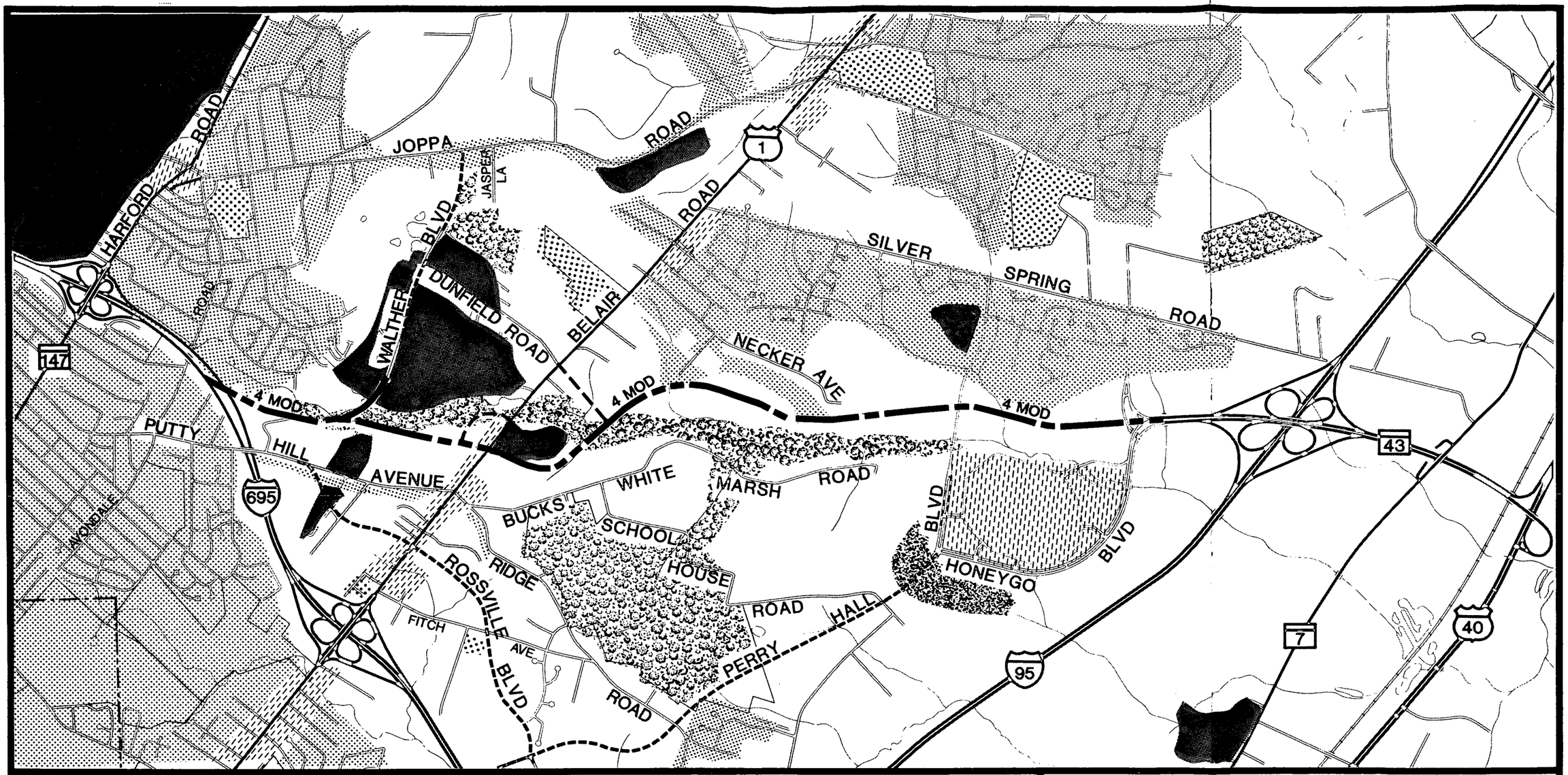
The predominant land use in the study area is medium to high density residential, except along the major roads, such as Belair Road, which are mostly commercial mixed with a few residences. In addition, White Marsh Mall covers approximately 150 acres within the study area. Most new growth in the area is occurring along Belair Road north of the Beltway.

Residential development is most intense in the western section of the project corridor near Putty Hill and Carney. In the past ten years, several new townhouse and apartment developments have been built just west of Belair Road between Putty Hill and Perry Hall. Also, new townhouses and single family homes have been built just south of Silver Spring Road in the White Marsh New Development area.

The area between Belair Road and I-95 is least intensely developed, and large vacant tracts of land are evident some of which are in agricultural use. A large trailer park is located east of Belair Road and north of Bucks School House Road.

The White Marsh Business Park is located on approximately 200 acres south and southwest of White Marsh Mall, and includes three office and warehouse facilities which are in various stages of development.

Open space in the area (as designated in the General Development Plan, Baltimore Region, 1982 and Maryland Department of State Planning's Land Use Map, Baltimore County, 1981), includes proposed Belmont Park (43.5 acres) which is administered by Baltimore County, and the proposed Fullerton



LEGEND

Residential
- Rural
- Low-Moderate Density
- Moderate-High Density

- Commercial
- Institutional
- Industrial
- Open Space

MARYLAND ROUTE 43

EXISTING LAND USE

SCALE: 1" = 2000'

FIGURE III-3

Reservoir (200 acres) which is owned and currently being held in reserve (for possible future construction) by Baltimore City.

b. Future Land Use (Figure III-4)

Baltimore County's growth management program attempts to encourage population increase and development in areas which are well- suited for development, while reducing the desirability of areas identified as unsuited for more than very limited development. The County's Master Plan and the General Development Plan (Baltimore Region) concentrate new development in existing population centers and in two new designated growth areas. Baltimore County's Approved 1984 Comprehensive Zoning Map closely reflects future land use in the study area as proposed by the 1982 General Development Plan. Since the Future Land Use map in Figure III-4 is based on that plan, there is no need to include both maps.

The White Marsh area is one of the two new growth centers. Residential, commercial, office, and industrial development are all recommended for the area. The number of housing units is expected to double by 1995, resulting in about 17,000 total units. A density as high as 11 dwelling units per acre is recommended for some areas. The areas south and north of Silver Spring Road and east of Belair Road are intended for low-to-moderate intensity residential development consisting primarily of attached units with some single-unit detached structures, as well as garden apartments.

The area west of Honeygo Boulevard and south of the residential area along Silver Spring Road is intended for additional commercial and office development.

LEGEND

Residential
- Rural
- Low -Moderate Density
- Moderate -High Density

- Commercial
- Institutional
- Industrial
- Open Space

MARYLAND ROUTE 43

FUTURE LAND USE

SCALE: 1" = 2000'

FIGURE III-4

Industrial land use is planned for the land south and east of Honeygo Boulevard, and between I-95 and U.S. Route 40 along White Marsh Boulevard.

Currently, the public water and sewer connections necessary for new development are in place except in the northern part of the Perry Hall/White Marsh Study area near the Gunpowder River. The necessary transportation improvements are not in place, however, the County supports timely implementation of these improvements to prevent the premature development of the area at a lower density than is intended.

B. Transportation

1. Transportation Facilities

a. Existing Facilities

The north/south movement of traffic through the study area is currently provided by Interstate 95, which is six lanes; U.S. Route 1 (Belair Road) and Maryland Route 147 (Harford Road), both four lane roads with additional center turn lanes; and Avondale Road, a two lane county road.

The east/west traffic movement within the study area is provided by Interstate 695, which is six lanes; Putty Hill Avenue, Ridge Road and Joppa Road, each two lane roads; and Silver Spring Road which has five lanes, including a left-turn center lane.

An informal commuter parking area with approximately thirty-five (35) parking spaces exists on Dunfield Road just west of U.S. Route 1. Baltimore County is currently planning a ridesharing facility of approximately 250 spaces at Harford Road and Jomat Avenue. No additional park and ride facilities are currently programmed for development.

In addition to the highway network, the Mass

Transit Administration (MTA) serves radial routes oriented toward Baltimore City's central business district. Bus route #15A serves Belair Road and White Marsh Mall via Silver Spring Road, Perry Hall Boulevard, and Honeygo Boulevard.

b. Planned Facilities

Baltimore County plans to construct several new roads in the northeast corridor (Figure II-1). Improvements of particular importance to the Maryland 43 Extended study include the extension of Silver Spring Road from U.S. Route 1 to Joppa Road, Honeygo Boulevard from Silver Spring Road to U.S. Route 1 north of Perry Hall, Perry Hall Boulevard from Honeygo Boulevard to Rossville Boulevard, Rossville Boulevard from Perry Hall Boulevard to Putty Hill Avenue, and Proctor Lane from Harford Road to Walther Boulevard. County plans for construction of Campbell Boulevard from Honeygo Boulevard to Philadelphia Road are not currently available. These improvements are expected to be completed by 1990 or 2010 (Design Year) and have been included in the No-Build network.

According to county plans, Walther Boulevard will be constructed by the developer in segments as residential development proceeds, with the County providing construction of Walther Boulevard from Joppa Road to Gunview Road. Ultimately, the county would like to extend Dunfield Road from Honeygo Boulevard to Joppa Road, however these plans are contingent upon the construction of Maryland 43 Extended.

2. Traffic Volumes

Projected traffic volumes in the project vicinity for No-Build conditions for 1990 and 2010 are shown on Figure

ADTs			
ALT	1983	1990	2010
1	99,500	123,000	154,000
3		123,500	158,000
3A		123,000	154,000
3B		123,000	153,000
3B MOD.		123,000	153,000
4 MOD.	99,500	123,500	158,000

ADTs			
ALT	1983	1990	2010
1	20,000	28,000	44,000
3		23,000	35,000
3A		23,000	37,000
3B		26,000	36,000
3B MOD.		26,000	36,000
4 MOD.	20,000	23,000	35,000

ADTs			
ALT	1983	1990	2010
1	16,000	14,200	19,000
3		13,375	9,000
3A		13,200	14,000
3B		13,000	12,000
3B MOD.		13,000	12,000
4 MOD.	16,000	13,375	9,000

ADTs			
ALT	1983	1990	2010
1	33,000	35,500	38,000
3		33,000	54,600
3A		40,000	51,600
3B		40,000	51,600
3B MOD.		40,000	51,600
4 MOD.	33,000	33,000	54,600

ADTs			
ALT	1983	1990	2010
1	14,000	21,300	40,000
3		8,000	15,000
3A		6,000	15,000
3B		8,000	15,000
3B MOD.		8,000	15,000
4 MOD.	14,000	8,000	15,000

ADTs			
ALT	1983	1990	2010
1	59,000	76,000	107,000
3		76,500	
3A		76,000	
3B		76,000	
3B MOD.		76,000	
4 MOD.	59,000	76,500	107,000

ADTs			
ALT	1983	1990	2010
1	40,600	41,600	51,000
3		30,825	44,900
3A		46,700	61,600
3B		43,000	57,600
3B MOD.		43,000	57,600
4 MOD.	40,600	30,825	44,900

ADTs			
ALT	1983	1990	2010
1	38,400	38,800	46,400
3		34,500	53,000
3A		41,000	52,000
3B		39,000	49,000
3B MOD.		39,000	49,000
4 MOD.	38,400	34,500	53,000

ADTs			
ALT	1983	1990	2010
1	38,400	38,800	46,400
3		28,025	40,300
3A		43,900	57,000
3B		40,000	55,000
3B MOD.		40,000	55,000
4 MOD.	38,400	34,500	53,000

ADTs			
ALT	1983	1990	2010
1	38,900	40,800	53,800
3		28,775	47,100
3A		43,600	63,800
3B		40,000	59,800
3B MOD.		40,000	59,800
4 MOD.	38,900	28,775	47,100

ADTs			
ALT	1983	1990	2010
1	97,500	121,000	151,000
3		107,500	126,000
3A		121,000	151,000
3B		121,000	151,000
3B MOD		121,000	151,000
4 MOD	97,500	107,500	126,000

ADTs			
ALT	1983	1990	2010
1	43,500	48,500	66,000
3		40,000	55,000
3A		49,000	70,000
3B		45,000	64,000
3B MOD.		45,000	64,000
4 MOD.	43,500	40,000	55,000

ADTs			
ALT	1983	1990	2010
1	94,000	116,500	145,000
3		113,000	133,000
3A		116,000	143,000
3B		116,000	143,000
3B MOD.		116,000	143,000
4 MOD.	94,000	113,000	133,000

ADTs			
ALT	1983	1990	2010
1	76,000	97,000	138,000
3		93,500	124,000
3A		96,000	134,000
3B		96,000	134,000
3B MOD.		96,000	134,000
4 MOD.	76,000	93,500	124,000

LEGEND

ADT AVERAGE DAILY TRAFFIC

PROPOSED BALTIMORE COUNTY ROADS

AVERAGE DAILY TRAFFIC

EXISTING ROAD NETWORK

SCALE: 1" = 2000'

FIGURE III-5

III-5. For comparison, 1983 volumes are also shown. All traffic volumes are Average Daily Traffic (ADT) with both directions combined. These forecasts indicate the traffic demand associated recent zoning changes for planned land use development if no improvements are made to U.S. Route 1 and Maryland Route 43 Extended is not constructed through the study area.

3. Traffic Operations

Level of Service (LOS) describes traffic operating conditions and varies primarily with traffic volume and number of lanes. It is a measure of such factors as speed, traffic interruptions or restrictions, and freedom to maneuver. Six levels of service, designated A through F, from best to worst, have been established to identify traffic operation (Highway Capacity Manual, 1965). Level of Service A represents a condition of relatively free flow (low volumes and higher speeds). Level B and C describe conditions involving stable flow but increasing restrictions on operating speeds and maneuvering. Level of Service D approaches unstable flow (tolerable delays in case of urban streets) while level of Service E represents unstable flow with sometimes intolerable delays. At Level of Service E volumes are at or near the capacity of the highway. Level of Service F represents conditions below capacity in which there are operational breakdowns with forced flow.

The level of service during the hour of peak traffic on an average day at critical locations in the study area for 1983 and 2010 under no-build conditions are as follows:

Location	1983 LOS	2010 LOS
U.S. 1 & Fitch Ave.	C	F
U.S. 1 & Fullerton Plaza	B	E
U.S. 1 & Putty Hill Ave.	F	F

Location	1983 LOS	2010 LOS
U.S. 1 & Dunfield Rd.	B	F
U.S. 1 & Silver Spring Rd.	E	F
MD 43 at I-95	C	F
I-95 at MD 43	C	F
MD 43 & Honeygo Blvd.	A	C
Silver Spring Rd. & Honeygo Blvd.	A	B
Silver Spring Rd. & Perry Hall Blvd.	A	A
I-695 & U.S. 1	D	D

An accident analysis was performed for the study area for the years 1977 through 1981 and the following High Accident Intersections were identified.

High Accident Intersections

Location	Years
U.S. 1 @ Fitch Avenue	1978, 1979, 1980
U.S. 1 @ Lincoln Avenue	1979
U.S. 1 @ Klein Avenue	1979
U.S. 1 @ Martin Avenue	1979
U.S. 1 @ Putty Hill Avenue	1978, 1979, 1980, 1981
U.S. 1 @ Stillmeadow	1979
U.S. 1 @ Dunfield	1978, 1979
U.S. 1 @ Slater Avenue	1978, 1979, 1980
U.S. 1 @ Silver Spring	1979

In addition, one High Accident Section was identified.

High Accident Sections

Location	Years
U.S. 1, from Oak Hill Avenue to North of Putty Hill Road	1978, 1979

The 1977-1981 Accident Rate/100 MVM for U.S. Route 1 from I-695 to Silver Spring is lower than the statewide average for similar roads under state maintenance, however the types of

accidents are indicative of the congestion and uncontrolled access along Route 1.

U.S. 1 - I-695 to Silver Spring Road

Severity	1977	1978	1979	1980*	1981*	Total
Fatal Accidents	0	0	0	0	1	1
Injury Accidents	50	48	65	52	64	279
Property Damage Accidents	96	110	93	30	37	366
Total Accidents	146	158	158	82	102	646

1977-1981 Rate/100MVM 593
Statewide Mean Rate/100MVM 695

	1977	1978	1979	1980*	1981*	Total
Intersection Related Accidents	65	62	65	38	33	263
Driveway Related Accidents	20	31	36	11	36	134
Truck Accidents	9	12	4	2	1	28

*Note - The low number of property damage accidents may be attributed to the reduced accident reporting policy adopted by the various police agencies, beginning in 1980.

Overall conditions are expected to continually grow worse as traffic is projected to increase despite the capacity constraints of the existing facilities.

C. Natural Environment

1. Topography and Geology

The Maryland Route 43 study area lies along the Fall Line between the Coastal Plain and Eastern Piedmont physiographic provinces. The topography is generally rolling with stream valleys providing major relief.

The Coastal Plain sediments are primarily Cretaceous, with small pockets of Pliocene formation. These deposits are briefly listed and described below:

Potomac Group - interbedded quartzose gravels, quartzitic argillaceous sands; and white, dark gray, and multicolored silts and clays.

The Piedmont formations are a mix of metasedimentary, metamorphic and igneous rocks. The most extensive of these in the study area is the Baltimore Gabbro Complex. Descriptions of this and other Piedmont formations are provided below:

Baltimore Gabbro Complex - hypersthene gabbro with subordinate amounts of olivine gabbro, norite, anorthositic gabbro, and pyroxenite, igneous minerals and textures well preserved in some rocks and varying to complete recrystallization.

Port Deposit Gneiss - moderately to strongly deformed intrusive complex of biotite, quartz diorite, hornblende-biotite quartz diorite and biotite granodiorite.

2. Soils

Soils in the study area belong to three (3) associations, as defined by the U.S. Department of Agriculture, Soil Conservation Service (SCS) (Soil Survey, Baltimore County Maryland, 1976). These are listed and described briefly in order of abundance.

Beltsville-Chillum-Sassafras Association - level to moderately sloping, moderately well drained with silt loam or silty clay loam subsoils, or well drained soils with sandy clay loam to silt loam subsoil, generally upland.

Manor - Glenelg Association - gently sloping to very steep, deep, well-drained and somewhat excessively drained with loam to light silty clay loam subsoils, generally upland.

Loamy and Clayey land - Lenoir - Beltsville Association - nearly level to steep land of sandy loam to clay loam over clay, somewhat poorly drained and moderately drained with silty clay loam and silt loam subsoils.

These soils associations are composed of numerous soil types. None have significant limitations for roadway construction. The SCS mapping of Important Farmlands for Baltimore County indicates there are no prime, unique, or other farmland soils of statewide importance in the study area.

3. Water Resources

a. Surface Water

The study area is almost entirely within the Whitemarsh Run watershed. A very small area in the northernmost portion of the study area drains into Gunpowder Falls. Streams and ponds are shown on the Environmental Map (Figure III-6).

The Maryland Department of Natural Resources (DNR), Water Resources Administration (WRA), has classified all surface waters of the state into four categories, according to desired use. These categories are:

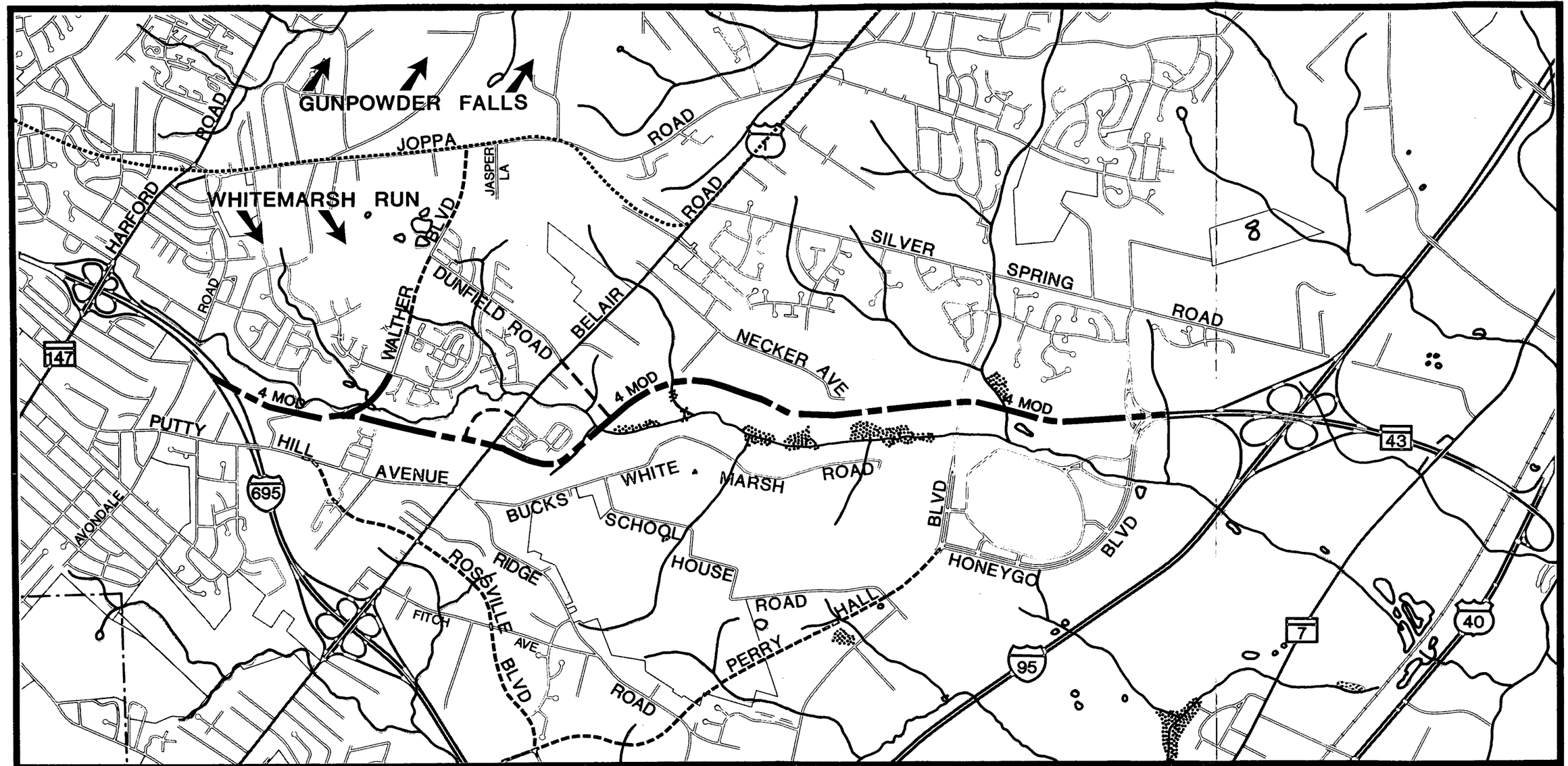
Class I - Water contact recreation, for fish, other aquatic life, and wildlife.

Class II - Shellfish harvesting

Class III - Natural Trout Waters

Class IV - Recreational Trout Waters

All waters of the state are Class I with additional protection provided by higher classifications. Whitemarsh Run and all its tributaries are designated Class IV, however, it is not being stocked for fishing.



LEGEND

STREAMS

WATERSHED LIMITS

PONDS

WETLANDS

MARYLAND ROUTE 43

ENVIRONMENTAL MAP

SCALE: 1" = 2000'

FIGURE III-6

b. Groundwater

Groundwater in the study area is primarily provided by wells in Hydrologic Unit III of the Piedmont Aquifers. These are some of the poorest aquifers within the mapped area. The Patuxent Formation outcrops the study area and these are part of the recharge area for the state's most productive aquifers.

c. Water Uses

Streams in the study area are used for informal recreation. No formal recreation facilities make use of the stream system.

Non-point pollution, including septic systems, and stormwater runoff from urban and urbanizing areas is the greatest threat to water quality in the study area.

d. Floodplains

The Federal Emergency Management Agency (FEMA), Federal Insurance Administration (FIA) has prepared floodplain mapping for Whitemarsh Run and its tributaries. Beneficial values associated with the 100 year floodplain include natural moderation of floods, improvement of water quality, groundwater recharge, and wetland and upland habitat. Detailed 100 year floodplain limits are delineated on the detailed alternates mapping in Section II of this document.

4. Ecology

a. Terrestrial Habitat

Much of the study area has been developed into residential areas with commercial activity along the highways. Most of the undeveloped land is in the stream valleys where steep slopes, poor soils, and flooding limit construction.

Forested areas are predominant along Whitemarsh Run with some Old Field community scattered throughout the undeveloped sections of the study area. The forest communities in the study area include:

> Chestnut Oak - Post Oak - Blackjack Oak Association - dominant along Whitemarsh Run, particularly in the western section of the study area, includes eastern Chinquapin, sassafras, Virginia pine, red cedar, and pitch pine; understory is usually comprised of blueberries, huckleberries, and mountain laurel.
>
> River Birch - Sycamore Association - generally found in the floodplain; characterized by riverbirch and/or syacmore; representative species include slippery elm, green ash, spicebush, and poison ivy; other common species include red maple, Virginia creeper, greenbnars, Japanese honeysuckle, tulip poplar, and black gum.

The other major component of the terrestrial habitat in the study area is Old Field community. These are areas which were logged or farmed and are returning to their natural state. They are generally younger successional stages of forest development, from grassy-weedy areas to brushy fields with shrubs and young trees. The flora varies, but typically includes grasses, asters, goldenrod, sumac, shrubs, and saplings. These are important wildlife areas because the "edge" that meets other natural communities provides much more habitat diversity than with any single community.

b. Aquatic Habitat

The aquatic community of the Maryland Route 43 study area primarily includes streams, although some small

ponds and wetlands do exist. Whitemarsh Run and its tributaries are the primary aquatic habitats in the area. Development pressure in the watershed is rapidly converting the remaining open space to residential communities and commercial activity.

Whitemarsh Run and the undeveloped valley surrounding it represents the last remaining natural habitat in the study area. It is an important scenic, recreational and natural area. As noted previously, Whitemarsh Run and its tributaries is designated as Class IV, Recreational Trout Waters, although it has not been stocked recently.

c. Wetlands

Wetlands are essential components of the freshwater ecosystems in the study area, providing valuable habitat for numerous plant and animal species. Wetland vegetation provides flood protection, silt retention, control of some types of waste water pollution, erosion protection, and is an important source of food for aquatic life. Wetlands in the study area have been identified by field inspections and the U.S. Department of the Interior, National Wetlands Inventory (Draft, June, 1983).

The predominant wetland types in the study area are briefly described below. Wetlands in the study area are identified in Figure III-6.

> Palustrine Aquatic Bed - dominated by plants that growth principally on or below the surface; usually in permanent water or repeatedly flooded; plants are either rooted to the bottom, or float freely.

Palustrine Emergent - characterized by erect, rooted, herbaceous hydrophytes including cattails (Typha spp.), bulrushes (Scirpus, spp.), sedges (Carex spp.), reed (Phragmites communis), and a variety of broad-leaved persisent emergents; may also contain nonpersistent emergents such as arrow arum (Peltandra virginica) and arrowheads (Saggitaria spp.).

Palustrine Scrub-Shrub (broad-leaved deciduous) - areas dominated by woody vegetation less than 6 meters tall; including true shrubs, young trees, and environmentally small or stunted trees; typical dominants are alders (Alnus, spp.), willows (Salix spp.), buttonbush (Cephalanthus spp.), and young trees such as red maple (Acer rubrum).

Paulstrine Forested (broad-leaved deciduous) - characterized by woody vegetation 6 m tall or taller dominants include red maple, American elm (Ulmus americana), and ashes (Fraxinus spp.).

d. Wildlife

The Maryland Route 43 study area supports a relatively small wildlife community. This is largely due to the amount of development in the Whitemarsh Run watershed. Species such as deer, rabbit, squirrel, racoon, dove, waterfowl, reptiles, amphibians, and fish provide potential for passive observation and recreation. Coordination with DNR, Wildlife Administration, and U.S. Fish and Wildlife Service indicates there are no known populations of threatened or endangered plant or animal species in the study area. (See correspondence from these agencies in Section VI.)

e. Coastal Zone

The study area for this project lies outside of the area covered by the Maryland Coastal Zone Management Program.

D. Air Quality

The Maryland Route 43 project is within the Metropolitan Baltimore Intrastate Air Quality Control Region. While only a portion of the region does not meet the primary standards for carbon monoxide (CO), the entire region is subject to transportation control measures such as the Vehicle Emission Inspection Program.

A detailed microscale air quality analysis has been performed to determine the CO impact of the proposed project which is described in further detail in Section IV.D.

E. Noise Quality

The major contributors to the existing noise levels in the study area consist of commercial and light industrial development and residential traffic. Highway traffic noise is usually measured on the "A" weighted decibel scale "dBA", which is the scale that has a frequency range closest to that of the human ear. In order to give a sense of perspective, a quiet rural night would register about 25dBA, a quiet suburban night about 35dBA, a commercial area about 60dBA, and a very noisy urban daytime about 80dBA. Under typical field conditions, noise level changes of 2-3 dBA can barely be detected, with a 5dB change readily noticeable. A 10dB increase is judged by most people as a doubling of sound loudness. (This information is presented in the "Fundamentals and Abatement of Highway Traffic Noise" by Bolt, Beranek & Newman, Inc. for FHWA, 1980). The ambient L_{10} noise levels measured in the study area ranged approximately from 40 to 67 dBA. More information on the ambient noise survey conducted as part of this study is contained in Section IV-E.

F. Cultural Resources

1. Historic Sites

Seventeen (17) sites are considered to be Maryland Historical Trust Inventory (MHTI) level of significance. Four MHTI level sites will be impacted by this project. One site has already been acquired by Baltimore County for their acquisition of right of way for Walther Boulevard. Information on these sites is available in the files of the Maryland State Highway Administration, 707 North Calvert Street, Baltimore, Maryland 21202.

The Maryland Historical Trust Inventory is an inventory of sites and structures of varying levels of significance which are approximately fifty years old. These sites and structures will not meet the criteria for inclusion in the National Register of Historic Places and do not merit any special protection under state or federal law. Three of these sites would be impacted by the U.S. Route 1 widening.

2. Archeological Sites

An archeological assessment of the study area has been completed by the Division of Archeology of the Maryland Geological Survey (MGS). Their findings indicate that because of "extensive prior disturbance of the study area, low archeological potential and failure of previous surveys in the area to locate archeological sites, a preliminary archeological reconnaissance survey" of the area was not warranted. The Maryland State Historic Preservation Officer is in agreement with this conclusion. See the letters in the Correspondence Section from the Maryland Geological Survey and the State Historic Preservation Officer dated August 12, 1983 and December 20, 1983.

IV
ENVIRONMENTAL CONSEQUENCES

IV. ENVIRONMENTAL CONSEQUENCES

A. Social, Economic and Land Use Impacts

1. Relocations

An analysis of the probable residential displacement caused by the proposed alternates has also been made by the State Highway Administration. Relocation of any families and individuals displaced by the proposed project will be accomplished in accordance with the Uniform Relocation Assistance and Land Acquisition Policies Act of 1970 (P.L. 91-446). A summary of the relocation assistance program of the State of Maryland is in Appendix B.

No-Build Alternate

No relocations or displacements would occur under this alternate.

Maryland Route 43 Selected Alternate (4 Modified)

A total of eight (8) residential displacements will occur under the selected alternate. Six (6) of these displacements will also occur under the selected U.S. Route 1 alternate and are also included in the total displacements incurred as a result of the U.S. Route 1 improvements.

Alternate 4 Modified will displace two (2) retail businesses, one of which will also be displaced under the U.S. Route 1 improvements.

U.S. Route 1 Improvements

Approximately 20 residential displacements will occur under this alternate, nine of which are tenant occupied. Six of the displacements reflected in the total will also be

acquired under the selected alternate for Maryland Route 43. Based on the Baltimore County Multiple Listing Service, replacement housing is available and within financial means for all displacees.

This alternate will also displace approximately seven (7) businesses - one manufacturing concern and six (6) retail establishments, one of which will also be displaced under the selected Maryland Route 43 alternate.

The State Highway Administration will assist any displaced businesses in relocating. Due to increasing commercial development along U.S. Route 1, any displaced businesses should be able to relocate within the project area. No adverse effect is expected in the neighborhoods in which the displacees will be relocated. Relocation of residences and businesses is expected to occur in a timely and satisfactory manner and without undue hardship to the displacees.

A reasonable lead time of between 18 and 30 months would be necessary to properly administer the relocation assistance program as required by "The Uniform Relocation Assistance and Land Acquisition Policies Act of 1970" (see Appendix B). The right of way report is available for review at the State Highway Administration, 707 N. Calvert Street, Baltimore, Maryland.

2. Access to Community Facilities and Services

No-Build Alternate

Under this alternate traffic conditions will continue to worsen in sections of the project area where congestion is increasing. Children, bicyclists, pedestrians, and

motorists will all experience increased safety hazards and increased travel time to community facilities.

3. Disruption of Neighborhoods and Communities

Neither of the selected alternates are expected to produce any significant adverse impacts to the integrity of neighborhoods throughout the project area. Neither of the alternates will divide existing communities.

4. Effects on Minorities, Handicapped, Elderly Persons

No minorities, handicapped, or elderly persons are expected to be displaced under either of the build alternates.

5. Summary of Equal Opportunity Program of Maryland State Highway Administration

It is the policy of the Maryland State Highway Administration 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, religion, physical or mental handicap in all State Highway Administration program projects funded in whole or in part by the Federal Highway Administration. The State Highway Administration will not discriminate in highway planning, highway design, highway construction, the acquisition of right of way, or the provision of relocation advisory assistance.

This policy has been incorporated into all levels of the highway planning process in order that proper consideration may be given to the social, economic, and environmental effects of all highway projects. Alleged discriminatory actions should be addressed to the Equal Opportunity Section of the Maryland State Highway Administration for investigation.

6. Economic Impacts

No-Build Alternate

This alternate is consistent with Baltimore County's long range economic goals for the Perry Hall/White Marsh area. The County wants the area to provide increasing employment opportunities as a balance to the residential growth occurring

and planned in White Marsh. The No-Build Alternate will discourage economic development in this area, and would possibly result in losing it to other areas either outside the Baltimore region or to areas in the region that are not recommended for such development.

Selected Alternates

a. Effect on Regional Business Activities

One of the County's long range goals is to encourage development of employment centers (such as the proposed White Marsh Town Center) to balance the planned rate of commercial and residential growth. The Selected Alternates will improve access to the area and traffic operations throughout the area, thus, making the project area more attractive to business. New employment opportunities will be available, allowing more people to find work in White Marsh and surrounding areas. In addition, commuting time for many local residents would be shortened by these new employment opportunities.

The growth management plan in the Baltimore County Master Plan, 1979-1990, considers the short, medium, and long range trends for White Marsh and the surrounding communities. The Selected Alternates will facilitate planned development of new housing and major employment centers in the area.

b. Effect on Tax Base

Since the Baltimore County Master Plan, 1979-1990, supports the growth of the White Marsh Area, extensive development is expected to follow completion of the project. It is likely that as the area is developed, property values and tax assessments will rise and the community will become increasingly urban in character. Investment in the White Marsh Town Center

would also enhance the revenue base.

7. Land Use Impacts

No-Build Alternate

This alternate is not consistent with the Baltimore County Master Plan, 1979-1990 or the General Development Plan of 1982. The county has designated the Perry Hall/White Marsh Area as a major growth area, and supports the timely implementation of the needed transportation network. Failure to provide this network could result in pressure to develop other areas of the county which are not recommended for development.

Selected Alternates

The Selected Alternates are consistent with the adopted Baltimore County Master Plan and with the General Development Plan. The county supports increased development in the northeastern part of the county where accessibility to employment is greater, and more adequate highway capacity exists or is likely to be improved. The county also acknowledges the need to improve existing transportation facilities and construct new facilities to serve new growth areas.

Construction of Maryland Route 43 Extended and improvements to U.S. Route 1 would accelerate the transition from a mixed urban and agricultural community to a more urbanized community. This transition is intended to preserve the more rural areas elsewhere in the county, and would minimize "sprawl" and the associated costs of providing public services to areas where growth is not recommended.

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Construction of Maryland Route 43 Extended and improvements to U.S. Route 1 would accelerate the transition from a mixed urban and agricultural community to a more urbanized community. This transition is intended to preserve the more rural areas elsewhere in the county, and would minimize "sprawl" and the associated costs of providing public services to areas where growth is not recommended.

ADTs	
YEAR	ALT 4 MOD.
1990	16,000
2010	38,000

ADTs	
YEAR	ALT 4 MOD.
1990	14,000
2010	20,300

ADTs	
YEAR	ALT 4 MOD.
1990	12,300
2010	23,600

ADTs	
YEAR	ALT 4 MOD.
1990	12,300
2010	23,600

ADTs	
YEAR	ALT 4 MOD.
1983	15,000
1990	21,500
2010	41,000

ADTs	
YEAR	ALT 4 MOD.
1990	8,075
2010	12,300

ADTs	
YEAR	ALT 4 MOD.
1990	18,925
2010	36,000

ADTs	
YEAR	ALT 4 MOD.
1990	25,000
2010	45,000

ADTs	
YEAR	ALT 4 MOD
1990	29,000
2010	55,300

ADTs	
YEAR	ALT 4 MOD.
1990	21,500
2010	41,000

LEGEND

- ADT AVERAGE DAILY TRAFFIC
- PROPOSED BALTIMORE COUNTY ROADS
- ALTERNATE 4 MODIFIED
- INTERCHANGE
- GRADE SEPARATION

AVERAGE DAILY TRAFFIC

ALTERNATE 4 MODIFIED

SCALE: 1" = 2000'

FIGURE IV-1

B. Transportation

Design Year (2010) Average Daily Traffic (ADT) forecasts for Alternates 1 (No-Build) and 4 Modified for Maryland Route 43 are shown in Figures IV-1. Design Year ADT forecasts for the U.S. Route 1 are shown in Figure III-5.

Design year (2010) levels of service for various major intersections in the project area for the Maryland Route 43 and U.S. Route 1 selected alternates are shown in Table IV-1. A comparison of the 2010 level of service for build and no-build conditions indicates either the same level of service or a general improvement of one or two levels. Level of service would remain the same at various intersections due to increasing traffic volumes.

Traffic operations associated with each alternate are discussed below.

No-Build Alternate

As traffic volumes increase, congestion on existing roads would increase. Levels of Service would continue to deteriorate. This alternate is not considered feasible and has been retained as a comparison for the Build Alternate.

Alternate 4 Modified (Selected Alternate)

Alternate 4 Modified provides a direct connection between I-695 and White Marsh, thereby relieving traffic congestion and improving safety on the existing arterial roads (i.e., U.S. Route 1 and Harford Road) serving I-695. This alternate does not create any additional signalized intersections along U.S. Route 1. Traffic would be diverted from existing east-west roads, thereby increasing traffic safety, capacity, and

LEVEL OF SERVICE SUMMARY

(V/C in Parenthesis)

LOCATION	1983 EXISTING CONDITIONS	YEAR 2010 NO-BUILD U.S. 1 5 Lanes	YEAR 2010 MD. 43 ALTERNATE (Footnote 2) 4 MODIFIED	COMMENTS
U.S. 1 & Fitch Ave.	C	F(1.03)	C	
U.S. 1 & Fullerton Plaza	B	E(1.00)	C	
U.S. 1 & Rossville Blvd.	NA	F(1.11)	F(1.14)	
U.S. 1 & Putty Hill Ave.	F(1.06)	F(1.05)	D	
U.S. 1 & Dunfield Rd.	B	F(1.13)	E(0.93)	5 lanes on Dunfield Road
U.S. 1 & Silver Spring Rd.	E(0.94)	F(1.80)	F(1.07)	
I-695 & Maryland 43	NA	NA	D	
MD. 43 & Walther Blvd.	NA	NA	E(0.95)	
MD. 43 & U.S. 1	NA	NA	Footnote 1	
MD. 43 & Perry Hall Blvd.	NA	NA	E(0.98)	
MD. 43 & Honeygo Blvd.	A	C	C	
MD. 43 at I-95	C	F	D	
I-95 at MD. 43	C	F	D	
Walther Blvd. & Rossville Blvd. Connection	NA	NA	NA	
Walther Blvd. & Dunfield Rd.	A			
Joppa Rd. & Walther Blvd.	NA	F(1.88)	F(1.64)	2 lanes on Joppa Road
Joppa Rd. & MD. 43	NA	NA	NA	2 lanes on Joppa Road
Silver Spring Rd. & Perry Hall Blvd.	A	A	A	
Silver Spring Rd. & Honeygo Blvd.	A	B	A	
I-695 at U.S. 1	D	D	D	8 through lanes on I-695. Improvements to this interchange are not part of this project
U.S. 1 at I-695	B	C	C	
Harford Rd. & Joppa Rd.		F(1.34)	F(1.16)	

FOOTNOTE 2: Levels of service are calculated based on the six lane divided alternate for U.S. Route 1.

FOOTNOTE 1:
MD. 43 & Ramp A Level D
MD. 43 & Ramp B Level E (0.94)
U.S. 1 & Ramp A Level D
U.S. 1 & Ramp B Level E (0.93)

NOTES: 1. Level of service applies to the hour peak traffic on an average day.

2. All levels of service in 2010 assume Putty Hill Ave. will be closed east of Rossville Blvd. as proposed by Baltimore County.

3. V/C = volume/capacity ratio.

access to residential and commercial developments both east and west of U.S. Route 1. This alternate does not pass through any established residential communities.

Beneficial impacts of the Selected Alternate, 4 Modified, on the study area traffic, would be increased capacity for east west through movements and a reduction of volumes along existing routes resulting in a better level of service.

C. Energy

There are only marginal differences in the operational energy requirements for the Build and No-Build alternates. Traffic congestion as evidenced by design year (2010) travel times is expected to improve with the build alternates as opposed to No-Build. This would tend to improve energy efficiency. Access to transit facilities would improve but significant impacts on transit usage are not anticipated.

The build alternates would create secondary energy consumption during construction which would not be required by the No-Build Alternate. This includes energy used for construction equipment, and manufacturing construction materials and delivery. In addition, disruption of traffic during construction would likely cause increases in secondary energy consumption.

D. Natural Environment

1. Effects on Topography, Geology, and Soils

Construction of roadways and interchanges will require

modifications to existing topography to provide the necessary grades, drainage, grade separations, and compatibility with existing land use.

The Selected Alternate for Maryland Route 43 would involve changes in terrain along its length. The maximum height of any cut or fill would be approximately 50 feet, occuring in the vicinity of U.S. Route 1. Cuts and fill will be necessary where existing topography is too severe to maintain desired grades along existing ground.

Roads form barriers to natural drainage because of the need to remove water from the pavement and keep it out of the base material. Landscaping and drainage structures, such as berms, swales, ditches, culverts, and bridges will be designed to replace the natural drainage to provide for new conditions imposed by the presence of the new highway within the drainage basin. Stream relocations are discussed in Section IV-D. 3.

Because of bedrock outcrops in the area, some rock excavation may be required for roadway cuts and drainage and to expose unweathered rock for bridge footings. The location and extent of such rock excavation will be determined during the development of final roadway plans and profiles following detailed soil borings and analysis. No unique or otherwise significant geologic features will be adversely affected.

Appropriate erosion and sediment control and stormwater management measures will be stringently employed, as required by the State Highway Administration and the Maryland

Water Resources Administration. Fugutive dust will be controlled by revegetation and by use of water or hygroscopic chemicals on unpaved roads during dry weather construction.

No prime farmland soils will be used for highway right of way. Soil erosion and nutrient runoff from vegetated highway embankments is expected to be less than that from active agriculture in the area.

2. Effects on Water Resources

Numerous variables affect the quantity of pollutants which are washed into streams. However, impacts can be greatly reduced by controlling the application of maintenance and de-icing materials, periodic pavement sweeping, litter control, use of grassed drainage ditches, stormwater management ponds, and other methods of slowing the flow of stormwater runoff. The proximity of the Selected Alternate for Maryland Route 43 to Whitemarsh Run makes stormwater management critical to maintaining water quality in the study area.

Stormwater runoff will be managed under the Department of Natural Resources new stormwater management regulations in the following order of preference:

1) on-site infiltration
2) flow attenuation by open swales and natural depressions
3) stormwater retention structures
4) stormwater detention structures

It has been demonstrated that these measures can significantly reduce pollutant loads and control runoff. Future runoff will not exceed present rates for existing land uses.

Many of the soils in the study area are highly erodible. Siltation and sedimentation, especially during construction, could cause physical damage such as clogging of ditches and conduits and alteration of stream channels. Small waterways, such as the upper reaches of streams in this area, are more susceptible to impacts associated with erosion and silting because of their shallow cross-sections and variable flows.

Special measures to minimize or eliminate erosion and sedimentation during road construction and later use include provisions for drainage, retaining walls, cribbing, vegetation restoration, rip rap, sedimentation basins, filter fabric fences, and other protective devices. Infiltration/retention/detention basins can also be used for sediment control and stormwater management.

Final design for the proposed improvements will include plans for grading, erosion and sediment control, and stormwater management, in accordance with state and federal laws and regulations. They will require review and approval by the Maryland State Water Resources Administration (WRA) and Maryland Department of Health and Mental Hygiene Office of Environmental Programs (OEP).

A sediment and erosion control program was adopted by the State Highway Administration in 1970. It incorporates the standards and specifications of the Soil Conservation Service and specifies procedures and controls to be used on highway construction projects. These procedures and controls will be stringently

applied to limit the generation and transport of silt. This will be particularly important where construction will be required on steeply sloping stream valleys or in areas of soil having a high erosion potential. This plan would include the following.

-Staging of construction activities to permanently stabilize ditches at the top of cuts and at the foot of fill slopes prior to excavation and formation of embankments.

-Seeding, sodding, or otherwise stabilizing slopes as soon as practicable to minimize the area exposed at any time.

-Timed placement of sediment traps, temporary slope drains and other control measures.

Additional right-of-way needed for these measures will be taken from lands lying between the proposed highway and White Marsh Run, which would also be beneficial to aquatic resources by reducing development pressures adjacent to the floodplain.

Since the alternates will pass through areas of varying slope, soil erodibility, stream size, and vegetation associations, specific control measures could best be defined after design features have been considered. Stringent application of available erosion control technology, should result in minimal adverse impacts to the existing surface water quality.

The Selected Alternate would reduce groundwater recharge in areas where overburden is thin and bedrock aquifers are exposed. Much of the underlying bedrock in the study area belongs to the Patuxent formation's (part of the Potomac Group) sand and gravel facies. These areas contribute to the recharge of the Patuxent aquifer. Since deep cuts are not anticipated for the project, significant adverse impacts to groundwater supplies are not expected.

3. Stream Modifications

The Selected Alternate for Maryland Route 43 would require the realignment of two sections of Whitemarsh Run and a tributary near Bucks School House Road. Approximately 500 feet of Whitemarsh Run would be replaced by 420 feet of new channel west of Walther Boulevard, and 380 feet of original channel would be replaced by 340 feet of new channel east of Walther Boulevard. The Alternates Meeting brochure indicated that Alternate 4 would have required 1,000 L.F. of stream relocation, all of which was White Marsh Run. As a result of refinements which were made to Alternate 4 Modified, the majority of stream relocation will occur to a minor tributary of White Marsh Run in the vicinity of Sunrise Trailer Park. The relocation of this tributary is included in the total 1600 L.F. relocation required under Alternate 4 Modified. As a result of meetings with the Department of Natural Resources and U.S. Fish and Wildlife Service, the amount of stream relocation required for this tributary has been reduced from 1180 L.F., as stated in the DEIS, to 840 L.F. Coordination with both agencies will continue throughout the Final Design Phase.

There are no stream modifications associated with the proposed U.S. Route 1 improvements.

Construction of the proposed channel modifications would result in short-term changes in stream environment which include the removal of streambank vegetation, the creation of a more uniform and unstable substrate, and creation of a higher potential for stream erosion. Increases in stream turbidity during construction will result in a temporary adverse impact to stream biota. With Alternate 4 Modified, existing stream bed in Whitemarsh Run would be lost, thereby reducing the number of benthic invertebrates available as food sources for higher trophic-level organisms (i.e. fish).

The relocated stream segments would be constructed in the dry and would have a substrate of similar composition to the existing channel. Through coordination with the Department of Natural Resources efforts to recreate equal lengths of stream channel will be included in the realignment. Highway fill slopes adjacent to the new stream channel would be stabilized and revegetated immediately during construction.

In addition to these stream realignments, several streams and drainage swales will be crossed by the Selected Alternate. These crossings are indicated on the detailed plans in Section II B. Appropriate drainage structures will be incorporated into the design of these crossings.

The proposed stream modifications and crossings would require Waterway Construction Permits from Maryland Department of Natural Resources, Water Resources Administration, and possibly Section 404 permits from the U.S. Army Corps of

Engineers.

4. Effects on Wetlands

Pursuant to Executive Order 11990, Protection of Wetlands, wetland areas potentially affected by the proposed project were identified. Mapping provided by the U.S. Fish and Wildlife Service, and field surveys were used to identify these wetlands. Neither the Selected Alternate for Maryland Route 43 or improvement under consideration for U.S. Route 1 would require the alteration of any wetlands.

5. Flood Hazard Evaluation

The Selected Alternate for Maryland Route 43, Alternate 4 Modified, would involve two encroachments on the 100-year floodplain of Whitemarsh Run. The crossing just east of U. S. Route 1 (Bel Air Road) would require approximately 1.4 acres of fill in the 100-year floodplain, and construction near the intersection of Walther Boulevard would require approximately 5.4 acres of floodplain involvement.

Additional fill would be required for improvements to U.S. Route 1 in the vicinity of White Marsh Run, resulting in encroachment on the 100-year floodplain.

Modifications to the alignments selected for Maryland Route 43 and proposed for U.S. Route 1 were examined. Geometric standards and constraints imposed by existing development limit the adjustments which can be made. The use of standard hydraulic design techniques for all waterway openings would incorporate structures to limit upstream flood level increases and approximate existing downstream flow rates. No significant floodplain impacts are expected to occur as a result of the Selected Alternate.

All floodplain encroachments were reviewed closely in the field and from proposed preliminary design plans. This review included coordination with the U.S. Corps of Engineers and the Maryland Department of Natural Resources Administration. In accordance with the requirements of FHPM 6-7-3-2, the impacts of each encroachment were evaluated to determine if it was a significant encroachment. A significant encroachment would involve one of the following:

- a significant potential for interruption or termination of a transportation facility which is needed for emergency vehicles or provides a community's only evacuation route,
- a significant risk, or
- a significant adverse impact on natural and beneficial floodplain values.

None of the proposed floodplain encroachments will significantly affect upstream water surface elevations or storage capacity.

By utilization of state-of-the-art sediment and erosion control techniques and stormwater management controls none will result in risks or impacts to the beneficial floodplain values or provide direct or indirect support to further development within the floodplain. Therefore, all floodplain encroachments were determined to be non-significant. In accordance with FHPM 6-7-3-2 a floodplain finding is not required.

6. Effects on Terrestrial and Aquatic Habitats

Both terrestrial and aquatic habitats would be affected by the proposed action. Alternate 4 Modified, which was selected for Maryland Route 43 would require the loss of 79.7 acres of woodland habitat and 19.9 acres of old field habitat for right-of-way. No loss of habitat acreage would occur as a result of the improvements proposed for U.S. Route 1.

The loss of habitat would be accompanied by a proportional loss in animal populations inhabiting these areas. Few undisturbed tracts of land remain in the study area. According to the Baltimore County Master Plan, many of these areas are planned for future development.

As discussed previously, numerous stream crossings and stream realignments are proposed. Potential impacts include sedimentation, pollution by roadway runoff, and loss of vegetative cover. Sediment and erosion control plans will help minimize the adverse effects of construction activities, and proper stormwater management will reduce the amount of roadway pollutants which reach the stream. These control measures will reduce the potential adverse impacts to aquatic life.

On August 23, 1983 the Fisheries Division of the Maryland Department of Natural Resources performed an on-site inspection of the White Marsh Watershed. (See letter 6/11/84).

Although this stream is Class IV, recreational trout waters, no trout were found to exist in this system. Various species of minow were observed, suggesting a thermal problem exists in the watershed. Futher observations and data indicate frequent flooding, and heavy sedimentation of the

mainstream of Whitemarsh Run due to intensive commercial and residential development of the surrounding areas.

Additional coordination with National Marine Fisheries Service indicates that rechannelization of sections of Whitemarsh Run above U.S. Route 40 will have no adverse effect on anadromous fish populations. (See letter 6/11/84)

7. Effects on Threatened or Endangered Species

Correspondence with the U.S. Fish and Wildlife Service and Maryland Department of Natural Resources - Wildlife Administration, indicates there are no known populations of threatened or endangered species in the study area. (See Section VI).

E. Air Quality Impacts

1. Analysis Objectives, Methodology, and Results

The objective of the air quality analysis is to compare the carbon monoxide (CO) concentrations estimated to result from traffic configurations and volumes of each alternate with the State and National Ambient Air Quality Standards (S/NAAQS). The NAAQS and SAAQS are identical for CO: 35 PPM (parts per million) for the maximum one-hour period and 9 PPM for the maximum consecutive eight-hour period.

A microscale CO pollution diffusion analysis was conducted using the third generation California Line Source Dispersion Model, CALINE 3. This microscale analysis consisted of projections of one-hour and eight-hour CO concentrations at sensitive receptor sites under worst case meteorological conditions for the No-Build and the Build Alternates for the design year (2010) and the estimated year of completion (1990).

a. Analysis Inputs

A summary of analysis inputs is given below. More detailed information concerning these inputs is contained in the Maryland Route 43 Extended Air Quality Analysis which is available for review at the Maryland State Highway Administration, 707 North Calvert Street, Baltimore, Maryland 21202.

Background CO Concentrations

In order to calculate the total concentration of CO, which occurs at a particular receptor site during worst case meteorological conditions, the background CO concentrations are considered in addition to the levels directly attributable to the facility under consideration. The background concentration resulting from area-wide emissions from both mobile and stationary sources was assumed to be the following:

	CO, PPM	
	1 hour	8 hour
1990	3.3	1.7
2010	2.6	1.3

Traffic Data, Emission Factors, and Speeds

The appropriate traffic data was utilized as supplied by the Bureau of Highway Statistics (May and June 1983, January, 1984) of the Maryland State Highway Administration.

The composite emission factors used in the analysis were derived from the Environmental Protection Agency (EPA) Mobile Source Emission Factors, and were calculated using the EPA MOBILE 1 computer program. An ambient air temperature of 20° F was assumed in calculating the emission factors for both

the 1 hour and 8 hour analysis in order to approximate worst case results for each analysis case. Credit for a vehicle inspection maintenance (I/M) emission control program beginning in 1984 was included in the emission factor calculations.

Average vehicle operating speeds used in calculating emission factors were based on the capacity of each roadway link considered, the applicable speed limit, and external influences on speed through the link from immediately adjacent links. Average operating speeds ranged from 25 mph to 55 mph for the No-Build and the Selected Alternates depending upon the roadways under consideration.

Meteorological Data

Worst-case meteorological conditions of 1 meter/second for wind speed and atmospheric stability class F were assumed for both the 1 hour and 8 hour calculations. In addition, as stated above, a worst-case temperature of 20° F was assumed.

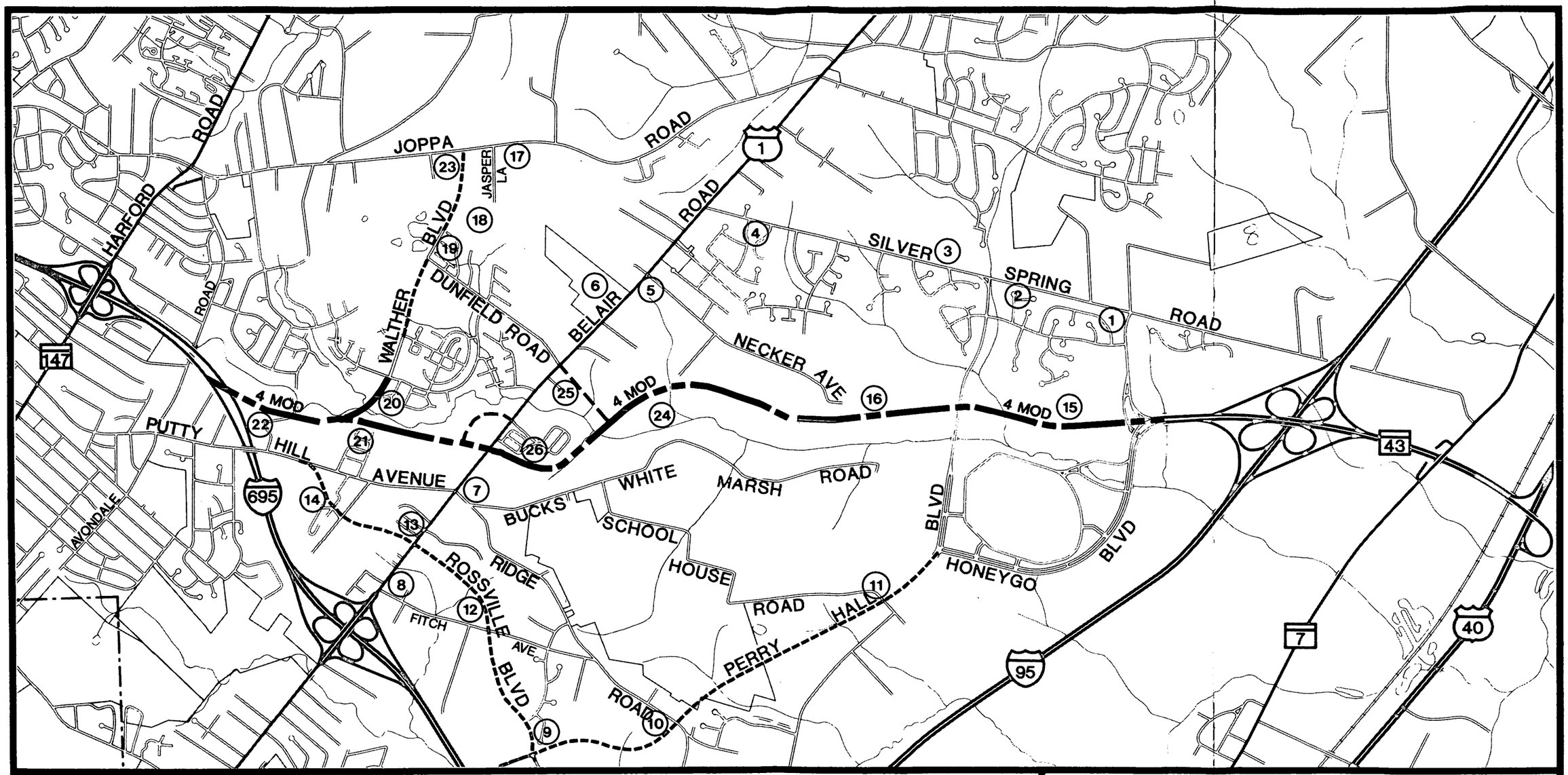
The wind directions utilized as part of the analysis were rotated to maximize CO concentrations at each receptor location. Wind directions varied for each receptor were selected through a systematic scan of CO concentrations associated with different wind angles.

b. Sensitive Receptors

Site selection of sensitive receptors was made on the basis of proximity to the roadway, type of adjacent land use, and changes in traffic patterns on the roadway network. Twenty-six (26) receptor sites were chosen for this analysis consisting of twenty-three (23) residences, a church, a park, and

a tennis club. The receptor site locations were verified during study area visits by the anlaysis team. A general receptor site location map is shown on Figure IV-2.

SITE NO.	DESCRIPTION/LOCATION
1	Residence, Split-level frame, Saxon Avenue
2	Residence, Split-level frame, Shoreham Court
3	Residence, 1 story brick, Silver Spring Road
4	Residence, 2 story brick, Silver Spring Road
5	Residence, 2 1/2 story brick, Belair Road
6	St. Joseph's Fullerton Parish/School/Convent Belair Road
7	Residence, 2 story frame, Belair Road
8	Residence, 2 story stucco, Belair Road
9	Residence, 2 story brick/frame, Lark Meadow Court, Village of Hickory Hollow
10	Residence, 2 story frame, Ridge Road
11	Residence, 1 story brick/stone, Bucks School House Road
12	Residence, 2 story frame, Fitch Avenue
13	Residence, 2 story stucco, Oak Hill Road
14	Residence, 2 story brick, Rolling View Avenue
15	Burnam Woods Apartments, Raylon Drive
16	Residence, 1 story frame, Necker Avenue
17	Residence, 2 story brick, E. Joppa Road
18	Belmont Park, Edge of Right of Way Receptor
19	Townhouses, 2 story brick/frame, Lerner Court
20	Apartments, 3 story Garden, Thurmont Road
21	Apple Hill Apartments, 3 story brick/frame block, Ridgetown Road



LEGEND

MARYLAND ROUTE 43

AIR and NOISE SENSITIVE AREAS

SCALE: 1" = 2000'

FIGURE IV-2

SITE NO.	DESCRIPTION/LOCATION
22	Residence, 2 story stone, Grove Road
23	Residence, 2 story brick, E. Joppa Road
24	Pine Valley Tennis Club, White Marsh Road
25	Residence, 1 story brick, Louisa Avenue
26	Sunrise Trailer Park, Belair Road Trailer on Def Road

c. Results of Microscale Analysis

The results of the calculations of CO concentrations at each of the sensitive receptor sites for the No-Build, the Selected Alternate for Maryland Route 43 and improvements proposed for U.S. Route 1 are shown on Tables IV-3 and IV-4. The values shown consist of predicted CO concentrations attributable to traffic on various roadway links plus projected background levels. The No-Build Alternate assumes that no improvements are made to U.S. Route 1 and there is no extension of Maryland Route 43. In addition, the concentrations shown for the Selected Alternate for Maryland Route 43 assumes a six (6) lane improvement to U.S. Route 1 which is a worst case alternate from an air quality viewpoint. A comparison of the values in Tables IV-3 and IV-4 with the S/NAAQS shows that no violations will occur for the No-Build or with either the Selected Build Alternate for Maryland Route 43 or U.S. Route 1 improvements in 1990 or 2010 for the one-hour or eight-hour concentrations of CO.

The projected CO concentrations vary depending on receptor locations as a function of the roadway locations and traffic patterns associated with each alternate. In most cases, the background concentrations are greater than the CO contributions from the roadway network associated with the

alternates. The maximum one-hour concentrations associated with the selected alternate is only 14% of the one hour S/NAAQS while the maximum eight-hour concentration is 32% of the eight-hour S/NAAQS. Most of the one-hour and eight-hour concentrations for each receptor are a lower percentage of the standards than the 14% and 32%.

TABLE IV-2
CO CONCENTRATIONS* AT EACH RECEPTOR SITE, PPM
1990

	No-BUILD		Alternate 4 Modified (Selected)	
	1 hr.	8 hr.	1 hr.	8 hr.
1	3.8	2.2	3.7	2.0
2	4.2	2.6	3.6	2.0
3	4.5	2.9	3.9	2.2
4	4.3	2.7	3.9	2.2
5	5.1	3.2	4.8	2.9
6	4.5	2.7	4.4	2.6
7	4.3	2.5	4.0	2.3
8	4.5	2.7	4.6	2.8
9	3.8	2.2	4.0	2.3
10	3.6	1.9	3.7	2.1
11	3.6	2.0	3.7	2.1
12	3.6	1.9	3.7	2.0
13	3.9	2.2	4.0	2.3

*Including Background Concentrations

The S/NAAQS for CO: 1 hour maximum = 35 PPM
8 hour maximum = 9 PPM

TABLE IV-2 (Cont'd.)
CO CONCENTRATIONS* AT EACH RECEPTOR SITE, PPM
1990

	NO-BUILD		Alternate 4 Modified (Selected)	
	1 hr.	8 hr.	1 hr.	8 hr.
14	3.8	1.9	3.8	2.1
15	3.3	1.7	3.7	1.9
16	3.3	1.7	4.2	2.3
17	3.7	2.0	4.1	2.2
18	3.7	1.9	4.1	2.2
19	3.5	1.9	4.2	2.3
20	3.7	2.0	3.9	2.3
21	3.7	1.9	3.9	2.1
22	4.9	2.9	4.2	2.3
23	3.8	2.0	4.1	2.3
24	3.3	1.7	3.9	2.1
25	3.9	2.1	4.3	2.4
26	3.7	2.0	3.8	2.0

*Including Background Concentration

The S/NAAQS for CO: 1 hour maximum = 35 PPM
8 hour maximum = 9 PPM

TABLE IV-3
CO CONCENTRATIONS* AT EACH RECEPTOR SITE, PPM
2010

	No-BUILD		Alternate 4 Modified (Selected)	
	1 hr.	8 hr.	1 hr.	8 hr.
1	3.3	1.9	3.0	1.7
2	3.6	2.1	3.0	1.7
3	3.9	2.4	3.3	1.9
4	3.7	2.3	3.3	1.9
5	4.0	2.6	4.4	2.8
6	3.6	2.2	3.7	2.2
7	3.4	2.1	3.4	1.9
8	3.7	2.4	3.9	2.4
9	3.3	1.9	3.4	2.1
10	3.0	1.7	3.0	1.7
11	3.0	1.7	3.0	1.7
12	2.9	1.4	2.9	1.6
13	3.1	1.6	3.7	2.1

*Including Background Concentrations

The S/NAAQS for CO: 1 hour maximum = 35 PPM
8 hour maximum = 9 PPM

TABLE IV-3 (Cont'd.)
CO CONCENTRATIONS* AT EACH RECEPTOR SITE, PPM
2010

	NO-BUILD		Alternate 4 Modified (Selected)	
	1 hr.	8 hr.	1 hr.	8 hr.
14	3.0	1.6	3.4	1.8
15	2.6	1.3	2.9	1.6
16	2.6	1.3	3.5	2.2
17	2.9	1.6	3.7	2.1
18	2.8	1.5	3.0	1.5
19	3.2	1.6	3.2	1.6
20	3.5	1.9	3.2	1.8
21	3.2	1.6	3.0	1.6
22	3.8	2.2	3.3	1.8
23	3.0	1.6	3.7	2.1
24	2.6	1.3	3.3	1.9
25	3.0	1.7	3.7	2.4
26	2.9	1.6	3.1	1.6

*Including Background Concentrations

The S/NAAQS for CO: 1 hour maximum = 35 PPM
8 hour maximum = 9 PPM

2. Construction Impacts

The construction phase of the proposed project has the potential of impacting the ambient air quality through such means as fugitive dust from grading operations and materials handling. The State Highway Administration has addressed this possibility by establishing Specifications for Materials, Highways, Bridges and Incidental Structures which specifies procedures to be followed by contractors involved in state work.

The Maryland Bureau of Air Quality Control was consulted to determine the adequacy of the Specifications in terms of satisfying the requirements of the Regulations Governing the Control of Air Pollution in the State of Maryland. The Maryland Bureau of Air Quality Control found that the specifications are consistent with the requirements of these regulations. Therefore, during the construction period, all appropriate measures will be taken to minimize the impact on the air quality of the area.

3. Conformity with Regional Air Quality Planning

The project is in an air quality nonattainment area which has transportation control measures in the State Implementation Plan (SIP). This project conforms with the SIP since it originates from a conforming transportation improvement program.

4. Agency Coordination

Copies of the Maryland Route 43 Air Quality Analysis were circulated to the U.S. Environmental Protection Agency and the Maryland Air Management Administration for review and comment. See comments section for letters dated 4/11/84 and 4/4/84 respectively.

F. Noise Impact Analysis

1. Noise Abatement Criteria

The Federal Highway Administration has established through the Federal Highway Program Manual (FHPM) 7.7.3, maximum noise levels for various land uses (See Appendix c). For most common land uses such as schools, residences, churches, libraries, hospitals, and parks, the exterior L_{10} design noise level is 70dBA. These are expressed in terms of an L_{10} noise level, which describes a noise level that is exceeded for 10% of a given time period.

2. Ambient Noise Level Measurements

Twenty-eight (28) noise sensitive areas were identified and analyzed in the study area. These are shown on Figure IV-2 in Section IV-E. Following is a brief description of these:

Noise Sensitive Area	Activity Category	Description
1	B	Fourteen (14) split-level single family residences located on Saxon Circle, with access to Honegyo Bouelvard.
2	B	Three (3) split-level single family frame residences on Shoreham Court, with access to Perry Hall Boulevard.
3	B	Silver Spring Road. One (1) one-story single family brick residence with direct access to Silver Spring Road.
4	B	Five (5) two-story, single family brick residences with direct access to Silver Spring Road.
5	B	Five (5) two and one-half story, single family frame residences with direct access to U.S. Route 1.

Noise Sensitive Area	Activity Category	Description
6A	B	St. Joseph's Fullerton Parish School. One (1) story stone school building with direct access to U.S. Route 1.
6B	B	St. Joseph's Fullerton Parish Church. Two (2) story, air conditioned, stone/stucco church building with direct access to U.S. Route 1.
7	B	One (1) two-story single family frame residence with direct access to U.S. Route 1.
8	B	Five (5) two-story single family stucco/frame residences with direct access to U.S. Route 1.
9	B	One (1) two-story, single family brick/frame residence on Lark Meadow Court, with access to Fitch Avenue.
10	B	One (1) two-story single family frame residence on Ridge Road.
11	B	One (1) one-story single family brick/stone residence on Bucks Schoolhouse Road.
12	B	One (1) two-story single family frame residence on Fitch Avenue.
13	B	One (1) two-story single family stucco residence with direct access to U.S. Route 1.
14	B	One (1) two-story single family brick residence on Rolling View Avenue.
15	B	Burnam Woods Apartments. Two three-story multifamily brick garden-style apartment buildings on Raylon Drive. These apartment units are air-conditioned.
16	B	One (1) one-story single family frame residence on Necker Road next to gun club.
17	B	One(1) two-story single family brick residence on Joppa Road.

Noise Sensitive Area	Activity Category	Description
18	B	Belmont Park. Receptor location is edge of right of way.
19	B	Five (5) two-story multi-family brick/frame townhouse buildings backing on proposed Walther Boulevard. Receptor site - Lerner Court. These buildings are air conditioned.
20A	B	One (1) three-story, multi-family brick/frame garden apartment building (air conditioned) on Thurmont Road.
20B	B	Three (3) two-story multi-family brick/frame townhouses on Santee Road with access to Kintore Drive. These buildings are air conditioned.
21	B	Apple Hill Apartments/Townhouses. One (1) two-story multi-family brick/frame apartment building on Ridgetown Road. This building is air conditioned.
22	B	One (1) two-story single family stone residence on Grove Road with access to Putty Hill Avenue.
23	B	One (1) two-story single family brick residence on Joppa Road.
24	B	Pine Valley Tennis Club. Outdoor recreational area on White Marsh Road.
25	B	One (1) one-story single family brick residence located on Louisa Avenue with access to U.S. Route 1.
26	B	Sunrise Trailer Park on Belair Road. One (1) mobile trailor home on Def Road.

A field measurement program to establish ambient noise levels was conducted utilizing the latest method of environmental noise analysis. In an acoustical analysis, measurement of ambient noise levels is intended to establish the

basis for impact analysis. The ambient noise levels as recorded represent a generalized view of present noise levels. Variations with time of total traffic volume, truck traffic volume, speeds, etc., may cause fluctuations in ambient noise levels of several decibels. However, for the purposes of impact assessment, these fluctuations are not sufficient to significantly affect the assessment.

The results of the ambient monitoring program are shown in Table IV-4.

3. Predicted Noise Levels

a. Prediction Methodology

The method used to predict the future noise levels from the proposed extension of Maryland Route 43, was developed by the Federal Highway Administration of the U.S. Department of Transportation. The FHWA Highway Traffic Noise Prediction Model (FHWA Model) incorporates data pertaining to normal traffic volume increases over time, utilizes an experimentally and statistically determined reference sound level for three classes of vehicles (autos, medium duty trucks, and heavy duty trucks) and applies a series of adjustments to each reference level to arrive at the predicted sound level. The adjustments include: 1) traffic flow corrections, taking into account number of vehicles, average vehicles speed, and specifies a time period of consideration; 2) distance adjustment comparing a reference distance and actual distance between receiver and roadway, including roadway width and number of traffic lanes; and

3) adjustment for various types of physical barriers that would reduce noise transmission from source (roadway) to receiver.

The prediction calculations were performed utilizing a computer program adaptation of the FHWA MODEL, STAMINA 2.0/ Optima.

b. Summary of Traffic Parameters

Traffic information for this analysis was prepared by the Maryland State Highway Administration's Bureau of Traffic Engineering and Bureau of Highway Statistics for the Design Year (2010).

The Design Hour Volume (DHV's) were used in this study which produced the highest noise levels, representing the worst-case condition.

c. Prediction Results

Noise levels projected for the design year (2010) for the "Build" and "No-Build" alternatives are shown in Table IV-5.

4. Noise Impact Assessment

a. Impact Analysis and Feasibility of Noise Control

The determination of environmental noise impact is based on the relationship between the predicted noise levels, the established noise abatement criteria, and the ambient noise levels in the project area. The applicable standard is the Federal Highway Administration's Noise Abatement Criteria/-Activity Relationship (see Appendix C) published in FHPM 7-7-3.

When design year L_{10} noise levels are projected to

PROJECT NOISE LEVELS

TABLE VI-4

MARYLAND ROUTE 43 NO-BUILD ALTERNATE

NSA	DESCRIPTION	AMBIENT L_{10}	DESIGN YEAR | 2010 | L_{10}
			NO-BUILD
1	RESIDENTIAL	55	62
2	RESIDENTIAL	55	63
3	RESIDENTIAL	64	66
4	RESIDENTIAL	64	68
5	RESIDENTIAL	67	68
6A	CHURCH/SCHOOL	62	64
6B	CHURCH	59	59
7	RESIDENTIAL	66	67
8	RESIDENTIAL	66	69
9	RESIDENTIAL	48	63
10	RESIDENTIAL	58	61
11	RESIDENTIAL	50	61
12	RESIDENTIAL	64	61
13	RESIDENTIAL	59	63
14	RESIDENTIAL	61	67
17	RESIDENTIAL	62	66
18	PARK	46	38
21	RESIDENTIAL	40	66
22	RESIDENTIAL	59	69
23	RESIDENTIAL	62	65
25	RESIDENTIAL	49	57
26	RESIDENTIAL	49	54

PROJECT NOISE LEVELS

TABLE VI-4

NO-BUILD ALTERNATE (Cont'd)

NSA	DESCRIPTION	AMBIENT L_{10}	DESIGN YEAR (2010) L_{10}
			NO-BUILD ALTERNATE
19	RESIDENTIAL	46	66
20	RESIDENTIAL	40	56

PROJECT NOISE LEVELS

TABLE VI-4

MARYLAND ROUTE 43 - Alternate 4 Modified

NSA	DESCRIPTION	AMBIENT L_{10}	DESIGN YEAR (2010) L_{10}
1	RESIDENTIAL	55	60
2	RESIDENTIAL	55	60
3	RESIDENTIAL	64	66
4	RESIDENTIAL	64	66
5	RESIDENTIAL	67	70
6A	CHURCH/SCHOOL	62	64
6B	CHURCH	59	60
7	RESIDENTIAL	66	69
8	RESIDENTIAL	66	71
9	RESIDENTIAL	48	64
10	RESIDENTIAL	58	63
11	RESIDENTIAL	50	62
12	RESIDENTIAL	64	63
13	RESIDENTIAL	59	63
14	RESIDENTIAL	61	70
15	RESIDENTIAL	48	54
16	RESIDENTIAL	41	61
18	PARK	46	56
19	RESIDENTIAL	46	66
20A	RESIDENTIAL	40	58
20B	RESIDENTIAL	40	57

PROJECT NOISE LEVELS

TABLE IV-4

Maryland Route 43 - Alternate 4 Modified (Cont'd)

NSA	DESCRIPTION	AMBIENT L_{10}	DESIGN YEAR [2010] L_{10}
21	RESIDENTIAL	40	65
22	RESIDENTIAL	59	69
23	RESIDENTIAL	62	67
24	RESIDENTIAL	52	54
25	RESIDENTIAL	49	61
26	RESIDENTIAL	49	62

PROJECT NOISE LEVELS

TABLE VI-4

U.S. ROUTE 1 - IMPROVEMENTS

NSA	DESCRIPTION	AMBIENT L_{10}	DESIGN YEAR (2010) L_{10}
5	RESIDENTIAL	67	70
6A	CHURCH/SCHOOL	62	64
6B	CHURCH	59	60
7	RESIDENTIAL	66	68
8	RESIDENTIAL	66 -63.	71 = 68 Leq = Δ5
13	RESIDENTIAL	59	63
25	RESIDENTIAL	49	58
26	RESIDENTIAL	49	54

exceed the abatement criteria (See Table. IV-5) or increase ambient conditions by more than 10dBA, noise abatement measures (in general, noise barriers) are considered to minimize impact. Consideration is based on the size of the impacted area (number of structures, spacial distribution of structures, etc.), the predominant activities carried on within the area, the visual impact of the control measure, practicality of construction, and economic feasibility.

Economic assessment is based on the following assumptions. An effective barrier should, in general, extend in both directions to four (4) times the distance between receiver and roadway (source). In addition, an effective barrier should provide a 10dBA reduction in the noise level, as a preliminary design goal. For the purpose of comparison, a total cost of $25 per square foot is assumed to estimate total barrier cost.

No-Build Alternate

A total of twenty-four (24) noise sensitive areas are associated with this alternate. L10 noise levels would increase 1 - 26 dBA over present levels. None of these noise sensitive areas will exceed the noise abatement criteria of 70dBA, however, NSA's 9, 11, 18, 19, 20A, 21, and 22 will have projected increases over ambient levels by 10 dBA or more. NSA 12 will have a projected 2010 noise level lower than the existing ambient level. This difference is due to the fluctuations in traffic characteristics (Truck %, Volumes, Speed) during the monitoring period. Noise mitigation measures are not recommended for this alternate.

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Alternate 4 Modified (Selected Alternate)

A total of twenty-seven (27) noise sensitive areas are associated with this alternate. L10 noise levels would increase 1-25dBA over present levels. NSA 12 will have a projected 2010 noise level lower than the existing ambient noise level. This difference is due to the fluctuations in traffic characteristics (Truck %, Volumes, Speeds) that can occur during the monitoring period. Noise levels projected for the design year (2010) for the Selected Build Alternates and for the No-Build Alternate are shown in Table VI-4.

NSA 8 will be the only location where the noise abatement criteria would be exceeded. Noise Sensitive Areas 9, 11, 16, 18, 19, 20, 20A & B, 21, 22, 25 and 26 have projected 2010 noise levels that will increase 10dBA or more over ambient levels. The following is a discussion regarding the feasibility of noise abatement for these twelve (12) sites:

NSA 8

NSA 8 will have a projected 2010 noise level 5dBA over the ambient level and will exceed the noise abatement criteria by 1dBA. A barrier at this location would have to be segmented for driveway access to U.S. Route 1 which would not be physically effective. A barrier length of ±700' at a height of 10' would only reduce projected noise levels by 0-1 dBA. With a cost of $175,000 ($35,000/residence), this barrier would not be cost-effective or physically effective.

700 x 20' x 27 = $378K
length height $/sf
÷ 5 Res = $75.6K/Res

NSA 9

NSA 9 will have projected 2010 noise levels 16dBA over existing ambient levels. A barrier length of approximately

880' at a height of ±12' would reduce the projected noise levels by 9-10dBA. This barrier would cost $264,000 ($44,000/residence) and would provide attenuation to a maximum of six (6) residences on Lark Meadow Court, which would not be cost-effective.

NSA 11

This location will have a projected 2010 increase of 12 dBA over existing ambient levels. A barrier at this site would have to be segmented for driveway access which would not provide sufficient attenuation to be physically effective. A barrier 780' in length by ±12' in height at a cost of $234,000 would only reduce the projected noise levels 2-3dBA at two (2) residences.

NSA 16

This NSA will have projected 2010 increases of 20dBA over ambient levels for Alternate 4 Modified. A barrier 960' in length by ±12' in height at a cost of $288,000 would only reduce the projected noise level 5-6dBA at this residence. This mitigation would not be cost effective.

NSA 18

NSA 18, Belmont Park, will be affected by Walther Boulevard under this alternate and will have a projected 2010 increase of 10 dBA over ambient levels. Currently, there are no recreational facilties or associated activities (playground, ballfields, tennis courts, etc.) in this park. Recreational activities are being planned although the locations of the activities have not been determined. Therefore, any mitigation of noise impacts is not recommended at this time. It should be noted that ambient noise levels for year 2010 would be greater

for the no-build alternate than for the recommended alternate.

NSA 19

NSA 19 will have a projected 2010 increase of 20dBA over existing ambient levels although there is no difference between build and no-build levels. A barrier at this location would have to be segmented for the at-grade intersection of proposed Walther Boulevard and Dunfield Road. A barrier 1100' in length by ±12' in height at a cost of $330,000 would only reduce the projected noise levels 3-4dBA. This would not be an effective abatement measure at this site.

NSA 20A and 20B

Noise sensitive areas 20A and 20B will have projected 2010 increases of 18 and 19 dBA, respectively, over existing ambient levels. NSA's 20A and 20B are located ±320' from proposed Alternate 4 modified which is too far for any type of barrier to be physically effective. A barrier 3500' in length by ±12' in height at a cost of $1,050,000 would possibly reduce the projected noise levels by 1dBA. This would not be cost-effective.

NSA 21

This NSA will have a projected 2010 increase of 25dBA over existing ambient levels. A barrier 1150' in length by 12' in height at a cost of $345,000 ($38,333/unit) would reduce projected noise levels 9-10dBA. However, this barrier would only provide attenuation to 8-9 apartment units at the first floor level, which would not be cost effective.

NSA 22

This noise sensitive area will have a projected

2010 increase of 10dBA over the present ambient levels. NSA 22 is located ±240' from I-695 which is too far for a barrier to be physically effective. In addition, I-695 would be the major contributor to the 2010 noise level at this location. A barrier 900' in length by 14' in height at a cost of $315,000 would only reduce the projected noise level by 1dBA.

NSA 25

Noise Sensitive Area 25 will have a projected 2010 increase of 12dBA over the existing ambient level. A barrier 1200' in length by ±12' in height at a cost of $360,000 ($180,000/residence) would reduce the projected noise levels 9-10dBA. With only two residences at this location, this mitigation would not be cost effective.

NSA 26

This NSA will have a projected 2010 increase of 13dBA over the existing ambient level. A barrier 1700' in length by 15' in height at a cost of $595,000 ($99,166/residence) would reduce the projected noise levels by 9-10dBA. This would not be a cost-effective mitigation measure for protection to a maximum of 5-6 mobile trailers.

A compartive analysis to determine the effects of truck traffic west of U.S. Route 1 was performed at the request of Baltimore County who will assume responsibility for the section upon completion.

The following chart is a comparison of 2010 L_{10} noise levels with or without trucks at three (3) noise sensitive areas for Alternate 4 Modified. These NSA's are all located west of U.S. Route 1.

ALTERNATE 4 MODIFIED

NSA	2010 L_{10} dBA	
	TRUCKS	NO TRUCKS
20A	58 dBA	54 dBA
20B	57 dBA	53 dBA
21	65 dBA	61 dBA

These noise levels indicate that the restriction of trucks will reduce the projected noise levels by ± 4 dBA at these locations.

U.S. Route 1 Improvements

A total of eight (8) noise sensitive areas are associated with the 6-lane alternate. This alternate would represent worst case noise conditions for the U.S. Route 1 improvement alternates. L_{10} noise levels would increase 1-9 dBA over present levels. Noise Sensitive Area 8 will be the only location where the noise abatement criteria would be exceeded. The feasibility of abatement discussion for NSA 8 is described under Alternate 4 Modified.

Partial mitigation through the use of landscaping and plantings and privacy fencing is feasible for some sites and will be studied in further detail during the final design phase of the project. Meetings will be held with affected property owners to discuss the type of partial mitigation to be used.

b. Construction Impacts

As with any major construction project, areas around the construction site are likely to experience varied periods and degrees of noise impact. This type of project would probably employ the following pieces of equipment which would likely be sources of construction noise:

Bulldozers and Earth Movers

Graders

Front End Loaders

Dump and other Diesel Trucks

Compressors

Generally, construction activity would occur during normal working hours on weekdays. Therefore, noise intrusion from construction activities probably would not occur during critical sleep or outdoor recreation periods.

G. Impact on Historic Sites

There are 17 sites in the study area considered by the State Historic Preservation Officer to be of Maryland Historical Trust Inventory (MHTI) level of significance.

The Waldman House (BA 2143), described in the Draft Environmental Impact Statement was the only site in the project area considered by the State Historic Preservation Officer to be eligible for the National Register.

Demolition of this house by a private developer was completed in December, 1984. The avoidance alternate developed for this site which was presented in the Draft Environmental Impact Statement would no longer be required and would not be implemented in order to reduce right-of-way requirements for St. Joseph's Church.

H. Relationships Between Short-Term Effects and Long-Term Productivity and Enhancement

The Selected Alternate would allow traffic to move efficiently through the study area. The proposed improvements should ease traffic congestion and allow increased speeds,

reducing the amount of air pollutants contributed per vehicle.

The proposed improvements should make the project area more attractive to businesses thereby increasing employment opportunities in White Marsh and surrounding areas.

Long-term environmental effects include the elimination of productive agricultural lands, woodlands and the aquisition of floodplain acreage.

Short-Term Effects

Construction impacts would have a short-term adverse effect on the project area. Erosion, siltation and stream turbidity would result in temporary impacts to stream biota.

I. Irreversible and Irretrievable Commitments of Resources

The principle irreversible and, for all practical purposes, irretrievable commitment of resources would be the woodlands and agricultural land allocated for the highway right-of-way. Construction of the proposed project would also remove floodplain acreage and wildlife habitat. The land for the project can be considered as permanently committed to a transportation corridor. In addition, materials and suitable fill material for construction would be irretrievably committed.

V
DISTRIBUTION LIST

DISTRIBUTION LIST

Contract No. B 818-151
Maryland Route 43 Extended (White Marsh Boulevard)
from west of U.S. Route 1 to I-95
and
U.S. Route 1 (Belair Road) Improvements
from I-695 to North of Silver Spring Road
in Baltimore County, Maryland

DRAFT ENVIRONMENTAL IMPACT STATEMENT

FEDERAL AGENCIES

State Conservationist
Soil Conservation Service
Room 522
4321 Hartwick Road
College Park, Maryland 20740

* Mr. Bruce Blanchard, Director
Office of Environmental Project Review
U.S. Department of the Interior
18th and C Streets, N. W.
Washington, D. C. 20242

* Environmental Protection Agency
Environmental Impact Statement
Coordinator, ATTN: 3IR62
Curtis Building
Sixth and Walnut Streets
Philadelphia, PA 19106

* Regional Director
National Marine Fisheries Service
Federal Building
14 Elm Street
Gloucester, Massachusetts 01930

* Mr. Larry Levine
Environmental Officer
Department of Housing and Urban Development
Curtis Building
Sixth and Walnut Streets
Philadelphia, PA 19106

* Office of the Secretary
Department of Agriculture
Washington, D. C. 20250

Commander
U.S. Coast Guard, 5th District
431 Crawford Street
Portsmouth, Virginia 23703

FEDERAL AGENCIES (Cont'd.)

Commander
Corps of Engineers
Baltimore District
Box 1715
Baltimore, Maryland 21201
ATTN: NABOP - F

Division of NEPA Affairs
Department of Energy
Room 4G 064
1000 Independence Avenue, S. W.
Washington, D. C. 20230

Mr. Peter N. Stowell
Region III, Director
UMTA
Suite 1010
434 Walnut Street
Philadelphia, PA 19106

Associate Director for Planning
Management & Demonstration
Urban Mass Transit Administration
400 7th Street, S. W.
Washington, D. C. 20590

Office of Economic Opportunity
Director
1200-19th Street, N. W.
Washington, D. C. 20506

* Mr. Robert Adamcik, Acting
Regional Director
Federal Emergency Management Agency
Curtis Building
6th and Walnut Streets
Philadelphia, PA 19106

ELECTED OFFICIALS AND LOCAL GOVERNMENT AGENCIES

The Honorable Clarence D. Long
United States Congress
House of Representatives
200 Post Office Building
Chesapeake and Washington Avenues
Towson, Maryland 21204

Senator Thomas L. Bromwell
James Senate Office Building
110 College Avenue
Annapolis, Maryland 21401-1991

ELECTED OFFICIALS AND LOCAL GOVERNMENT AGENCIES (cont'd)

Delegate Dale Anderson
T. H. Lowe House Office Building
6 Bladen Boulevard
Annapolis, Maryland 21401-1991

Delegate Joseph Bartenfelder
T.H. Lowe House Office Building
6 Bladen Boulevard
Annapolis, Maryland 21401-1991

Delegate William J. Burgess
T. H. Lowe House Office Building
6 Bladen Boulevard
Annapolis, Maryland 21401-1991

The Honorable Donald P. Hutchinson
County Executive
100 Court House
Towson, Maryland 21204

Councilman Normal W. Lauenstein
Germania Federal Building
809 Eastern Boulevard
Essex, Maryland 21221

Councilman Eugene W. Gallager
Old Court House
2nd Floor
Towson, Maryland 21204

Mr. Harry J. Pistel, Director
Department of Public Works
County Office Building
Towson, Maryland 21204

Mr. Stephen E. Collins, Director
Department of Traffic Engineering
County Courts Building
Towson, Maryland 21204

Mr. Norman E. Gerber, Director
Office of Planning and Zoning
County Office Building
Towson, Maryland 21204

Mr. Malcolm S. Aldrich
Director of Recreation and Parks
301 Washington Avenue
Towson, Maryland 21204

ELECTED OFFICIALS AND LOCAL GOVERNMENT AGENCIES (cont'd)

Mr. Paul Reincke, Chief
Baltimore County Fire Department
800 N. York Road
Towson, Maryland 21204

Cornelius J. Behan, Chief
Baltimore County Police Department
400 Kenilworth Avenue
Towson, Maryland 21204

Mr. Paul S. Jarosinski
Vice President
Chairman, Transportation Committee
North East Coordinating Council
P.O. Box 44
Perry Hall, Maryland 21128

MARYLAND DEPARTMENT OF TRANSPORTATION

Director
Public Affairs
Maryland Department of Transportation
P.O. Box 8755, BWI Airport
Baltimore, Maryland 21240

Mr. Clyde E. Pyers, Director
Division of Systems Planning and Development
Maryland Department of Transportation
P.O. Box 8755
Baltimore, Maryland 21240

Mr. Larry Saben
Washington Regional Office/DOT
8720 Georgia Avenue, Suite 904
Silver Spring, Maryland 20910

Maryland State Law Library
Upper Level Court of Appeal Building
361 Rowe Boulevard
Annapolis, Maryland 21401

STATE CLEARINGHOUSE

* Local Governments
* Department of State Planning
* Department of Natural Resources
Department of Budget and Fiscal Planning
Department of General Services
Department of Economic and Community Development
Department of Education
* Department of Health and Mental Hygiene

ELECTED OFFICIALS AND LOCAL GOVERNMENT AGENCIES (cont'd)

Interagency Committee for School Construction
Maryland Environmental Trust
* Maryland Historical Trust
Maryland Geological Survey
Department of Public Safety and Correctional Services

* Comments received from the agencies.

VI
COMMENTS AND COORDINATION

VII. COMMENTS AND COORDINATION

A. Coordination

In addition to correspondence with appropriate resource agencies (Section VI), this project has been coordinated with representatives of the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, the Environmental Protection Agency and the Maryland Department of Natural Resources - Water Resources Administration (DNR-WRA) at State Highway Administration Quarterly Interagency Review meetings on May 12, 1982 and April 28, 1983. Further coordination has been accomplished through meetings with representatives of DNR-WRA in January, 1982 and DNR-WRA and the U.S. Army Corps of Engineers on October, 1983. A field review was held with the Department of Natural Resources, and U.S. Fish and Wildlife Services on September 6, 1984 to obtain further input regarding stream relocation and wildlife impacts.

B. Comments

1. General

A Combined Location/Design Hearing for this project was held on May 24, 1984. Mr. William Ensor, Acting District Engineer, State Highway Administration, presided. Representatives of the State Highway Administration's Bureau of Project Planning described the project process and the alternatives under consideration and provided an environmental overview of the study area. Representatives of the State Highway Administration explained the right-of-way acquisition process and the relocation assistance program. Persons attending the Public Hearing were provided a copy of the "Combined Location/Design Hearing" brochure, which summarizes features of the alternates. The Draft Environmental Impact Statement and a public information display were available

for review prior to and at the hearing.

Official transcripts were prepared of the Location/Design Public Hearing. The hearing record contains the remarks of 8 speakers, along with several written statements. Copies of the transcripts are available for review at the Maryland State Highway Administration.

Richard Hibert - Vice President, Ambermill Community Association

Comment: The Ambermill Community Association endorsed Alternate 3B because it would provide relief to Silver Spring Road. The Association opposed any form of Alternate 4 because it would not provide east-west movements in the study area.

Alternate 4 Modified is the most expensive and environmentally damaging and would increase traffic on Belair Road.

Response: The primary purpose of Maryland Route 43 Extended is to provide adequate access to an area designated by Baltimore County as a high growth area. Another objective is to provide access from the growth areas to I-695 without diverting through traffic from I-695 and I-95. The State Highway Administration believes Alternate 4 Modified best meets these objectives. The Selected Alternate is the most expensive and it does impact more floodplain acreage and has more stream relocations than the other alternates. It is the only alternate that adequately meets the stated purpose of the project. Through coordination with the appropriate environmental review and regulatory agencies it is believed the floodplain impacts are not significant and the stream involvements can be mitigated. It is true that theoretically the Level of Service of the nearby U.S. Route 1 and Silver Spring Road intersection would be lower under Alternate 4 Modified than under Alternate 3B. However, it should be noted that under Alternate 3B, the U.S. Route 1-Maryland Route 43 intersection would operate at Level of Service "F", with a volume capacity ratio of 1.16. This extremely poor level of service, coupled with the nearby U.S. Route 1 and Silver Spring Road intersection operating at Level of Service "E" (v/c ratio 0.99), would tend to create congestion throughout

this area of U.S. Route 1, with both intersections operating virtually at capacity.

Lee Hinmom - Representing the Wolsingham Association

Comment: The Association is opposed to Alternate 4 Modified and supports Alternate 3B and the 7 lane alternate for Belair Road. The Asssociation is concerned about floodplain impacts, flooding and the water table level. Alternate 4 Modified is the only alternate that exceeds noise criteria. They believe that motorists will use the selected alternate as a short cut between I-95 and I-695.

Response: The analysis' completed for the Selected Alternate indicate there will be no significant impacts to the floodplain or increased flooding. See page IV-17 of this document for additional information. Stormwater management will be effectively managed under regulations developed by the Maryland Department of Natural Resources. See page IV-12 for additional information. The only area where White Marsh Run will be relocated under this selected alternate is in the vicinity of proposed Walther Boulevard. Since the existing gradient of White Marsh Run will be maintained during its relocation, the horizontal shift required for the stream realignment will not affect the water table. See page II-18 for rationale why the Selected Alternate would not be attractive as a short cut between I-695 and I-95.

Al Redmer - President, Perry Hall Improvement Association

Comment: He stated that a local road is needed to ease congestion and not a regional highway. He does not believe trucks will be prohibited on Maryland Route 43 west of Belair Road and believes the selected alternate will be a short cut between U.S. Route 40

and I-695.

Response: The objective of the selected alternate is not to provide a regional highway, but to provide better local access to a designated growth area. In addition, Baltimore County is proposing new roads designed to provide local access. See figure II-1. The section of Maryland Route 43 west of Belair Road will be turned over to Baltimore County after it is constructed. The County is committed to prohibiting truck traffic. For a discussion of why the Selected Alternate will not be an attractive short-cut see page II-18.

Harold F. Savage - President, North East Coordinating Committee

Comment: The community of Belmont was never contacted.

Response: The North East Coordinating Council (NECC) is an umbrella organization representing community associations within the project area, including Belmont. In addition to the Alternates Public Meeting in November of 1983, representatives of the Maryland Route 43 Planning Team met community groups as follows:

- North East Coordinating Council, February 14, 1983 and September 19, 1983 at the Perry Hall Presbyterian Church

- South Belmont Civic Association, representative of planning team attended with elected officials, February 29, 1984 at Perry Hall Senior High School

- Wolsingham Condominium Association, a member organization of NECC located in Belmont, March 20, 1984 at the Perry Hall Middle School.

Barry Chambers - Consultant for North East Coordinating Committee

Comment: Mr. Chambers expressed concern about impacts to the 100 year floodplain and stormwater management.

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Response: The potential impacts to the 100 year floodplain have been analyzed in accordance with federal procedures and regulations. It has been determined that the impacts will not result in significant upstream water surface elevations or storage capacity. For additional information see page IV-17. Stormwater management has also been considered during the study. See page IV-12 for the techniques to be used to manage stormwater.

George E. Frangos -Consultant for North East Coordinating Committee

Comment: Mr. Frangos was concerned with the traffic service provided by Alternate 3B and 4 Modified. Alternate 3-B will not increase traffic volumes on Joppa Road. Baltimore County Project No. 077 proposes to reconstruct Joppa Road between Harford Road and U.S. Route 1 by Fiscal Year 1990 and suggests the potential for four lanes. The Maryland Route 43 project, however, assumes two basic lanes on Joppa Road in the year 2010. In addition, the study shows an Average Daily Traffic of 35,000 and a one-way Design Hour Volume of 2,100 on Joppa Road, even though the Highway Capacity Manual states that the highest reported ADT on a two-lane, two-way roadway in the United States has never exceeded 25,000 and that the theoretical capacity of a 12 foot lane is 2,000 VPH.

Response: The two lanes on Joppa Road do act as a capacity restraint on that facility. Under all of our alternative networks, Joppa Road was assumed to be operating at its capacity. At present, Baltimore County has no plans to increase the number of lanes on Joppa Road. Project No. 077 would provide some safety improvements and some intersection capacity improvements, but would not provide for additional lanes.

The Highway Capacity Manual printed in 1965, does state

that a two-way roadway capacity is 25,000 vehicles per day. However, due to the large increases in development in urban areas over the last 20 years, these values have been changed. Today in Maryland, we have two-lane roads which carry in excess of 25,000 vehicles per day. As we experience additional traffic and development growth over the next 25 years, we anticipate the peak durations to begin to extend from one hour to two or more hours. Our highways will also begin to carry a larger percent of traffic in the off peak hours over the next 25 years (as did occur over the last 25 years).

The theoretical capacity of a 12 foot lane as 2,000 vehicles per hour has also been shown to be exceeded on a number of occasions. Under today's conditions, there are reported several roads with 12 foot lanes having hourly capacity of over 2,100 vehicles.

Baltimore County has designated the Perry Hall/White Marsh area as a high growth area over the next 20 years. Without additional roadway capacity, the traffic volumes generated by this planned growth would cause a breakdown in the area's transportation system. The primary purpose of the Maryland Route 43 build alternate is to provide access to this growth area. The planning studies indicate that Maryland Route 43, constructed on the Alternate 4 Modified alignment would best fulfill that purpose by providing a more direct connection with both U.S. Route 1 and I-695.

Paul F. Jarosinski - Vice President, Chairman, Transportation Committee North East Coordinating Committee

Comment: Supports Alternate 3B and states that the Selected

Alternate will only serve Whitemarsh Mall and outside investors. States that the Highway Administration has manipulated the environmental document to favor the Selected Alternate. States the Selected Alternate will increase traffic on Belair Road north of Maryland Route 43 and is environmentally damanging. Alternate 3B would provide the most relief to Silver Spring Road.

Response: The primary purpose of Maryland Route 43 project is to provide access to an area designated as a growth area by Baltimore County. For additional information see pages I-1 and IV-5 of this document. The Highway Administration has not attempted to bias the environmental document. The potential impacts of all the alternates were presented in an objective manner. It is correct that the Selected Alternate will have environmental impacts not associated with the other alternates studied. It also avoids impacts incurred by some of the other alternates. Through coordination with the appropriate environmental agencies it has been determined that any potential adverse impacts associated with the Selected Alternate can be mitigated and minimized to an acceptable level.

The planning studies indicate that the Selected Alternate best fulfills the objective of providing access to a high growth area. All of the build alternates would provide some measure of relief to Silver Spring Road. It is the Study Team's conclusion that Alternate 4 Modified, in conjunction with the improvement of U.S. Route 1, would provide the most traffic relief for the entire roadway network in this area.

Robert M. Atkinson - Chairman, Planning and Zoning Committee - Hallfield - Silvergate Improvement and Civic Association

Comment: Supports Alternate 3B and is concerned about traffic on Silver Spring Road.

Response: Alternate 4 Modified was selected because the Highway Administration feels it best satisfies the objective of the study. The Highway Administration also believes that in conjunction with Belair Road improvements the selected alternate would provide the best traffic relief for the entire area.

Thomas Sears - Back River Neck Peninsula Community Association

Comment: Supports 3B and would spend money on fixing the Beltway and Belair Road.

Response: Alternate 4 Modified was selected because it best meets the objectives of this study. The Beltway is being resurfaced under a separate project.

William Storke -Vice President- Seven Courts Community Association

Comments: Supports Alternate 4 Modified.

Response: Alternate 4 Modified has been selected.

Don Raynor - Board of Directors of the Cub Hill Civic Organization

Comment: Against Alternate 3B.

Response: Alternate 4 Modified has been selected.

Calvin Glover, Jr.

Comment: Not satisfied with any of the alternates. We should come up with a comprehensive plan.

Response: The purpose of this study was to provide access to a designated growth area. The Selected Alternate meets the objective. This project is only 1 of a series of improvements planned by the State and County to improve the road system of the area.

Robert S. Fletcher - Belmont South Homeowners Association

Comment: Supports Alternate 3B for environmental reasons. Concerned about changes in water table, erosion and sedimentation, and flooding.

Response: See the response to Mr. Lee Hinmon on page VI-4 concerning floodplain impacts and the water table. Strict erosion and sediment control procedures will be imposed during the construction of the project. The specific procedures used will be reviewed and approved by the Maryland Department of Natural Resources and other appropriate agencies. For additional information see page IV-13.

William A. Irgens - Transportation Coordinator, Baltimore County Office of Planning and Zoning.

Comment: Speaking on behalf of County Executive. Supported Alternate 4 Modified and the 6 lane alternate for Belair Road.

Response: Alternate 4 Modified is the Selected Alternate for Maryland Route 43. An alternate accommodating either the six lane or seven lane alternate typical sections will be decided upon during the design phase after additional coordination with public officials, elected representatives and concerned businessmen.

Earl Skidmore - President, Belmont South Community Association

Comment: Supports Alternate 3B.

Response: Alternate 4 Modified was selected because it best meets the objectives of the study to provide access to a designated growth area.

Donna M. Felling-Board of Directors North East Coordinating Council

Comment: Favors Alternate 3B. Concerned about air quality, noise quality and impacts to the natural environment.

Response: Alternate 4 Modified was selected because it best satisfies the objectives of the study to provide access to designated growth area. The potential environmental impacts and mitigation measures are discussed beginning on page IV-1.

Lester Pague - Resident of Belmont

Comment: Concerned about noise levels, as his home is close to the selected alternate and believes the selected alternate will be used as a short cut.

Response: The noise levels in the vicinity of Mr. Pague's home will increase from todays levels. The area he is concerned about is shown as area 20 on figure IV-2 and is discussed on page IV-45. It has been determined that a noise barrier would not be cost effective in this area. However, plantings and possibly privacy fencing will be used as partial mitigation. Baltimore County will prohibit heavy trucks from using this portion of Maryland Route 43. This will help to reduce the projected noise levels. The selected alternate will provide access to a designated growth area which includes Whitemarsh Mall, however, the Highway Administration does not believe it will be used as a short cut. See page II-18 for the reasoning why the selected alternate would not be used as a short cut.

Trudy Sutphin - Belmont

Comment: Against the project and is concerned about environmental impacts.

Response: The project is needed to provide access to an area designated as a growth area by Baltimore County. The potential environmental impacts and mitigation measures are discussed beginning on page IV-1.

Helen Delich Bently

Comment: Requested to Highway Administration to listen to the citizens.

Response: All comments from citizens, elected officials, county agencies and the various enviromental review and regulatory agencies were considered before a decision was made.

Al Thompson - Belmont

Comment: Wanted the elected officials to speak. Stated that the area around Whitemarsh run is a planned park. He wanted certain guarantees before Maryland Route 43 is constructed including:

- 40 mph speed limit
- preconstruction planting between Belmont and highway
- fencing
- trucks be prohibited on Md. Rt. 43 west of Belair Rd.

He also wants noise abatement.

Response: The Highway Administration has maintained close coordination with Baltimore County throughout the study. No land has been acquired for White Marsh Town Park. Baltimore County has assured us that no land purchased for the park would be within the alignment of the Selected Alternate Modified. The section of Maryland Route 43 west of Belair Road will be designed for 50 mph and will very likely be posted for 40 mph. Where possible preconstruction planting will be completed in the area between Belmont and Maryland Route 43. Fencing will be provided along this section of Maryland Route 43. Baltimore County has agreed to assume responsibility for this section of Maryland Route 43 and trucks will be prohibited. Noise abatement measures are discussed beginning on page IV-43. It has been determined that noise walls would not be cost effective anywhere along the project. However, landscaping, planting and privacy fencing will be incorporated into

the final design of the project as partial mitigation measures.

Calvin Glover, Sr.

Comment: Wants trucks banned from all of Maryland Route 43 and believes the selected alternate will be used as a short cut.

Response: Trucks will be banned west of Belair Road where Baltimore County will have jurisdiction over the roadway. Maryland Route 43 east of Belair Road will be under jurisdiction of the State Highway Administration. Trucks cannot be prohibited from using state roadways. The Highway Administration does not believe the selected alternate will be used as a short cut. See page II-18 for the reasoning.

Catherine Martin

Comment: Does not endorse any of the alternates. Concerned about traffic through the Glenside community. She is concerned about the environment.

Response: The traffic going through the Glenside community is trying to avoid the section of Belair Road from the beltway area in the vicinity of Putty Hill Road. The Selected Alternate will provide another route to Belair Road north of Putty Hill Road and should help to reduce traffic traversing the Glenside community. The environmental impacts of the Selected Alternate are described beginning on page IV-1. It is believed that all impacts can be adequately mitigated, where required.

Edwin T. Reback

Comment: Stated that plans for Maryland Route 43 have been on file for 25 years. Pollution from Belmont development is causing severe pollution to Whitemarsh Run. Suggested that the citizens develop plans for the required improvement in the local road network.

Response: None required.

Kevin L. Quelet

Comment: Supports Alternate 3B.

Response: Alternate 4 Modified was selected because it best meets the objective of the study to provide access to an area planned for development.

Lawrence Hooper

Comment: Told those in attendance that they should recall those politicians who voted for the project.

Response: None required.

Earl Skidmore - President - Belmont South Community

Comment: The community associations in attendance support Alternate 3B and they should continue to fight.

Response: None required.

John Schiavone -President-South Perry Hall Improvement Association

Comment: Expressing personal opinion. He suggested that another look be taken at the problem and the possibility the County and State could cooperate to expedite Honeygo Boulevard.

Response: The State Highway Administration has completed extensive studies of the transportation problems in the area. As a result of those studies it has been determined that Alternate 4 Modified is the best solution. Honeygo Boulevard is a County roadway, however, the State Highway Administration is willing to cooperate to expedite the project any way it can.

Written comments received - SHA Forms and Letters

Seventy six persons commented on the project, with sixty six using the SHA "Questions and/or Comments" forms and ten persons commenting in letter form. Eleven persons, including a representative of the Seven Courts Community Association, supported Alternate 4 Modified, forty three persons including representatives of Hallfield-Silvergate Improve- ment and Civic Association, Belmont South Community Association, Inc., and the Perry Hall Improvement Association, Inc. supported Alternate 3-B, one person supported Alternate 3, and twenty one persons offered no recommendation or discussed other issues.

Included in the above comments, two persons expressed preference for a six lane divided U.S. Route 1, five persons for the seven lane alternate, and three persons supported improvements.

The responses below were prepared to address the major issues and concerns expressed by the written comments:

Comment: Alternate 3-B would provide the MOST traffic relief to Silver Spring Road.

Response: All of the build alternates would provide some measure of relief to Silver Spring Road. It is the Study Team's conclusion that Alternate 4 Modified, in conjunction with the improvement of U.S. Route 1, would provide the most traffic relief for the entire roadway network in this area.

Comment: Alternate 3-B would give trucks from the Mall area, I-95 and U.S. Route 40, a more direct route to U.S. Route 1 north.

Response: All the Build Alternates would provide a direct route to U.S. Route 1 north, including Alternate 4 Modified which would intersect U.S. Route 1 0.36 mile south of the Alternate 3-B crossing of U.S. Route 1.

Comment: Alternate 3-B provides a local route for area shoppers destined for White Marsh Mall at a higher speed than provided by Silver Spring Road. Alternate 4 Modified does not provide for east-west movement within the study area.

Response: The total planned network consists of several roads both State and County. Rossville Boulevard, Perry Hall Boulevard, Honeygo Boulevard, Walther Boulevard, the extension of Silver Spring Road to Joppa Road, and other development roads will all provide improved east-west traffic circulation, as would any of the Maryland Route 43 alternates. Alternate 4 Modified specifically provides additional east-west local circulation via its connections with U.S. Route 1 and Walther Boulevard.

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Comment: Alternate 4 Modified will provide a shortcut between I-95 and I-695. Figure III-5 of the Draft Environmental Impact Statement indicates that Alternate 4 Modified would reduce the ADT on I-95 south of Maryland Route 43 by 10,000±.

Response: Our analysis indicates that because of the lower speed limit and signalized intersections associated with Alternate 4 Modified, travel time along it would be substantially longer than along I-95 and I-695. As a result few through motorists will use Alternate 4 Modified as a shortcut between I-95 and I-695. The reduction in ADT on I-95 south of Maryland Route 43 is caused by a diversion of non-through traffic which originates in or is destined to the White Marsh development area.

Comment: Traffic originating in the White Marsh Growth Area can access I-695 via Maryland Route 43 and I-95 under Alternate 3-B.

Response: Although this comment is true, the increased traffic at the I-95/Maryland Route 43 interchange would exceed the design capacity of the interchange by the design year 2010 under Alternate 3-B, whereas, the interchange would operate at acceptable Levels of Service under Alternate 4 Modified through the design year.

Comment: Alternate 4 Modified increases the traffic on U.S. Route 1 north of the Maryland Route 43/U.S. Route 1 interchange resulting in Level of Service F at the U.S. Route 1/Silver Spring Road intersection.

Response: Alternate 4 Modified would cause an increase of projected traffic on U.S. Route 1 of approximately 7 percent over Alternate 3-B in the link between Dunfield Road and Joppa Road. This is largely because Alternate 4 Modified would attract traffic from Joppa Road whose origin or destination is in the White Marsh growth area.

It is true that theoretically the Level of Service of the nearby U.S. Route 1 and Silver Spring Road intersection would be lower under Alternate 4 Modified than under Alternate 3-B. However, it should be noted that under Alternate 3-B, the U.S. Route 1-Maryland Route 43 intersection would operate at Level of Service "F", with a volume to capacity ratio of 1.16. This extremely poor level of service, coupled with the nearby U.S. Route 1 and Silver Spring Road intersection operating at Level of Service "E" (v/c ratio 0.99), would tend to create congestion throughout this area of U.S. Route 1, with both intersections operating virtually at capacity.

It should be pointed out that under Alternate 4 Modified, the main stream of traffic would be grade separated from U.S. Route 1, and that right turns only would be permitted at the ramp intersections on U.S. Route 1.

Comment: There is no guarantee that trucks will be prohibited, in the long run, from Maryland Route 43 on the Alternate 4 Modified alignment west of U.S. Route 1.

Response: Baltimore County, by letter dated April 10, 1984, has agreed to accept jurisdiction of a segment of Maryland Route 43 west of U.S. Route 1 along the Alternate 4 Modified alignment. Should Maryland Route 43 be constructed along this alignment, and upon its acceptance into the County system, trucks would be prohibited west of U.S. Route 1. Access roads to Maryland Route 43, including I-695, U.S. Route 1 and Maryland Route 43 itself, will be signed to advise of this prohibition. U.S. Route 1 will be designated as the truck route leading to I-695 and Maryland Route 43 east.

Comment: The Draft Environmental Impact Statement does not include any quantitative estimates of "current or consequential" water pollution and does not address the consequences of altering the water table.

Response: A quantitative analysis of water pollution is only useful if it can be compared to existing pollutant loads generated by study area roadways and development. This data is not available for the Maryland Route 43 study area. The traffic generated pollutants which would be found in roadway runoff from Maryland Route 43 are also generated by local roads, driveways, and parking lots. The stormwater runoff from Maryland Route 43 would be managed under the Department of Natural Resources' Stormwater Management Regulations. These regulations will require stormwater management practices in the following order of preference:

- on-site infiltration
- flow attenuation by open vegetated swales and natural depressions
- stormwater retention structures
- stormwater detention structures.

It has been demonstrated that these measures can significantly reduce pollutant loads in runoff. The increase in impervious surfaces which would result from the construction of Maryland Route 43 would not be significant when compared to the

existing conditions throughout the aquifer recharge area.

For additional information, please refer to page IV-12 of the Final Environmental Impact Statement.

Comment: Alternate 4 Modified is the only Maryland Route 43 alternate that exceeds the Federally acceptable noise criteria.

Response: Alternate 4 Modified does exceed the Federal Design Noise Abatement Criteria by 1 dBA in the design year of 2010. The existing noise level in this area is 66 dBA. The area would experience a 5 dBA increase to 71 dBA by the year 2010. A 5 dBA increase is considered a relatively minor increase. The construction of either of the U.S. Route 1 improvements would also cause this area to experience a noise level of 71 dBA in the year 2010. Noise abatement measures are discussed beginning on page IV-43. It has been determined that noise walls would not be cost effective anywhere along the project. However, landscaping, plantings and privacy fencing will be incorporated into the final design of the project as partial mitigation measures.

Comment: Alternate 4 Modified would require a larger amount of stream relocation than would have been required by Alternate 4, which has been dropped from the study, partly because of its large impact on White Marsh Run.

Response: The Alternates Meeting brochure indicated that Alternate 4 would have required 1,000 L.F. of stream relocation, all of which was White Marsh Run. As a result of refinements which were made to Alternate 4 Modified, the majority of stream relocation will occur to a minor tributary of White Marsh Run in the vicinity of Sunrise Trailer Park. The relocation of this tributary is included in the total 1600 L.F. relocation required under Alternate 4 Modified. As a result of meetings with the DNR, the amount of stream relocation required for this tributary has been reduced from 1180 L.F., as stated in the DEIS, to 840 L.F.

Approximately 860 L.F of White Marsh Run would still have to be relocated under Alternate 4 Modified, all in the vicinity of Walther Boulevard. It is pointed out that the drainage area to White Marsh Run at Walther Boulevard is substantially less than to White Marsh Run downstream of U.S. Route 1, where much of the stream relocation under Alternate 4 would have been required.

Comment: The construction of Alternate 4 Modified will increase the sediment in White Marsh Run and aggravate the flooding potential at U.S. Route 1.

Response: A sediment and erosion control program, which is subject to approval by the Department of Natural Resources will be developed during final design to control runoff during construction. The project will be designed in accordance with Maryland Storm Water Management Regulations which require that 2 and 10 year storm peak discharges will not increase as a result of the proposed construction. In accordance with FEMA Regulations the existing limits of the 100 year floodplain for Whitemarsh Run will not change as a result of the selected action. Therefore, no adverse effects to area septic systems are anticipated.

Comment: The project should be evaluated by persons other than the highway engineers.

Response: The Draft Environmental Impact Statement (DEIS) is being reviewed by numerous Federal and State agencies interested primarily in environmental factors. These agencies include the Soil Conservation Service, the U.S. Department of the Interior, the Environmental Protection Agency, the National Marine Fisheries Service, the Department of Housing and Urban Development, the U.S. Department of Agriculture, the United States Coast Guard, the U.S. Corps of Engineers, the Department of Energy, and the various agencies within the Maryland Department of Natural Resources.

Comment: The improvement of U.S. Route 1 should be extended to at least Joppa Road.

Response: The improvement of U.S. Route 1 to the Harford County line is included in the Twenty Year Needs Inventory. The section of U.S. Route 1 from I-695 to Silver Spring Road was considered to be essential to the operation of Maryland Route 43 and was, therefore, included in this study. Planning studies for U.S. Route 1 north of Silver Spring Road will be conducted at a future time.

Comment: Alternate 4 Modified most closely follows the alignment recommended for the White Marsh Stream Valley Park in the Final Report from the Perry Hall/White Marsh Development Plan Study. Why wasn't the impact on this Park mentioned in the Draft Environmental Impact Statement?

Response: Section 4(f) only applies to publicly owned parkland. Since no land has been acquired for the White Marsh Town Park, Section 4(f) does not apply. We are aware that the item on the recently passed parks and playgrounds referendum provided for "acquisition" of property, as well as construction. While the county may have long-range plans to develop the park, there is, in fact, no land currently in public ownership and designated as "White Marsh Town Park." The Baltimore County Planning Department is aware of the proposed Route 43 project.

That agency has assured us that no land for the park will be bought within the alignment of the Selected Alternative for the highway Route 43 project. Baltimote County has expressed support for the Alternate 4 Modified.

Comment: Alternate 4 Modified would locate Maryland Route 43 close enough to established communities to have an adverse effect on safety and aesthetic quality.

Response: Maryland Route 43 between I-695 and U.S. Route 1, will be turned over to Baltimore County upon completion. Special attention will be given to minimize the environmental and visual impacts on nearby residential communities in this area. Landscaping and fencing will be provided to screen the adjacent communities and increase safety. The vertical profile has been lowered to reduce visual impacts. In addition, the county will prohibit heavy trucks and commercial vehicles from using this section of Maryland Route 43.

Comment: How will the project affect my property?

Response: Refer to Alternates Mapping in Section II. Should your property be affected by the Selected Action you will be contacted during the final design phase of the project.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Services Division
Habitat Protection Branch
14 Elm Street
Gloucester, Massachusetts 01930-3799

JUN 11 1984

Mr. Wm. F. Schneider, Jr., Chief
Bureau of Project Planning
State Highway Administration
Room 310
707 North Calvert Street
Baltimore, Maryland 21202

Dear Mr. Schneider:

We have reviewed the Draft Environmental Impact Statement entitled "Maryland Route 43 Extended (Whitemarsh Boulevard) from west of U.S. Route 1 to Interstate Route 95 and U.S. Route 1 (Belair Road) Improvements from Interstate Route 695 to north of Silver Spring Road in Baltimore County, Maryland. Construction of these highway improvements will involve rechannelizing portions of Whitemarsh Run above U.S. Route 40. The area below U.S. Route 40 serves as a spawning area for white and yellow perch, alewife and blueback herring. However, the culvert at U.S. Route 40 prevents any passage of these anadromous fish beyond this point.

Provided adequate sediment control measures are taken, the project should not significantly impact resources for which the National Marine Fisheries Service is responsible.

Sincerely,

Bruce E. Higgins
Acting Branch Chief

Response: Before any of the rechannelizing takes place, coordination will be undertaken with the U.S. Fish and Wildlife Service and the Maryland Department of Natural Resources (DNR). A field review has been held with those two agencies to discuss the rechannelizing. Sediment and erosion control procedures will be reviewed and approved by DNR prior to the construction of the project. See page IV-14 for possible erosion control measures that may be used.

Federal Emergency Management Agency

Region III 6th & Walnut Streets Philadelphia, Pennsylvania 19106

June 22, 1984

Mr. William F. Schneider, Jr.
Bureau of Project Planning
State Highway Administration
707 North Calvert Street
Room 310
Baltimore, Maryland 21202

RE: Draft Environmental
Impact Statement
Maryland Route 43 Extended
FHWA-MD-EIS-84-01-D

Dear Mr. Schneider:

We have reviewed the above-referenced document and found no need to comment.

Sincerely,

James R. Gaber
for
Walter P. Pierson
Chief
Natural and Technological
Hazards Division

Response: None Required

United States Department of Agriculture
Forest Service
Northeastern Area State & Private Forestry
370 Reed Road
Broomall, PA 19008

Reply to: 1950

Date: June 25, 1984

Mr. Neil J. Pedersen
Acting Director
Office of Planning and
Preliminary Engineering
Maryland Department of Transportation
707 North Calvert Street
Baltimore, Maryland 21203

Dear Mr. Pedersen:

We have reviewed the Draft Environmental Impact Statement, Section 4(f) Evaluation of the Maryland 43 Extended and U.S. Route 1 (Belair) Improvements and have no comments.

Sincerely,

Michael J. Rains

for DUANE L. GREEN
Deputy Director

Response: None Required

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

July 5, 1984

Mr. William F. Schneider, Jr.
Chief, Bureau of Project Planning
State Highway Administration
707 North Calvert Street, Rm 310
Baltimore, Maryland 21202

Dear Mr. Schneider:

This is in reference to your draft environmental impact statement for the proposed Maryland Route 43 Extended (Whitemarsh Boulevard) from west of U.S. Route 1 to Interstate Route 95 and U.S. Route 1 (Belair Road) improvements from Interstate Route 695 to north of Silver Spring Road in Baltimore County, Maryland. Enclosed are comments from the National Oceanic and Atmospheric Administration.

We hope our comments will assist you. Thank you for giving us an opportunity to review the document. We would appreciate receiving two copies of the final environmental impact statement.

Sincerely,

Joyce M. Wood
Chief, Ecology and
Conservation Division

Enclosure

DC:das

Response: This agency will be sent a copy of this document.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
6TH AND WALNUT STREETS
PHILADELPHIA, PENNSYLVANIA 19106

JUL 5 1984

William F. Schneider, Jr., Chief
Bureau of Project Planning
State Highway Administration
Room 310
707 North Calvert Street
Baltimore, Maryland 21202

Re: Maryland Route 43 Extended (Whitemarsh Blvd) and U.S. Route 1 Impoundments (Belair Road), Baltimore County, MD (D-FHW-D40197-MD)

Dear Mr. Schneider:

We have reviewed the draft Environmental Impact Statement for the above proposed project and have classified it as ER-2 in EPA's Reference Category. We have enclosed a copy of the Definition of Codes for the General Nature of EPA Comments to provide a more detailed description of this rating. Also, in accordance with our responsibilities under Section 309 of the Clean Air Act to inform the public of EPA views on the potential environmental effects of Federally assisted actions, this rating will be published in the Federal Register. Our concerns are presented below.

1. The noise analysis gave an adequate indication of noise impacts that can be expected to result from operation of the facility. However, the EIS was not completely adequate in its discussion of the potential abatement measures for these impacts.

At several sites where impacts were shown to be significant, barriers were also shown to be physically effective (sites 9, 21, 25, and 26 with alternative 4 modified for example). However, these barriers were not determined to be cost effective due to the low number of receptors protected. While we recognize that a cost/benefit determination must be made, we do not understand how FHWA or the Maryland State Highway Administration make this decision. It would assist us in undertaking our future reviews if the final EIS would discuss at what dollar figure a barrier is considered cost-effective and the rationale behind this determination.

Furthermore, since the need for attenuation has been adequately shown, and since it is feasible to provide uninterrupted protection at some sites, the final EIS should consider landscaping and/or plantings to control noise at the appropriate receptor sites. This may prove to be cost effective at sites 9, 21, 25, and 26; and may also be physically effective at sites previously considered too far from the roadway for effective attenuation, such as sites 20A, 20B, 21 (Alts 3, 3A, 3B, and 3B modified), and 22.

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2. We support the stormwater and erosion controls as disussed. However, more data (water quality, benthics, fish population, etc.) in the channel segments to be relocated should be provided in the final EIS. The draft EIS states that the channelized areas are currently designated as Class IV water (recreational trout). Therefore, if water quality in these streams is good, appropriate mitigation must be provided to assist in the stream's recovery. Appropriate mitigation would include shading, riffle: pool areas, and a substrate which would support the development of a fishery. Additional appropriate mitigation measures should be developed and presented in the final EIS.

We hope these comments assist you in meeting your NEPA responsibilities. If you have any questions, or if we can be of further assistance, please contact Mr. William J. Hoffman of my staff at 215-597-7828.

Sincerely,

John R. Pomponio, Chief
Environmental Impact and
Marine Policy Branch

1. Under the selected alternate one site will exceed Federal Design Criteria by 1 dba and eleven would experience increase of 10 dba or more. It has been determined that barriers would not be cost effective. A description of the sites is presented beginning on page IV-43. The State Highway Administration does not have a specific dollar figure to determine if a barrier is cost effective. Other factors that are considered are number of structures protected, spacial distribution of structures, noise reduction achieved, and land use or type of activities that take place. All of these items are given serious consideration when determining whether a noise barrier would be constructed.
   Landscaping, plantings and privacy fencing will be included in construction plans as partial mitigation measures, where required.
2. See page IV-19 on the species that are found in the streams. Appropriate measures will be coordinated with the Maryland Department of Natural Resources to maintain or improve the quality of the streams.

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United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

ER 84/640

JUL 17 1984

Mr. Emil Elinsky
Division Administrator
Federal Highway Administration
The Rotunda, 711 West 40th Street
Baltimore, Maryland 21211

Dear Mr. Elinsky:

This is in response to the request for the Department of the Interior's comments on the draft environmental/Section 4(f) statement for **SR-43 Extended** (Whitemarsh Boulevard from US-1 to I-95) and US-1 (Belair Road from I-695 to Silver Spring Road), Baltimore County, Maryland.

SECTION 4(f) STATEMENT COMMENTS

We concur that the preferred Alternate 4 Modified for SR-43 Extended is a feasible and prudent alternative to the use of land from Belmont Park. In addition, we are also willing to concur that there are no feasible and prudent alternatives to either of the US-1 Build Options to avoid use of the Waldman House.

With regard to the second proviso, in the case of the Waldman House, we recommend investigation of the possibility of moving the structure to another location on its present lot. Should this prove to be not prudent, the Waldman House should be documented in accord with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 FR 44716; September 29, 1983) before demolition.

ENVIRONMENTAL STATEMENT COMMENTS

We take exception to the statement on page IV-24 that impacts to aquatic life will be reduced to negligible levels. Since all build alternatives are adjacent to White Marsh Run, impacts will be much greater than for a simple crossing. Even with the best of sediment controls in place and maintained, heavy siltation of White Marsh Run is probable.

Stormwater management and sediment control plans should be developed and discussed in the final statement. Additional right-of-way needed for this could be taken from lands lying between the proposed highway and White Marsh Run, which would also be beneficial to aquatic resources by reducing development pressures adjacent to the flood plain.

FISH AND WILDLIFE COORDINATION ACT COMMENTS

The statement recognizes other interrelated Federal actions associated with this project such as the issuance by the Corps of Engineers of a permit for the conduct of dredge and fill activities. Since the statement evaluates the impacts of the interrelated Federal action(s), we will use this opportunity to provide the Fish and Wildlife Service's (FWS) preliminary comments, pursuant to the Fish and Wildlife Coordination Act (16 U.S.C. 661, et seq.).

Previous coordination with the FWS on this project indicated that stream channelization had been eliminated. However, we note that all alternatives involve channelization with the exception of Alternative 3A. The FWS believes that, with further coordination and site review, the extent of stream channelization could be substantially reduced. The FWS is also concerned about the stormwater management and sediment control plans and other mitigation features that will be incorporated into the project. We recommend further coordination on this project with the FWS and inclusion of the results of such coordination in the final statement. Please contact the Field Supervisor, Fish and Wildlife Service, Division of Ecological Services, 1825 Virginia Street, Annapolis, Maryland 21401 (telephone: FTS 922-2007, commercial 301/269-5448).

SUMMARY COMMENTS

The Department of the Interior has no objection to Section 4(f) approval of this project, provided the measures to minimize harm discussed above are included in project plans and documented in the final statement.

We appreciate the opportunity to provide these comments.

Sincerely,

Bruce Blanchard, Director
Environmental Project Review

cc: Mr. William F. Schneider, Jr.
Chief, Bureau of Project Planning
MD State Highway Administration
707 North Calvert Street
Room 310
Baltimore, MD 21202

Mr. J. Rodney Little
MD State Historic Preservation Officer
John Shaw House
21 State Circle
Annapolis, MD 21401

Response to: Department of the Interior July 17, 1984

1. Alternate 4 Modified has been selected. Demolition of the Waldman House by a private developer occurred in December, 1984.

2. Sediment and erosion control procedures are discussed beginning on page IV-13. All procedures used will be coordinated with the Maryland State Water Resources Administration and the Maryland Department of Health and Mental Hygiene.

3. Possible stormwater management and sediment control plans are discussed beginning on page IV-13. There has been coordination and field reviews with the U.S. Fish and Wildlife Service. This coordination will continue as the project proceeds through final design.

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U.S. Departme[nt of] Housing and Urban Development
Philadelphia Regional Office, Region III
Curtis Building
6th & Walnut Streets
Philadelphia, Pennsylvania 19106

JUN 25 1984

Mr. William F. Schneider, Jr.
Chief
Bureau of Project Planning
State Highway Administration
707 North Calvert Street - Room 310
Baltimore, MD 21202

Dear Mr. Schneider:

We have completed our review of the Draft Environmental Impact Statement (DEIS)/Section 4(f) Evaluation for Maryland Route 43 Extended and U.S. Route 1 Improvements from I-695 to north of Silver Spring Road in Baltimore County. In general, we consider the document to be well prepared although we do have a number of comments, as follows:

1. On page I-1, reference is made to projections indicating population increases to be experienced between 1980 and 2010. We suggest that the source of these projections be identified in the Statement.

2. While the Statement notes that all four build alternatives would encroach upon the 100 year floodplain of Whitemarsh Run and its tributaries, there is no reference to compliance with Executive Order 11988. We recommend that evidence of such compliance be included in the Final EIS.

3. In order to enhance understanding of the setting for the various alternatives, we recommend that, in addition to including the map of Future Land Use on page III-15, a map of existing zoning be included as well.

4. The assessment of noise impacts is thoroughly done. Unfortunately, we feel its value is limited by focusing only on selected noise sensitive locations. We feel that noise impacts would be better presented if, in addition to the specific receptor information presented, L 10 contours were also included at a scale of 1"=200' along the proposed alignment of each build alternative.

We appreciate being given the opportunity to comment and look forward to receiving the Final EIS when it is completed.

Sincerely,

Francis X. Healy
for Kenneth J. Finlayson
Regional Administrator

Response to: Housing and Urban Development June 25, 1984

1. The projections were made by the Regional Planning Council Round II Projections. This reference has been added on page I-1.
2. Compliance with E.O. 11988 and the Federal Aid Highway Program Manual is included in this document. See page IV-17 and IV-18.
3. The future land use map was taken from Baltimore County's Approval 1980 Comprehensive Zoning map. Both maps are the same in regard to zoning and land use.
4. Contour maps may provide a better overall picture. However, the purpose of the noise analysis was to focus in a residential area and areas that would be sensitive to an increase in noise levels. In this way specific mitigation measures, if required, can be studied to determine their effectiveness.

CC: Mr. L. Ege - For Follow-through Action.

7/11/84 NJP

MARYLAND
DEPARTMENT OF STATE PLANNING
301 W. PRESTON STREET
BALTIMORE, MARYLAND 21201-2365

HARRY HUGHES
GOVERNOR

CONSTANCE LIEDER
SECRETARY

RECEIVED

JUL 9 1984

DIRECTOR, OFFICE OF
PLANNING & PRELIMINARY ENGINEERING

July 5, 1984

Mr. Neil J. Pedersen
Acting Director
Office of Planning and
Preliminary Engineering
MD. Dept. of Transportation
P.O. Box 717
707 North Calvert Street
Baltimore, MD 21203

SUBJECT: REVIEW AND RECOMMENDATION

State Identification Number: MD 84-5-622

Applicant: State Highway Administration

Description: Draft EIS - Md. Rte. 43 Extended - Whitemarsh Boulevard - West of U.S. Rte. 1 to I-95 and U.S. Rte. 1 from I-695 to North of Silver Spring Road -- Contract #B 818-151-471

Location: Baltimore County

Approving Authority: U.S Dept. of Transportation

CFDA Number: 20.205

Recommendation: Endorsement with Comments

Dear Mr. Pedersen:

The State Clearinghouse has coordinated the intergovernmental review of the referenced subject. Acting under Article 88C of the Annotated Code of Maryland and Code of Maryland Regulations 16.02.03, the State Clearinghouse received the following comments:

Regional Planning Council, Department of Education, Department of Public Safety and Correctional Services, Department of Budget and Fiscal Planning, Department of General Services, Department of Economic and Community Development including their Maryland Historical Trust section, Department of Natural Resources, Department of Health and Mental Hygiene's Office of Planning and Office of Environmental Programs, and the Department of State Planning stated that the subject is consistent with their plans, programs and objectives as of this date.

The Historical Trust also noted (copy attached) that they support Alternative 4 Modified and that they should be further consulted if an alternative is selected which would adversely affect the Waldman House historical property.

The Environmental Office requests that the final design plans be submitted to their office.

TELEPHONE: 301-383-7875
OFFICE OF STATE CLEARINGHOUSE

The Natural Resources Department presented detailed comments (copy attached) on the draft EIS and noted that the proposed project encroaches within the 100-year floodplain of Whitemarsh Run. Therefore, the project will need to obtain several Waterway Construction Permits from their agency. Alternative 3A and the 7-lane improvement of U.S. Route 1 appears to minimize the environmental impact associated with the project.

As a result of the review, it has been determined that the subject is consistent with Maryland plans, programs, and objectives as of this date. The State process recommendation is endorsement subject to the condition that the referenced comments are properly considered and addressed in the final EIS.

In accordance with established procedures, a copy of this letter and a statement of the consideration which you have given to the comments must be included in the final EIS.

The State Clearinghouse should be kept informed of any decisions made with regard to this subject. The Clearinghouse recommendation is valid for a period of three years from the date of this letter. If the approving authority has not made a decision regarding the subject within that time period, information should be submitted to the Clearinghouse requesting a review update.

We appreciate your attention to the intergovernmental review process and look forward to continued cooperation.

Sincerely,

Guy W. Hager
Director, Maryland State Clearinghouse
for Intergovernmental Assistance

GWH/cw

Attachments

cc: Diane Moll
Wilson Horst (84-135)
Bruce Gilmore
Clyde Pyers
Lowell Frederick
Max Eisenberg
Betsy Barnard
Fred Licktcig
Eric Walbeck
John O'Neill
Calvin Buford
Scrib Sheafor

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Date: June 29, 1984

DEPT. OF STATE PLANNING
RECEIVED
JUL -3 1984
REVIEWED
APPROVED

Director
Maryland State Clearinghouse
for Intergovernmental Assistance
301 West Preston Street
Baltimore, MD 21201-2365

SUBJECT: REVIEW COMMENT AND RECOMMENDATION

State Identification Number: MD 84-5-622

Applicant: Baltimore County

Description: DEIS (B818-151-471) Md. Rt. 43 Extended-W. of U.S. 1 to I-95; U.S. 1-I-695 to Silver Spring Road

Responses must be returned to the State Clearinghouse on or before June 21, 1984.

Based on a review of the notification information provided, we have determined that:

Check One:

_____ 1) It is consistent with our plans, programs, and objectives (and when applicable, with the Coastal Zone Management Program and Historic Preservation Standards).

X 2) It is generally consistent with our plans, programs, and objectives, but the qualifying comment below is submitted for consideration.

_____ 3) It raises problems concerning compatibility with our plans, programs, or objectives, or it may duplicate existing program activities, as indicated in the comment below. If a meeting with the applicant is requested, please check here _____.

_____ 4) Additional information is required to complete the review. The information needed is identified below. If an extension of the review period is requested, please check here _____.

_____ 5) It does not require our comments.

COMMENTS: _____

(Additional comments may be placed on the back or on separate sheets of paper)

Signature: Diane G. Moll

Name: Diane G. Moll

Organization: Water Resources Administrati

Address: Tawes State Office Bldg. D-2
Annapolis, Md. 21401

TORREY C. BROWN, M.D.
SECRETARY
JOHN R. GRIFFIN
DEPUTY SECRETARY

JAMES W. PECK
DIRECTOR

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

June 28, 1984

MEMORANDUM

TO: Diane Moll

FROM: C. Kirk Cover

SUBJ: State Clearinghouse No. MD 84-5-622
MDOT - State Highway Administration
DEIS (B-818-151-471) MD 43 Extended - W. of US 1 to I-95; US Rt. 1 - I-695 to Silver Spring Road in Baltimore County

The above referenced Clearinghouse project (Draft Environmental Impact Statement) has received necessary review relative to COMAR 08.05.03.01 to 08.05.03.11. The following are the results of our review:

1. The proposed extension of MD 43 will include several encroachments within the 100-year floodplain limits of Whitemarsh Run and its tributaries, several stream crossings and a significant relocation of stream channel at different locations.

2. The proposed improvements on US Rt. 1 will also involve activities within the limits of the 100-year floodplain, such as floodplain encroachments and extension of existing culverts.

Therefore, the subject project requires several Waterway Construction Permits from this office. Furthermore, the aforementioned DEIS was routed through different Agencies of DNR and the following is a summary of their comments:

1. The Maryland Forest, Park and Wildlife Service has no record of any critical or unique wildlife habitats in the project area. The preferred alternative will not impact the area any more significantly than the other build alternate investigated.

Telephone: (301) 269-2265
TTY FOR DEAF-BALTIMORE 269-2609 WASHINGTON METRO 565-0450

2. The Capital Programs Administration has reviewed the subject project and stated that they found the project not inconsistent with the plans, programs, or objectives of their Agency.

3. The DEIS document addressed coordination with the U. S. Fish and Wildlife Service and the Maryland Wildlife Administration concerning rare and endangered species. The Heritage Program agrees with the determination that no rare species are known to occur within the said project area. Review of future EIS's would be considerably expedited if the documents would include an assessment of improvement in traffic service and safety in their summary. Table S-1 gives the pertinent socio-economic and environmental impacts for each alternative but does not indicate how well each would effect traffic flows.

Based on the strict information contained in Table S-1 and Section IV, a selection of MD 43 Extended Alternate 3A and the 7 Lane Improvement of US Route 1 minimizes environmental impact.

The comments from the Wetlands Division of WRA and the Tidewater Administration, along with comments from the Erosion and Stormwater Management Divisions, are enclosed.

CKC:das

Enclosures

Response:

1. The appropraite permits will be applied for, as the project proceeds through final design.
2. This information will be included in future documents, when possible for Md. 43.
3. Alternate 4 Modified was selected for transportation service and safety reasons. See Section II of this document for explanations as to why these alternates were selected.

TORREY C. BROWN, M.D.
SECRETARY
JOHN R. GRIFFIN
DEPUTY SECRETARY

JAMES W. PECK
DIRECTOR

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

June 28, 1984

MEMORANDUM

TO: M. Q. Taherian, Project Engineer
Watershed Permits Division

FROM: Paul F. Clement, PFC Water Resources Engineer

THRU: H. Earl Shaver, Chief
Sediment and Stormwater Division

SUBJ: Clearinghouse No. MD 85050622
DEIS (B-818-151-471) MD 43 Extended - West of US 1 to I-95;
US 1/I-695 to Silver Spring Road in Baltimore County

The Draft Environmental Impact Statement has been reviewed by the Sediment and Stormwater Division. As a result of that review, the Division has the following comments:

I. In regards to Sediment Control:

a. The soils in the area are, for the most part, highly erodible. For Alternate 3, 3A, 3B, and 3B MODIFIED the soils encountered are essentially the same. Alternate 3A would have the least impact since it disrupts the least amount of soil. Alternate 3B and Alternate 3B MODIFIED have greater impact since they disrupt larger areas of soil and also disrupt larger areas of alluvial soils, which are highly erosive. Alternate 3 would have even larger impacts since larger areas would be disturbed.

b. Alternate 4 MODIFIED would have the greatest impacts in respect to erosion and sediment control. There is a greater amount of earth disturbed, there are more erodible soils encountered, there is a greater potential for

Telephone: (301) 269-2265
TTY FOR DEAF-BALTIMORE 269-2609 WASHINGTON METRO 565-0450

erosion since the existing topography is steeper, and there is a greater potential for sedimentation due to the nearness of the project to existing waterways.

c. Alternates for the six and seven lane build alternates for US 1 are very similar. The seven lane alternate has a greater potential for problems since it involves larger areas of disturbance. Again, the soils are highly erodible, particularly in the vicinity of Whitemarsh Run.

d. On page IV-19 of the document, it is stated that "... with application of available erosion control technology no significant impact to surface water quality is generally anticipated." Nowhere in the document have the impacts of erosion and sediment control been investigated. Generally, the best sediment control would still allow 30% of sediments to leave the site. These 30% of sediments may have a significant impact to surface water quality for the Whitemarsh Run and its tributaries. It would be appreciated if the statement could be substantiated. by the SHA.

II. In regards to Stormwater Management there are potentially more areas for infiltration with Alternates 3, 3A, 3B, and 3B MODIFIED than with Alternate 4 MODIFIED. This is based on the larger percentage amounts of type A and type B soils encountered by the first four alternates. Alternate 4 MODIFIED would also have greater impacts to water quality and quantity since it involves larger areas of disturbance.

PFC:das

Response:

1. The term "significant" may have been to strong. The State Highway Administration will use the most efficient methods available to control erosion and sedimentation. All procedures used will be reviewed and approved by the Department of Natural Resources. Some possible methods to be used are shown on page IV-14.

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JUN 12 1984

MD. ENERGY ADMIN.

DEPARTMENT OF NATURAL RESOURCES
Maryland Forest, Park & Wildlife Service
TAWES OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

TORREY C. BROWN, M.D.
SECRETARY

DONALD E. MacLAUCHLAN
DIRECTOR

MEMORANDUM

TO: Gene Gopenko
Water Resources Administration

FROM: Carlo R. Brunori CRB
Chief, Technical Services Division

SUBJ: DEIS Statement 4 (f) Evaluation, MD Rt. 43
Extended and US Rt. 1 Improvements

DATE: June 7, 1984

We have reviewed the 4 (f) statement. We have no record of any critical or unique wildlife habitats in the project area. The prefered alternate will not impact the area any more significantly than the other build alternate investigated.

Thank you for the opportunity to review the proposal.

CRB:dec

Response: None Required.

Telephone Ext. 3195
TTY FOR DEAF: STATEWIDE 1-800-492-5062; BALTIMORE 269-2609

TORREY C. BROWN, M.D.
SECRETARY
LOUIS N. PHIPPS, JR.
DEPUTY SECRETARY

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
CAPITAL PROGRAMS ADMINISTRATION
TAWES STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

FRED L. ESKEW
ASSISTANT SECRETARY
FOR CAPITAL PROGRAMS

June 11, 1984

MEMORANDUM

TO: Gene Gopenko

FROM: Pat Bright

SUBJECT: Draft E.I.S.
Route 43/Rt. 1 to 695, Rt. 1/695

The subject project has been reviewed and we find that it is not inconsistent with the plans, programs, or objectives of this Agency.

This EIS documents coordination with the U.S. Fish and Wildlife Service and the Maryland Wildlife Administration concerning rare and endangered species. The Heritage Program agrees with their determination that no rare species are known to occur within this project area. Basically, there are no comments on this project. Review of future EIS's would be considerably expedited if SHA would include an assessment of improvement in traffic service and safety in their Summary. Table S-1 gives the pertinent socio-economic and environmental impacts for each alternative but does not indicate how well each would affect traffic flow.

This would be especially useful since it would take a great deal of time to figure out the text discussion in Part IV. Based strictly on the information contained in Table S-1 and one read-through of Section IV, a selection of MD Route 43 Extended Alternate 3A and the 7 lane improvement of U.S. Route 1, would be recommended since they minimize environmental impact and cost.

PJB:jtd

Response:

1. This information will be provided in future documents, when possible.

Telephone Ext 2002

TTY for Deaf - Annapolis - 269-2609 D.C. Metro - 565-0450

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TORREY C. BROWN, M.D.
SECRETARY
JOHN R. GRIFFIN
DEPUTY SECRETARY

JAMES W. PECK
DIRECTOR

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

May 28, 1984

MEMORANDUM:

TO: Gene Gopenko, Watershed Permits Division

FROM: Theodore J. Hogan, Wetlands Division

SUBJ: Draft EIS. Section r(f) Evaluation
Md. Rt. 43 Extended and U.S. Route 1 Improvements

I have reveiwed the subject document as it relates to identification of and potential impacts to wetlands.

Non-tidal wetlands are identified within the study corridor based on the U. S. Fish and Wildlife Service National Wetlands Inventory. However, the document states that no wetlands would be affected by any of the alternates.

No tidal waters or wetlands exist within the study area. Therefore, we have no wetland licensing obligations for this project.

The document indicates that the preferred alternate (alternate 4 modified) would require 5 stream crossings and 1940 feet of stream relocation. The impacts of such construction needs to be addressed in more detail.

ew

Response:

1. A discussion of stream involvement is presented on page IV-14. The Department of Natural Resources and other appropriate agencies will be coordinated with during final design to develop the best methods to relocate the streams and minimize impacts.

Telephone: (301) 269-3871
TTY FOR DEAF-BALTIMORE 269-2609 WASHINGTON METRO 565-0450

Torrey C. Brown, M.D.
SECRETARY

John R. Griffin
DEPUTY SECRETARY

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
TIDEWATER ADMINISTRATION
TAWES STATE OFFICE BUILDING
ANNAPOLIS 21401

June 11, 1984

MEMORANDUM

WATER RESOURCES ADMIN.
WATERSHED PERMITS

TO: Gene Gopenko, Watershed Permits, Water Resources Administration

FROM: George Krantz, Director, Fisheries Division

SUBJECT: Fisheries comments for the Whitemarsh Run Draft Environmental Impact Statement (DEIS) Section 4 (f) Evaluation.

On August 23, 1983 Cold Water staff performed an on-site inspection of the Whitemarsh Run watershed. Fish, invertebrate, chemical and physical data were obtained from mainstem and tributary access points during the inspection.

Findings:

1) No trout were found to exist within the stream system.

2) All data and observations indicate a stream system currently suffering from intense residential and commercial development. Few undisturbed tracts of land remain in the study area at the present time.

3) Evidence of frequent flooding can be seen throughout most of the watershed. Much of the main stem of Whitemarsh Run is wide, shallow and heavily laden with sediment.

4) Fish sampling efforts disclosed an abundance of various minnow species suggesting a thermal problem exists within the watershed.

5) Actual water and air temperatures revealed early morning water temperatures that approximated air temperatures for that day (i.e.), Whitemarsh Run main stem at Philadelphia Road approximately 11:00 am; water temperature 77^0F, air temperature 78^0F.

Recommendations:

From a fisheries standpoint, the most desired Maryland Route 43 extended alternate option would clearly be the no-build alternate. This option would have the least number of adverse impacts upon the Whitemarsh Run watershed.

Of the build alternates, it appears that the best case alternate would be "3A". Alternate 3A proposes the fewest number of stream crossings (3) and proposes "no stream realignments".

The worst of the build alternates would appear to be alternate 4 Modified as it proposes (5) stream crossings and 1940 linear feet of stream realignment within the Whitemarsh Run watershed.

Response:

1. Alternate 4 Modified has been selected. The stream crossings and realignments will be coordinated with the Department of Natural Resources and other appropriate agencies to minimize impacts as much as possible.

CG/clw
cc: Journal
Subject
Gougeon
Woronecki

188

June 25, 1984

Response: All corrections and additions have been made.

Mr. L. Ege, Acting Chief
Bureau of Project Planning
State Highway Administration
707 North Calvert Street, Rm. 310
Baltimore, Maryland 21202

Re: Contract No. B 818-151-471
P.D.M.S. No. 032006
MD Rte. 43 Extended (Whitemarsh Boulevard)

Dear Mr. Ege:

In accordance with the letter dated May 1, 1984 on the above referenced project, Baltimore County's Department of Public Works is offering the following comments:

Page I-1 -- Paragraph A, second line:

Should be northeast instead of southeast, as shown.

Page I-6 -- Third paragraph, second line:

Shows 66,00 vehicles. Should this be 66,000 vehicles?

Page II-2 - First paragraph, second line:

Gives reference to proposed four lane Perry Hall Boulevard, proposed four lane Rossville Boulevard.

Should be proposed six lane Perry Hall Boulevard -- proposed four lane plus one continuous left turn lane for Rossville Boulevard.

No-Build Alternate - Figure 11-5

Does not reflect the County's plan for the extension of:

1. Dunfield Road — Belair Road to Perry Hall Boulevard
2. Campbell Boulevard — Honeygo Boulevard to Philadelphia Road
3. Walther Boulevard — Joppa Road to Gunview Road
4. Proctor Lane — Harford Road to Walther Boulevard

Very truly yours,

HARRY J. PISTEL, P.E.

HJP:JJT:hhm

cc: Mr. John J. Trenner

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BALTIMORE COUNTY
OFFICE OF PLANNING AND ZONING
TOWSON, MARYLAND 21204
494-3211

NORMAN E. GERBER
DIRECTOR

May 29, 1984

Mr. William F. Schneider, Jr., Chief
Bureau of Project Planning
State Highway Administration
707 North Calvert Street
Room 310
Baltimore, Maryland 21202

Dear Mr. Schneider:

My staff has reviewed the Draft Environmental Impact Statement and Section 4(f) Evaluation for Maryland 43 and U.S. Route 1. Your office is to be commended for doing a thorough and generally accurate piece of work. As in any project of this magnitude, however, there are some corrections and clarifications that should be made. They are as follows:

PAGE

III-11 Change "Baltimore County's Office of Planning" to "Baltimore County" in the second paragraph.

III-15 The subjects and verbs do not agree in number in the last sentence of the second paragraph nor do they agree in the third paragraph.

Figure III-4 The future land use shown as commercial in Belmont should be Moderate-High Density Residential. The area bounded by Dunfield Road, Walther Boulevard, Kintore Drive and the stream shown as Median-High Density Residential should be Commercial.

III-22 Should the term "reduced accident policy" be "reduced accident reporting policy?"

IV-1 & 2 The numbers of residences to be acquired appears inconsistent with the tabulations in the Combined Location/ Design Public Hearing brochure.

IV-5 The numbers of businesses to be displaced by widening U.S. Route 1 are inconsistent with the Public Hearing brochure mentioned above.

IV-28 In the Meteorological Data section, one meter per second should be translated to 3.28 feet per second or speeds and temperatures should be given in International System Units.

PAGE

IV-41 et seq. Since Baltimore County would prohibit trucks from Whitemarsh Boulevard between I-695 and U.S. 1, noise levels should be calculated with and without heavy and medium duty trucks in the traffic mix on this link of Alternate Four Modified.

IV-45 Noise levels at Site #8 should be calculated for Alternates Three, Three B, and Three B Modified.

IV-57 More detail and greater emphasis must be given to the use of grading and landscaping to reduce noise levels.

Thank you for giving my office the opportunity to review the draft E.I.S. and 4(f) Evaluation. I hope you find our suggestions helpful.

Sincerely,

NEG:WAI:vh

Norman E. Gerber
Director of Planning
and Zoning

Response: Baltimore County Office of Planning and Zoning May 24, 1984

1. All of these corrections have been made.
2. The air quality analysis was completed in accordance with Federal Highway Administration procedures. The termonology used is also consistent with federal requirements.
3. This analysis has been completed and is presented on page IV-48 of this document.
4. Landscaping, plantings and privacy fencing will be used where possible, as partial mitigation to reduce noise levels. The specific type of plantings or partial mitigation measure to be used will be determined during final design of this project and will be coordinated with the affected property owners.

Maryland Historical Trust

December 20, 1983

Mr. Louis H. Ege, Jr., Chief
Environmental Management
Maryland Dept. of Transportation
State Highway Administration
P.O. Box 717
707 North Calvert Street
Baltimore, Maryland 21203-0717

RE: Maryland Route 43 Extended
From U.S. Route 1 to Honeygo Blvd.
Contract No. B 818-011-471
Baltimore County

Dear Mr. Ege:

Thank you for your letter of December 14, 1983 and the summary of the Maryland Geological Survey's archeological evaluation.

Based upon the information provided, we concur that the project will have no effect on significant archeological resources and that, therefore, no further investigations are necessary.

Thank you for providing us with this opportunity to comment.

Sincerely,

J. Rodney Little
Director
State Historic Preservation Officer

JRL/RBH/mbh
cc: Ms. Rita Suffness
Mr. Tyler Bastian

Shaw House, 21 State Circle, Annapolis, Maryland 21401 (301)269-2212, 269-2438
Department of Economic and Community Development

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UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
DELMARVA AREA OFFICE
1825 VIRGINIA STREET
ANNAPOLIS, MD 21401

June 15, 1982

Mr. William F. Schneider
Bureau of Project Planning
State Highway Administration
P.O. Box 717
707 N. Calvert Street
Baltimore, MD 21203

RE: Maryland Route 43 extended
(White Marsh Boulevard)
Baltimore County

Dear Mr. Schneider:

This responds to your May 20, 1982, request for information on the presence of Federally listed or proposed endangered or threatened species within the impact area of the referenced project.

Except for occasional transient individuals, no Federally listed or proposed endangered or threatened species are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 Consultation is required with the Fish and Wildlife Service (FWS). Should project plans change, or if additional information on the distribution of listed or proposed species becomes available, this determination may be reconsidered. If project implementation is to occur more than 180 days in the future, we recommend that you verify the absence of endangered species with this office prior to finalization of your project plans.

This response relates only to endangered species under our jurisdiction. It does not address other FWS concerns under the Fish and Wildlife Coordination Act or other legislation.

Thank you for your interest in endangered species. If you have any questions or need further assistance, please contact Martha Carlisle or Andy Moser of our Endangered Species staff at (301) 269-6324.

Sincerely yours,

for John D. Green
Area Manager

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MARYLAND DEPARTMENT OF NATURAL RESOURCES
WILDLIFE ADMINISTRATION

BERNARD F. HALLA
DIRECTOR

TAWES STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401
(301) 269-2752
TTY for Deaf: (301) 269-2609

June 3, 1982

Mr. Louis H. Ege, Jr.
State Highway Administration
P.O. Box 717/707 North Calvert St.
Baltimore, Maryland 21203-0717

Dear Mr. Ege:

There are no known populations of threatened or endangered species within the area of project limits for the project involving MD Rt. 43 extended (Whitemarsh Blvd.), Baltimore county, as described in your letter to me of May 20, 1982.

Sincerely,

Gary J. Taylor
Nongame & Endangered
Species Program Manager

GJT:ba
cc: C. Brunori
M. Carlisle

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 CHESTNUT STREET
PHILADELPHIA, PENNSYLVANIA 19106

APR 11 1984

Louis H. Ege, Jr., Chief
Environmental Management
Maryland State Highway Administration
P.O. Box 717
707 North Calvert Street
Baltimore, Maryland 21203-0717

Re: Air Analysis, Maryland Route 43 Extended and U.S. Route 1 Improvements, Baltimore County, MD (A-FHW-D40197-MD)

Dear Mr. Ege:

We reviewed the Air Analysis performed for the above referenced project. Based upon this review, we have no objection to further development of the project as described from an air quality standpoint. As such, we have rated this document LO-1 in EPA's classification system.

This review is not intended to reflect our opinion on other potential impacts of the action such as water quality, wetland, or noise impacts. We intend to provide additional comments when the appropriate environmental documents are submitted for our review. We have noted that stream channelization is proposed with several of the alignments. Every effort should be made to avoid the impacts associated with the involvement during ongoing project development.

We hope our comments assist you in meeting your NEPA responsibilities. If we can be of further assistance, please contact Mr. William J. Hoffman of my staff at 215-597-7828.

Sincerely,

John R. Pomponio, Chief
Environmental Impact and
Marine Policy Branch

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TORREY C. BROWN, M.D.
SECRETARY

J. H. PHIPPS, JR.
DEPUTY SECRETARY

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
MARYLAND GEOLOGICAL SURVEY
THE ROTUNDA
711 W. 40TH STREET, SUITE 440
BALTIMORE, MARYLAND 21211

HERBERT A. MEYER
STATE GEOLOGIST

Division of Archeology

August 12, 1983

Mr. William F. Schneider
Bureau of Project Planning
State Highway Administration
707 North Calvert Street
Baltimore, Md. 21202

Dear Mr. Schneider:

On August 9,1983, Lori Frye and I conducted a pre-survey assessment of the Maryland Route 43 project in Baltimore County to determine the need for a preliminary archeological reconnaissance; indications of previous ground disturbance suggested that full-scale survey might be inappropriate in this case.

The results of our assessment indicated that the survey area was disturbed to an even greater extent than anticipated. Areas of documented prior disturbance in the proposed right-of-ways are shown by heavy shading on the attached map. The main cause of most of the disturbance is the extraction of sand and gravel from extensive tracts of land. Recent housing and commercial development (sometimes in areas already gravelled), powerline and sewerline installations, and natural erosion were other contributing factors. (Note that the attached map, dated 1974, shows only a portion of the areas actually gravelled and almost none of the recent housing and commercial developments.)

The overall archeological potential of the study area can be considered fairly low, with most prehistoric potential assigned to intact areas along Whitemarsh Run. Comparison of historic maps with modern maps indicated that known structures for the proposed right-of-way areas are either extant or totally destroyed (i.e., gravelled areas). Previous archeological surveys in the area (shown on the attached map with light shading) include McNett's 1978 survey of proposed Rossville Boulevard and three M/DOT transects; all failed to locate any archeological remains. Limited testing of several small undisturbed areas found along Whitemarsh Run during our examination of the area also failed to locate any archeological

resources.

Therefore, given the extensive prior disturbance in the study area, fairly low archeological potential, and the failure of previous surveys in the area to locate archeological sites, a preliminary archeological reconnaissance survey of the Maryland Route 43 project does not appear warranted. No further archeological study of this project is recommended.

Sincerely,

Dennis C. Curry
Archeologist

DCC:eal

cc: Louis Ege
Rita Suffness

Maryland Historical Trust

September 28, 1984

Mr. Louis H. Ege, Jr.
Acting Chief, Bureau of Project Planning
State Highway Administration
PO Box 717, 707 North Calvert Street
Baltimore, Maryland 21203-0717

RE: Maryland Route 43 Extended from
Vicinity of Harford Road to
Honeygo Boulevard
B 818-151-471
P.D.M.S. no. 032006

Dear Mr. Ege:

Thank you for your letter of September 5, 1984 regarding the above-referenced project.

We believe that the selected avoidance alternate for U. S. Route 1 will have no adverse effect on the Waldman House. Because this is a determination of no adverse effect you must request the comments of the Advisory Council. Please send your request to Mr. Ron Anzalone at the Council.

If you have any questions or comments, please call Kim Kimlin at 269-2438.

Sincerely,

George J. Andreve

George J. Andreve
Environmental Review Administrator

GJA/KEK/hec

cc: Ms. Rita Suffness
Mr. Ron Anzalone
Mr. Charles L. Wagandt
Mr. Paul McKean
Joe Kresslein
Ron Nixon

Response: Alternate 4 Modified has been selected. Demolition of the Waldman House by private developers occurred in December 1984.

Shaw House, 21 State Circle, Annapolis, Maryland 21401 (301)269-2212, 269-2438
Department of Economic and Community Development

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State of Maryland

OFFICE OF ENVIRONMENTAL PROGRAMS
DEPARTMENT OF HEALTH AND MENTAL HYGIENE
201 WEST PRESTON STREET • BALTIMORE, MARYLAND 21201 • AREA CODE 301 • 383- 3245
TTY FOR DEAF: Balto. Area 383-7555
D.C. Metro 565-0451
Adele Wilzack, R.N., M.S., Secretary
William M. Eichbaum, Assistant Secretary

April 4, 1984

Mr. Louis H. Ege, Jr., Chief
Environmental Management
Bureau of Project Planning (Room 310)
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

RE: Contract No. B818-151-471
Maryland Route 43 Extended
(Whitemarsh Boulevard)
West of U.S. Route 1
to I-95, and
U.S. Route 1 Improvements
(Belair Road) I-695 to
North of Silver Spring Road

Dear Mr. Ege:

We have reviewed the Draft Air Quality Analysis for the above subject project and have found that it is not inconsistent with the Administration's plans and objectives.

Thank you for the opportunity to review this analysis.

Sincerely,

Edward L. Carter, Chief
Air Quality Planning and
Data Systems
Air Management Administration

ELC:cw

VII
LIST OF PREPARERS

This Final Environmental Impact Statement was prepared by the Maryland Department of Transportation, State Highway Administration in consultation with the Federal Highway Administration. The following personnel were instrumental in the preparation of this document:

STATE HIGHWAY ADMINISTRATION

Bureau of Project Planning:

Mr. Ronald E. Moon	Project Manager
Ms. Cynthia D. Simpson	Chief, Environmental Management
Mr. Joseph R. Kresslein	Environmental Management

Bureau of Highway Statistics:

Mr. Robert Lambdin	Traffic Forecasting

CONSULTANT:

Mr. Ronald W. Rye	The Wilson T. Ballard Company

FEDERAL HIGHWAY ADMINISTRATION:

Mr. Paul Wettlaufer	Area Engineer
Ms. Kathleen O. Laffey	Environmental Specialist

VIII
APPENDICES

APPENDIX A - GLOSSARY OF TERMS

GLOSSARY OF TERMS

(These terms may appear either in the EIS or as noted on the drawings)

Arterial Highway	A highway primarily for thru-traffic, usually on a continuous route.
Aux. Lane	Auxiliary Lane The portion of roadway adjoining the traveled way for parking, speed change, or for other purposes supplementary to the thru-traffic movement.
A.D.T.	Average Daily Traffic The total volume of auto and truck traffic passing a given point in both directions during a given time period (greater than one day and less than one year) in whole days, divided by the number of days in that time period.
Control of Access	Full-Complete restriction of access on a thru facility except at interchanges. Grade separations for all crossings.
	Uncontrolled-Access control limited only to safe geometrics. All crossroads, driveways, etc. may have points of ingress or egress.
Design Hour Volume (DHV)	The percent of average daily traffic (ADT) generally accepted as the criterion used in the geometric design of rural and urban highways. Ideally the 30th highest hourly volume during a year, the DHV is commonly found to vary from 8% to 12% of the ADT.
Design Speed	A speed selection for purposes of design and correlation of those geometric features of a highway, such as curvature and sight distance, upon which safe operations is dependent.
Expressway	A divided arterial highway for thru-traffic with full or partial control of access and generally with grade separations at major highways.
Freeway	An expressway with full control of access, grade separations at all roadway crossings. Access is permitted only at interchanges.

Grade Separation

Bridge structure such as an underpass or overpass that vertically separates two or more intersecting roadways, thus permitting traffic to cross without interference.

Housing of Last Resort

A Maryland SHA program to rehouse people who are displaced by right of way acquisition for highway projects when the cost to do so exceeds the limits of the Uniform Relocation Act.

Interstate Freeway

A freeway primarily for thru-traffic with full interchanges for access. Interchange spacing is generally greater than that for a freeway.

Levels of Service

Levels of Service are a measure of the conditions under which a roadway operates as it accommodates various traffic volumes. Influencing factors include speed, travel time, traffic interruptions, maneuvering freedom, safety, driving comfort, economy, and, of course, the volume of traffic.

Levels of Service on expressways and freeways with uninterrupted flow conditions are ranked from A to F (best to worst) as follows:

Level A - free traffic flow, low volumes; high speeds.

Level B - stable traffic flow, some speed restrictions.

Level C - stable flow; increasing traffic volumes.

Level D - approaching unstable flow, heavy traffic volumes, decreasing speeds.

Level E - low speeds, high traffic volumes approaching roadway capacity; temporary delays.

Level F - forced traffic flow at low speeds; low volumes and high densitities; frequent delays.

For interrupted flow conditions, such as major highways and arterials with traffic signals, the following Levels of Service apply.

Level A - free flow, no delay at traffic signals.

Level B - occasional delays at traffic signals.

Level C - increasing volumes; moderate delays at traffic signals.

Level D - lower speeds; increasing volumes, frequent delays at traffic signals.

Level E - low speeds; high traffic volumes; signal backups almost to the previous light.

Level F - forced traffic flow; successive backups between signals.

Major Highway — An arterial highway with intersections at-grade and direct access to abutting property, and on which geometric deisgn and traffic control measures are used to expedite the safe movement of thru-traffic.

Median — That portion of a divided highway separating the travelled ways for traffic in opposite directions.

Initial - to be constructed initially.

Ultimate - the configuration subsequent to future construction.

R/W, R.O.W. — Right-of-Way (Line)

The outer limits inside which the State owns and maintains for a highway facility.

Section 4(f)	Section 4(f) of the Department of Transportation Act requires that publicly-owned land from a park, recreation area, wildlife and/or waterfowl refuge, or historic site of national, state or local significance can be used for Federal-Aid Highway projects only if there is no feasible and prudent alternative to its use, and if the project includes all possible planning to minimize harm to "4(f) lands".
Shoulder	That portion of a highway adjacent and parallel to the travelled roadway for the accommodations of stopped vehicles for emergency use and for laterial support. May or may not be fully paved.
Side Slopes	The slope of earth permissible in given locations, as a ratio of horizontal to vertical measurement. (2:1, 4:1, 6:1).
Wetlands	The term "wetlands" refers to those areas that are inundated by surface or groundwater with a frequency sufficient to support, and under normal circumstances, does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds.

APPENDIX B - SUMMARY OF RELOCATION ASSISTANCE PROGRAM

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Attachment for Environmental
Impact Documents
Revised February 18, 1981
Bureau of Relocation Assistance

"SUMMARY OF THE RELOCATION ASSISTANCE PROGRAM OF THE STATE HIGHWAY ADMINISTRATION OF MARYLAND"

All State Highway Administration projects must comply with the provisions of the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970" (Public Law 91-646) and/or the Annotated Code of Maryland, Real Property, Title 12, Subtitle 2, Sections 12-201 thru 12-212. The Maryland Department of Transportation, State Highway Administration, Bureau of Relocation Assistance, administers the Relocation Assistance Program in the State of Maryland.

The provisions of the Federal and State Law require the State Highway Administration to provide payments and services to persons displaced by a public project. The payments that are provided include replacement housing payments and/or moving costs. The maximum limits of the replacement housing payments are $15,000 for owner-occupants and $4,000 for tenant-occupants. In addition, but within the above limits, certain payments may be made for increased mortgage interest costs and/or incidental expenses. In order to receive these payments, the displaced person must occupy decent, safe and sanitary replacement housing. In addition to the replacement housing payments described above, there are also moving cost payments to persons, businesses, farms and non-profit organizations. Actual moving costs for residences include actual moving costs up to 50 miles or a schedule moving cost payment, including a dislocation allowance, up to $500.

The moving cost payments to businesses are broken down into several categories, which include actual moving expenses and payments "in lieu of" actual moving expenses. The owner of a displaced business is entitled to receive a payment for actual reasonable moving and related expenses in moving his business, or personal property; actual direct losses of tangible personal property; and actual reasonable expenses for searching for a replacement site.

The actual reasonable moving expenses may be paid for a move by a commercial mover or for a self-move. Generally, payments for the actual reasonable moving expenses are limited

to a 50 mile radius. In both cases, the expenses must be supported by receipted bills. An inventory of the items to be moved must be prepared, and estimates of the cost may be obtained. The owner may be paid an amount equal to the low bid or estimate. In some circumstances, the State may negotiate an amount not to exceed the lower of the two bids. The allowable expenses of a self-move may include amounts paid for equipment hired, the cost of using the business's vehicles or equipment, wages paid to persons who physically participate in the move, and the cost of the actual supervision of the move.

When personal property of a displaced business is of low value and high bulk, and the estimated cost of moving would be disproportionate in relation to the value, the State may negotiate for an amount not to exceed the difference between the cost of replacement and the amount that could be realized from the sale of the personal property.

In addition to the actual moving expenses mentioned above, the displaced business is entitled to receive a payment for the actual direct losses of tangible personal property that the business is entitled to relocate but elects not to move. These payments may only be made after an effort by the owner to sell the personal property involved. The costs of the sale are also reimbursable moving expenses. If the business is to be reestablished, and personal property is not moved but is replaced at the new location, the payment would be the lesser of the replacement costs minus the net proceeds of the sale or the estimated cost of moving the item. If the business is being discontinued or the item is not to be replaced in the reestablished business, the payment will be the lesser of the difference between the value of the item for continued use in place and the net proceeds of the sale or the estimated cost of moving the item.

If no offer is received for the personal property and the property is abandoned, the owner is entitled to receive the lesser of the value for continued use of the item in place or the estimated cost of moving the item and the reasonable expenses of the sale. When personal property is abandoned without an effort by the owner to dispose of the property by sale, the owner will not be entitled to moving expenses, or losses for the item involved.

The owner of a displaced business may be reimbursed for the actual reasonable expenses in searching for a replacement business up to $500. All expenses must be supported by receipted bills. Time spent in the actual search may be reimbursed on an hourly basis, but such rate may not exceed $10 per hour.

In lieu of the payments described above, the State may determine that the owner of a displaced business is eligible to receive a payment equal to the average annual net earnings of the business. Such payment shall not be less than $2,500 nor more than $10,000. In order to be entitled to this payment, the State must determine that the business cannot be relocated without a substantial loss of its existing patronage, the business is not part of a commercial enterprise having at least one other establishment in the same or similar business that is not being acquired, and the business contributes materially to the income of a displaced owner.

Considerations in the State's determination of loss of existing patronage are the type of business conducted by the displaced business and the nature of the clientele. The relative importance of the present and proposed locations to the displaced business, and the availability of suitable replacement sites are also factors.

In order to determine the amount of the "in lieu of" moving expenses payment, the average annual net earnings of the business is considered to be one-half of the net earnings before taxes, during the two taxable years immediately preceding the taxable year in which the business is relocated. If the two taxable years are not representative, the State, with approval of the Federal Highway Administration, may use another two-year period that would be more representative. Average annual net earnings include any compensation paid by the business to the owner, his spouse, or his dependents during the period. Should a business be in operation less than two years, but for twelve consecutive months during the two taxable years prior to the taxable year in which it is required to relocate, the owner of the business is eligible to receive the "in lieu of" payment. In all cases, the owner of the business must provide information to support its net earnings, such as income tax returns, for the tax years in question.

For displaced farms and non-profit organizations, actual reasonable moving costs generally up to 50 miles, actual direct losses of tangible personal property, and searching costs are paid. The "in lieu of" actual moving cost payments provide that the State may determine that a displaced farm may be paid a minimum of $2,500 to a maximum of $10,000 based upon the net income of the farm, provided that the farm has been discontinued or relocated. In some cases, payments "in lieu of" actual moving costs may be made to farm operations that are affected by a partial acquisition. A non-profit organization is eligible to receive "in lieu of" actual moving cost payments, in the amount of $2,500.

A more detailed explanation of the benefits and payments available to displaced persons, businesses, farms, and non-profit organizations is available in Relocation Brochures that will be distributed at the public hearings for this project and will also be given to displaced persons individually in the future.

In the event comparable replacement housing is not available to rehouse persons displaced by public projects or that available replacement housing is beyond their financial means, replacement "housing as a last resort" will be utilized to accomplish the rehousing. Detailed studies will be completed by the State Highway Administration and approved by the Federal Highway Administration before "housing as a last resort" could be utilized. "Housing as a last resort" could be provided to displaced persons in several different ways although not limited to the following:

1. An improved property can be purchased or leased.

2. Dwelling units can be rehabilitated and purchased or leased.

3. New dwelling units can be constructed.

4. State acquired dwellings can be relocated, rehabilitated, and purchased or leased.

Any of these methods could be utilized by the State Highway Administration and such housing would be made available to displaced persons. In addition to the above procedure, individual replacement housing payments can be increased beyond the statutory limits in order to allow a displaced person to purchase or rent a dwelling unit that is within his financial means.

The "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970" requires that the State Highway Administration shall not proceed with any phase of any project which will cause the relocation of any person, or proceed with any construction project until it has furnished satisfactory assurances that the above payments will be provided and that all displaced persons will be satisfactorily relocated to comparable decent, safe and sanitary housing within their financial means or that such housing is in place and has been made available to the displaced person.

APPENDIX C - DESIGN NOISE LEVELS AND LAND USE RELATIONSHIPS

NOISE ABATEMENT CRITERIA AND LAND USE RELATIONSHIPS
SPECIFIED IN FHPM 7-7-3

ACTIVITY CATEGORY	Leq(h)	L_{10} (h)	DESCRIPTION OF ACTIVITY CATEGORY
A	57 (Exterior)	60 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	70 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	75 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	--	--	Undeveloped lands.
E	52 (Interior)	55 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

APPENDIX D - BIBLIOGRAPHY

BIBLIOGRAPHY

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