

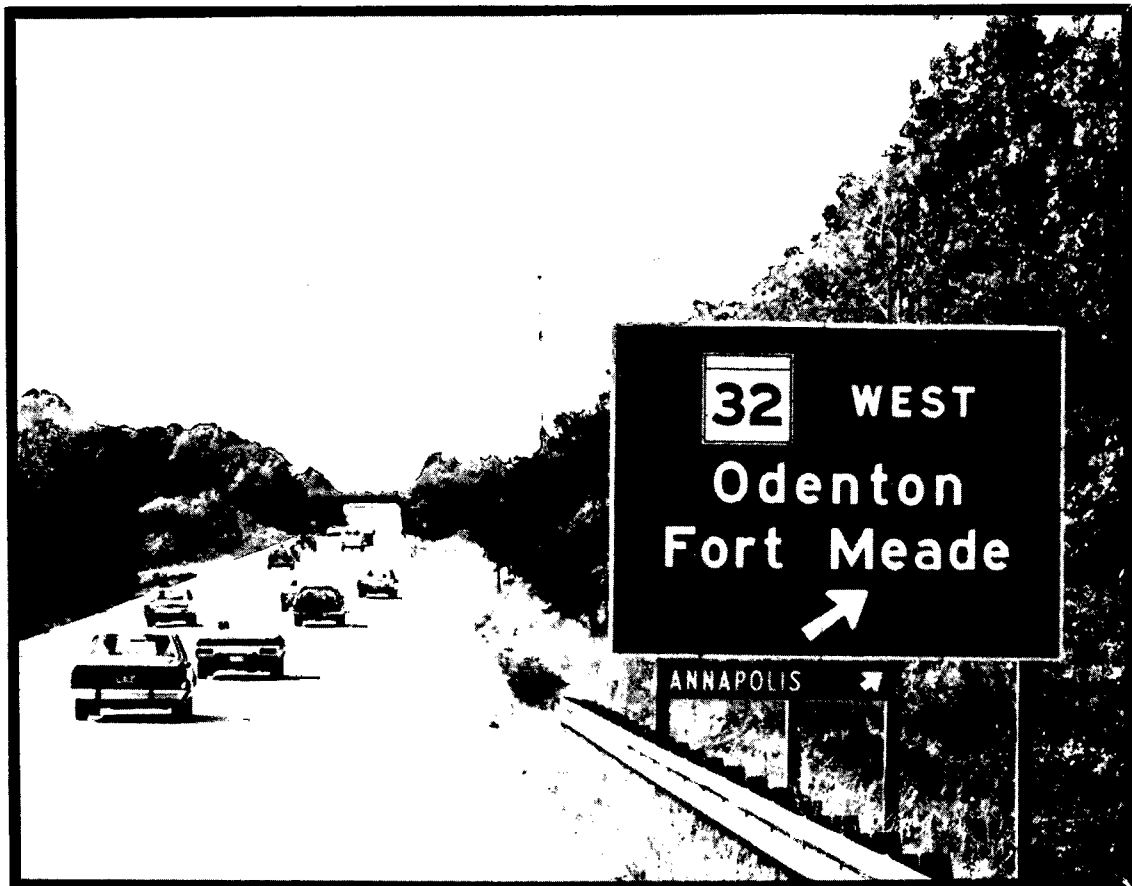
FINAL ENVIRONMENTAL IMPACT STATEMENT

SECTION 4(f) STATEMENT

Contract No. AW 295-000-070

F.A.P. No. FF 162-1(26)

Maryland Route 32 (Patuxent Freeway)
from Maryland Route 32 west of the
Howard/Anne Arundel County line to MD Rte. 3
in Anne Arundel County, Maryland



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

and
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

REGION III

MARYLAND ROUTE 32
(Patuxent Freeway)
From Maryland Route 32
West of the Howard/Anne Arundel County Line
To Maryland Route 3

FINAL ENVIRONMENTAL IMPACT STATEMENT/
SECTION 4(f) STATEMENT

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
AND

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

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Sept. 9, 1983

DATE

11-29-83

DATE

Hal Kassoff *nx*

For Maryland State Highway Administration

Vincent Cicetti

For Federal Highway Administration

The purpose of the project is to provide an improved regional east-west highway serving Anne Arundel and Howard Counties, as well as statewide traffic between Western Maryland and the Eastern Shore. It is consistent with local, county, and regional plans.

Environmental impacts associated with the selected alternate include right of way acquisition and the displacement of residences and businesses. There are minor floodplain and wetland involvements. Two stream realignments would be required. Proposed mitigation measures are described in the document.

SUMMARY

SUMMARY

1. ACTION

Federal Highway Administration
Administrative Action Environmental Statement

() Draft (X) Final
(X) Section 4(f) Statement

2. CONTACTS

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3. DESCRIPTION OF SELECTED ACTION

The selected action involves the construction of a full controlled access freeway (Maryland Route 32, Patuxent Freeway) in Anne Arundel County, Maryland, in the vicinity of Fort George G. Meade and the town of Odenton (refer to Figure I-1). Maryland Route 32 is intended to provide an improved regional east-west highway serving Anne Arundel and Howard Counties, as well as statewide traffic between Western Maryland and the Eastern Shore. It is consistent with all local, county, and regional plans.

The selected alternate, 2 Modified, would provide a freeway facility along new alignment from the Maryland Route 32 spur west of the Howard/Anne Arundel County Line to Maryland Route 3. Interchanges are proposed at several locations.

The following permits would be required prior to construction of the proposed action:

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

Maryland Department of Health and Mental Hygiene - Water
Quality Certificate

Maryland Department of Natural Resources - Waterway
Construction Permits

Maryland Department of Natural Resources - Sediment
Control Permit

4. ALTERNATES CONSIDERED

A preliminary set of alternates was reduced through a series of agency reviews and public meetings to two alternates studied in detail.

-Alternate 2 - This alternate proposed a full controlled access, four lane freeway facility (Patuxent Freeway) on new location from Maryland Route 32 west of the Howard/Anne Arundel County Line to Maryland Route 3; a distance of approximately 10.6 miles. Interchanges are provided at the service road west of the Howard/Anne Arundel County Line, Baltimore/Washington Parkway, Maryland Route 198/Mapes Road, Maryland Route 175, Maryland Route 170, and Burns Crossing Road.

-Alternate 2 Modified (Selected Alternate) - This alternate is similar to Alternate 2. While the Maryland State Highway Administration prefers Option C at the Baltimore/Washington Parkway interchange, the configuration will be determined as a cooperative design effort between Fort Meade, the National Security Agency, and the National Park Service. Access to existing Maryland Route 32 from the District of Columbia

Children's Center will be denied and alternative access will be provided as per an agreement with the D. C. government. A minor alignment shift was made to eliminate an exceedence of Federal Highway Administration Noise Abatement Criteria at Maryland Route 170. Alternate 2 will not be discussed further in this document because it is identical to Alternate 2 Modified except for the modification mentioned previously. This modification is not a substantial change from Alternate 2 as presented in the Draft Environmental Impact Statement.

-Alternate 3 (No-Build) - This alternate would make no additional improvements to existing facilities beyond those reasonably expected to be in place by the design year, 2010.

5. ENVIRONMENTAL CONSEQUENCES

Alternate 2 Modified, the selected alternate, would significantly benefit the transportation system in the Fort Meade/Odenton area by facilitating regional traffic and relieving congestion on existing roadways. The Patuxent Freeway would provide the final link in Maryland Route 32 from Howard County to Annapolis (via Interstate Route 97). It would provide the needed through movement for regional and statewide traffic and eliminate the use of the present circuitous route.

The selected alternate has been developed in accordance with the Anne Arundel County General Development Plan, the Fort George G. Meade Master Plan, and the Odenton Area Plan. The general

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alignment of Alternate 2 Modified is indicated in all these plans.

Alternate 2 Modified would require the displacement of 32 residences, some of which would require housing of last resort. A maximum of sixteen (16) businesses would be displaced. Several buildings on Fort Meade and the D. C. Children's Center properties would also be affected.

Alternate 3 would require no displacements.

Alternate 3 (No-Build) would have no additional impact on the natural environment. Alternate 2 Modified will require the conversion of prime farmland soils, woodlands, old field habitat, and wetlands to roadway surfaces and right of way. Although some floodplain acreage will be required, no significant impacts are expected to occur. The selected alternate will also require the realignment of a tributary to Picture Frame Branch, in the Severn Run watershed and a tributary to Rogue Harbor Branch on Fort Meade, in the Little Patuxent River Watershed. Appropriate sediment and erosion control measures of the Maryland State Highway Administration and the U.S. Department of Agriculture, Soil Conservation Service will be stringently applied to protect terrestrial and aquatic habitats.

Neither of the alternates would adversely affect air quality, and for most receptors analyzed, projected CO concentrations would be greater with the No-Build Alternate than Alternate 2 Modified. FHWA Noise Abatement Criteria will not be exceeded at any one site with the selected alternate. However, FHWA Noise Abatement Criteria would be exceeded at one (1) site with the

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No-Build alternate.

Consultation with U.S. Fish and Wildlife Service, Maryland Department of Natural Resources (DNR), Maryland Natural Heritage Program indicates the possible presence of two plant and one fish species in the study area which are considered endangered. Coordination with the U.S. Fish and Wildlife Service and DNR, Wildlife Administration indicates none of these species are currently included on State or Federal Threatened or Endangered Species lists. None of the habitats for these species will be adversely affected by the proposed action. Coordination will continue to ensure no adverse impacts occur to these species or their habitats.

The U.S. Department of Interior, Office of the Secretary, and the National Park Service, have concurred that there are no feasible and prudent alternatives to the proposed use of land from the Baltimore/Washington Parkway, and that all possible measures to minimize harm have been included in project planning.

		Alternate 2 Selected Alternate	Alternate 3 No-Build
Socio- Economic	Residential Displacements	32	0
	Business Displacement	16	0
	Access to Community Facilities	improve	decrease
Natural Environment	Prime Farmland Soils - Acres	61.4	0
	Stream Realignment - Linear Ft.	3300	0
	Stream Crossings	12	0
	Wetland - Acres	8.4	0
	Floodplain - Acres	14.5	0
	Woodland - Acres	226.8	0
	Old Field - Acres	77.3	0
Air Quality Impacts**		0	0
Noise Level Impacts+		0	1
Historic Sites Affected		0	0
Archeologic Sites Affected		0	0
Cost	Construction	\$91,875,000	0
	Right of Way	\$26,404,000	0
	Development	\$11,653,000	0
	Total	\$129,932,000	0

*Preferred Alternate
 **Sites Exceeding S/NAAQS
 +NSA's Exceeding
 Noise Abatement Criteria

MARYLAND ROUTE 32

SUMMARY OF IMPACTS

TABLE S-1

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I
PURPOSE
AND NEED

I. PURPOSE AND NEED

A. Project Location and Description

The Maryland Route 32 study area is located in the western portion of Anne Arundel County along the Baltimore/Washington Parkway between Baltimore and Washington, D. C. and is approximately 14 miles northwest of Annapolis (refer to Figure I-1).

The project begins at Maryland Route 32, just west of the Anne Arundel/Howard County line. The study area (Figure I-2) generally parallels existing Maryland Route 32 and the abandoned Chessie System Railroad (formerly C & O Railroad) lines through Fort George G. Meade, bypasses north of Odenton and follows existing Maryland Route 32 to Maryland Route 3.

Alternate 2 Modified (selected alternate) proposes the construction of a 4 lane divided freeway facility to accommodate projected traffic volumes for the design year 2010.

Maryland Route 32 will provide increased traffic capacity and provide an improved east-west highway system in the study area. Existing through traffic must use local roads through Fort George G. Meade and the congested area of Odenton. The proposed action will provide improved access to areas of Odenton which are planned for development and relieve traffic congestion by separating local and through traffic. The proposed action will also connect the section of Maryland Route 32 under construction immediately west of the study area and proposed Interstate Route 97 east of the project limits, which is currently being designed.

Maryland Route 32 will provide cross-regional movement

between northern Anne Arundel County and eastern Howard County as well as direct access for these developing areas to the major radial highways intersecting the Baltimore/Washington (Maryland Route 295) and Baltimore/Annapolis (Interstate Route 97) Corridors.

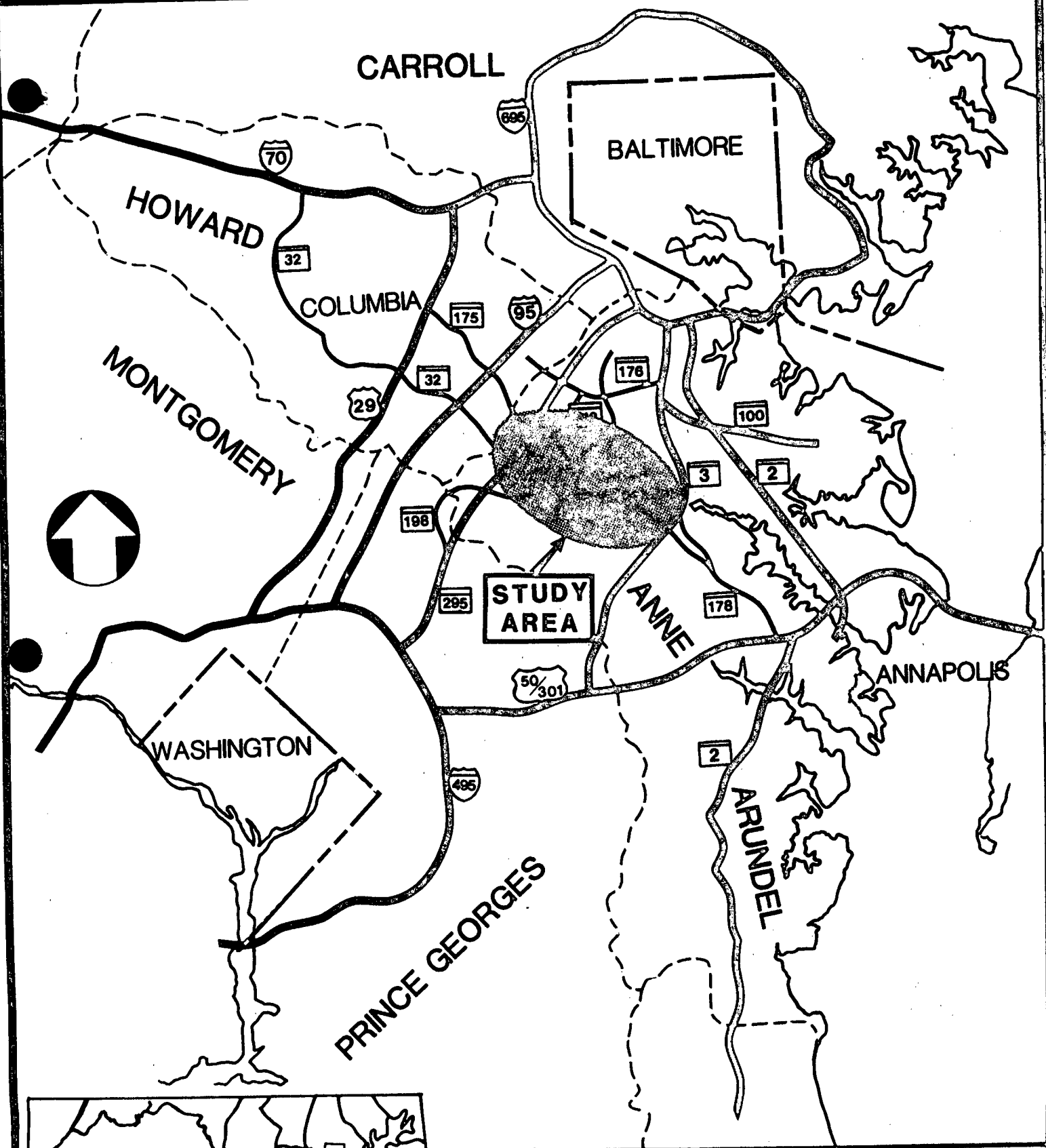
B. Need for the Project

1. Regional Growth and Development

The area of northern Anne Arundel and eastern Howard County to be served by Maryland Route 32 has been one of the fastest growing in the Baltimore Region in terms of population, employment, and automobile ownership, three prime determinants of travel.

Due to the rapid growth and development of the two areas, the amount of east-west travel, as measured by annual average daily traffic volumes on the existing circumferential facilities (Maryland Route 175, Maryland Route 32, and Maryland Route 176), has increased significantly faster than the amount of total regional travel. Between 1970 and 1975 average daily traffic volumes on the three circumferential facilities increased by 12,925, or 57.3 percent, climbing from 22,375 vehicles to 35,300. This increase in vehicular travel translates into an average annual rate of growth of 9.3 percent which is substantially higher than the observed regional rate of growth of 5.0 percent. It is also significant to note that the traffic volumes on the three facilities continued to increase in 1974 during the energy crisis while the regional volumes remained at 1973 levels.

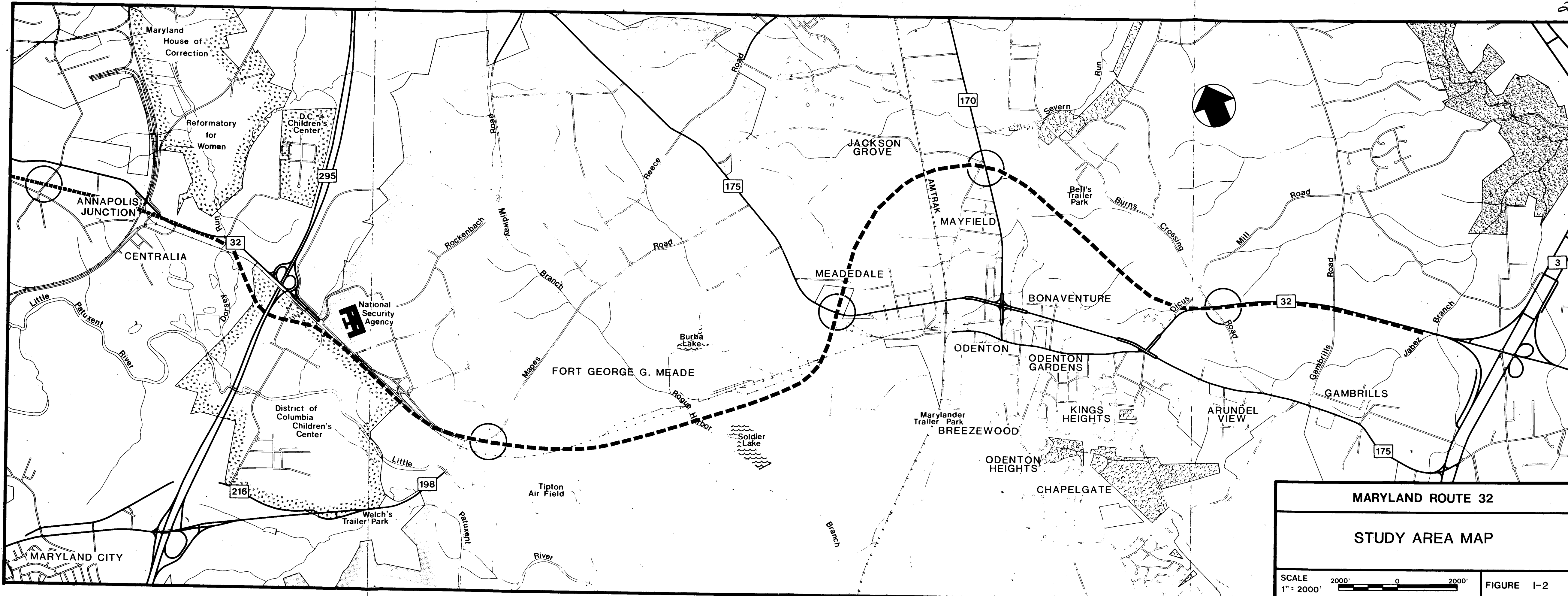
Recent projections by the Regional Planning Council



MARYLAND ROUTE 32

STUDY AREA LOCATION

FIGURE I-1



MARYLAND ROUTE 32

STUDY AREA MAP



FIGURE I-2

indicate that the two areas should experience slightly higher population, employment, and automobile ownership growth rates in the next twenty years. The population in northern Anne Arundel County is projected to reach 539,600 by 1995, a 66 percent increase over the present level, while the population of eastern Howard County is projected to grow to 247,000, a doubling of the present population. Employment and automobile ownership are projected to increase by 70 percent and 122 percent by 1995, respectively, in northern Anne Arundel County and by 162 percent and 309 percent in eastern Howard County. The primary reasons for these relatively large increases are that the areas are within easy commuting distance of both Baltimore and Washington, D. C., and they contain a large amount of vacant sewered land which is a prerequisite for higher urban development.

Based on these demographic and socio-economic projections, the Baltimore Region 3-C Process has forecasted the amount of east-west travel between Anne Arundel and Howard Counties should climb from the present level of 42,300 vehicles on an average day to 120,900 in 1995, an increase of 185.8 percent. This increase translates into an average annual rate of growth of 8.4 percent which means that the amount of east-west traffic on an average day is projected to grow by about 6,000 vehicles per year. The amount of east-west peak-period travel (4:30 - 6:30 p.m.) is projected to increase by 281 percent, rising from the 1975 level of 6,671 vehicles to 25,414 vehicles in 1995. On an annual basis, peak period travel will grow by about 940 vehicles or 6.9 percent which is slightly lower than the annual growth rate in the 1970 and 1975 time period.

Presently, traffic conditions along the existing east-west facilities are severely congested during the peak so additional traffic increases in the future will only aggravate the situation unless capacity improvements are implemented.

Maryland Route 32 will provide a controlled access highway to connect four other controlled-access facilities (U.S. Route 29, Interstate route 95, the Baltimore/Washington Parkway, and Interstate Route 97). This will increase the critically needed east-west capacity necessary for design year (2010) traffic volumes.

2. Traffic and Operating Conditions

a. Existing Facility

The existing highway network in the study area does not provide through movement of traffic between the intersection of Maryland Route 32 and Mapes Road, and the Maryland Routes 175 and 32 intersection.

Maryland Route 32 is a 5-lane urban roadway from Baltimore/Washington Parkway to Emory Road. It then splits into two 2-lane roadways to the Maryland Route 198/Mapes Road intersection. Maryland Route 32 does not exist between Mapes Road and Burns Crossing Road, east of Odenton. Through traffic must use Mapes Road through Fort Meade to Maryland Route 175. Mapes Road is a 2 lane roadway with no shoulders. A wider roadway is provided at various intersections to allow left turns.

Maryland Route 175 from Mapes Road to existing Maryland Route 32, near Burns Crossing Road, is primarily a 2-lane road with little or no shoulders. Left and right turn movements are provided at some intersections. Maryland Route 175

is being improved to a 5-lane urban roadway, with a continuous center left turn lane from Reese Road to approximately Fifth Street (See Figure II-13). The estimated date of completion for these improvements is October, 1983.

Existing Maryland Route 32 from Burns Crossing Road to Maryland Route 3 is a 2-lane roadway with 10 foot paved shoulders. Although two lanes were initially constructed in 1970, right of way was purchased and grading was done for an ultimate 4-lane divided facility.

b. Operating Conditions

The roadway system in the Fort Meade-Odenton area is already congested. Although traffic operations are acceptable, most segments will reach capacity by 1990 if no improvements are made. Average Daily Traffic (ADT) volumes are expected to more than double on most segments by 2010.

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

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Service E, volumes are at or near the capacity of the highway. Level of service F represents conditions of over capacity volumes in which there are operational breakdowns with forced flow.

Based on recent traffic data, the following roadway segments are operating at the indicated level of service:

Maryland Route 32 -- B/W Parkway to Mapes Road	C/D
Mapes Road -- Maryland Route 32 to Maryland Route 175	E
Maryland Route 175 -- B/W Parkway to Maryland Route 32	D
Maryland Route 32 -- Maryland Route 175 to Maryland Route 3	B/C

At the present rate, all the major roadways in the study area will operate at LOS F by 1990 unless improvements are made. The addition of new county roads to serve Odenton town center will compound the problem even with capacity improvements along Maryland Route 175. (Figures III-3, III-4).

An accident analysis was performed for the study areas major roadways. The following were included in the analysis:

- Maryland Route 198 - From Baltimore/Washington Parkway to Mapes Road
- Maryland Route 32 - From Baltimore/Washington Parkway to Mapes Road
- Maryland Route 175 - From Baltimore/Washington Parkway to Maryland Route 32

These highways experienced 1277 reported accidents from 1976 through 1980. This resulted in an accident rate of 537 accidents per one hundred million vehicle miles of travel (acc/100 MVM) which is significantly higher than the

statewide average of 416 acc/100 MVM for similar facilities under state maintenance.

Six of these accidents resulted in fatalities, a rate below statewide expectations. The cost to the public for all accidents on these highways was approximately \$2.6 million/100 MVM.

Closer inspection of the accident data reveals that 1091 of the 1277 accidents in the study area occurred on Maryland Route 175, between existing Maryland Route 32 and Maryland Route 295. The accident rate of 613 acc/100 MVM is the highest of all study area highways and is significantly higher than the statewide average. In addition, five of the six fatal accidents occurred along this section of Maryland Route 175.

Six High Accident Locations were identified for the study area and all were located on Maryland Route 175. These locations, and the years in which they qualified as High Accident Locations, are as follows:

High Accident Sections (HAS)

<u>Description</u>	<u>Log Miles</u>	<u>Year</u>
Maryland Route 175	4.50 - 5.00	1978
Maryland Route 175	5.00 - 5.50	1979
Maryland Route 175	7.00 - 7.50	1979

High Accident Intersections (HAI)

<u>Description</u>	<u>Year</u>
Maryland Route 175 @ Llewellyn Avenue	1978
Maryland Route 175 @ Mapes Road	1977, 1978
Maryland Route 175 @ Maryland Route 713	1976 - 1978

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Conditions with the projected traffic increases are expected to remain the same, at best. Further deterioration is more likely, forcing other highways in the roadway network to handle additional traffic. Increased congestion, delays, and continued high accident rates can be expected.

C. Planning Background

The General Development Plan for Anne Arundel County, Maryland (July, 1978) includes Maryland Route 32 as a proposed freeway in its Road Network and Classification Plan (Figure III-4). The Patuxent Freeway has been included in Anne Arundel County's Master Plans since 1967.

The Odenton and Environs (Summary Report, Anne Arundel County, 1971) report includes Maryland Route 32 (as the Patuxent Freeway) in its transportation plan. The Patuxent Freeway (Maryland Route 32) is also included in the Draft Overall Installation EIS Existing Activities and Conditions Fort George G. Meade, Maryland. The description includes improvement and extension of Maryland Route 32 through the central portion of Fort Meade and intersecting with Maryland Route 175 on the eastern boundary of the installation.

Project planning for the Maryland Route 32 was initiated in 1975. A Public Initiation Meeting was held on June 26, 1979 at Arundel Senior High School. This meeting informed interested citizens of the start of studies.

An alternates Public Meeting was held on January 16, 1980 to present the preliminary build alternates for public comment. A discussion of these alternates is included in Section II-A2.

Subsequent to the distribution of the Draft Environmental Impact Statement, a Location/Design Public Hearing for Maryland Route 32 was held on November 30, 1982 at Arundel 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 2 Modified by the Maryland State Highway Administration.

Once location and design approval is granted, the Maryland Route 32 project will proceed to detailed design. Funds for final design, and construction of certain portions of the Selected Alternate have been committed by Maryland State Highway Administration.

II
ALTERNATES

II. Alternates Including the Proposed Action

A. Preliminary Alternates

1. General

Maryland Route 32 is intended to provide increased traffic capacity and provide an improved east-west highway system in the study area. Increased development is expected in the vicinity of the study area and the proposed action is expected to accommodate this growth, as well as increasing regional traffic. An iterative process of reviews and public interaction as described in the Maryland Action Plan was used to reduce the number of alternates to the set presented at the Alternates Public Meeting. Subsequently, the alternates were further refined into the set studied in detail and presented in the Draft Environmental Impact Statement.

Several of the preliminary alternates lacked sufficient merit to warrant additional investigation. These alternates were not considered to be reasonable. The reasons for eliminating them are given below. The alternates chosen for detailed study are described in more detail in the following section.

All alternates considered during project planning dealt with alignment shifts in the western third of the project. Improvements to existing facilities were considered but were found not to be feasible due to significant impacts to abutting properties, including Fort Meade, the National Security Agency, and the D. C. Children's Center. The various constraints which did not allow for major adjustments in the alignment of the eastern two-thirds of the project are discussed below.

A shift to the north in the Fort Meade area would adversely affect military facilities and activities, and an

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alignment south of the proposed action would have severe impacts to forested land and Soldier Lake, and would encroach onto firing ranges. The corridor the selected alternate occupies has also been included in the Fort Meade Master Plan.

Development of Odenton and the surrounding area severely restricts where a major controlled-access highway can be located. Major residential areas and local parkland south of Maryland Route 175 and 32 preclude an alignment in that area without major socio-economic and parkland impacts. Development in this area has proceeded in accordance with the Anne Arundel County General Development Plan and the Odenton and Environs Master Plan, which place the proposed Patuxent Freeway in the location of the Selected Alternate. Residential and commercial development in Odenton proper and along Maryland Route 175 would suffer severe adverse affects if a controlled access highway were built along existing location.

The only reasonable prudent and feasible alternative for the proposed action in the eastern two-thirds of the project has been indicated in all area master plans, the Draft Environmental Impact Statement, the Section 4(f) Evaluation and in this document as the Selected Alternate. The alignment minimizes impacts to facilities and activities on Fort Meade, avoids the more heavily developed areas in the vicinity of Odenton, and uses the alignment of existing Maryland Route 32 as much as possible on the eastern end of the project. Any other alignment would severely impact the areas mentioned above.

TSM Alternate: Improvements to existing facilities and Transportation Systems Management (TSM) were not considered adequate to provide an important link in the existing highway system. Current TSM strategies available would not satisfy

projected traffic increases nor improve safety deficiencies of the existing roadway. Alternates considered in the western section of the project were those in conformance with the Maryland Department of Transportation's Systems Planning Report, and master plans for Anne Arundel County, the Odenton area, and Fort Meade.

Alternate 2A (Figure II-2), which used the existing alignment of Maryland Route 32 between the Baltimore/ Washington Parkway and Maryland Route 198 includes two interchanges providing direct access onto and east of the National Security Agency (refer to Figure III-1). This alternate was found to be unreasonable because inadequate spacing was provided between interchanges at the Baltimore/Washington Parkway, Maryland Route 198, and the two entrances to NSA to allow for adequate traffic operations to occur.

Alternate 3 (Figure II-3) provided for all movements into and out of the National Security Agency and Fort Meade for Maryland Route 32 to occur at the Maryland Route 32/ Maryland Route 198 interchange. Traffic would then access NSA from a parallel service road on the north side of Maryland Route 32. This alternate was found to be unreasonable because the extremely large volumes of traffic forecast to be generated by NSA and Fort Meade could not be handled in one interchange at the same locations as the Maryland Route 198 interchange. Alternate 3 would also have resulted in significant adverse travel time for a majority trips destined to the National Security Agency.

Alternate 4 (Figure II-4) also provided for all access to the National Security Agency and Fort Meade to be provided via the Maryland Route 32/Maryland Route 198 interchange.

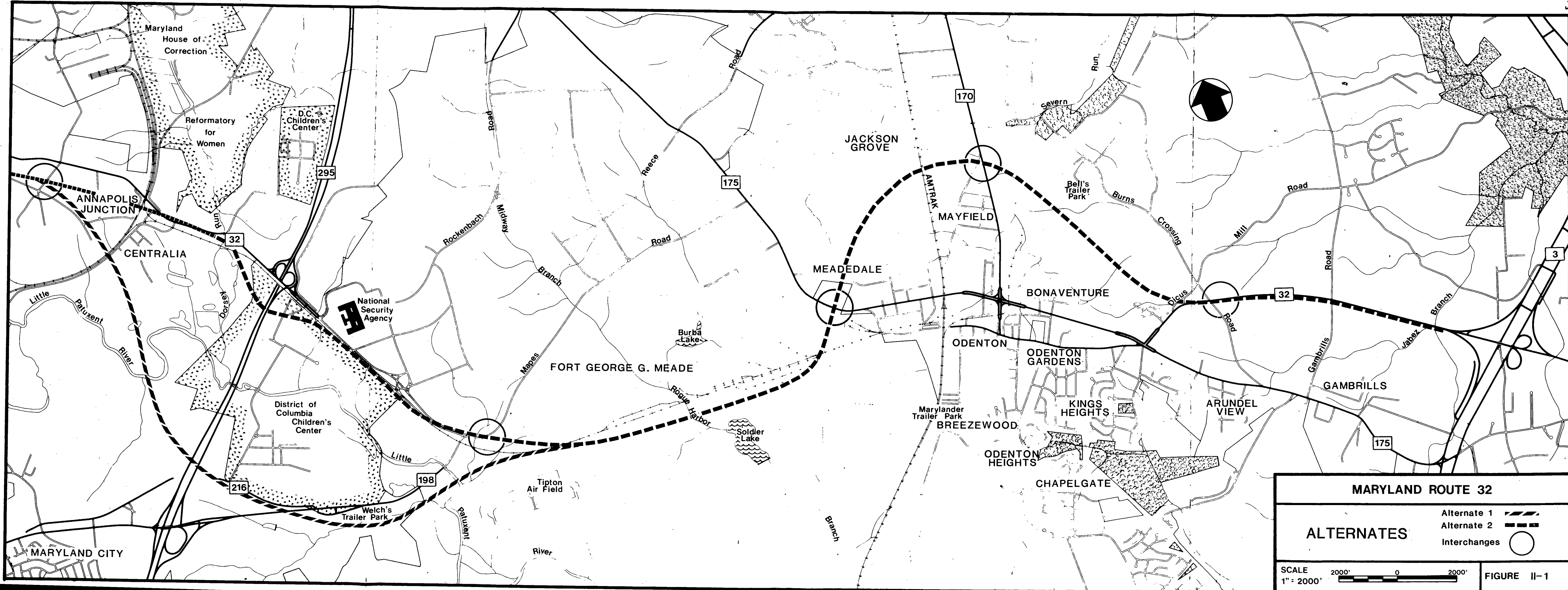
This alternate suffered from the same problems as Alternate 3 in terms of inadequate capacity in the Maryland Route 32/Maryland Route 198 interchange. Inadequate capacity was also provided at several at-grade intersections which NSA and Fort Meade traffic would be funneled through.

Alternate 5 (Figure II-5) provided for the main-line of Maryland Route 32 to follow the alignment of the Baltimore/Washington Parkway between the existing Maryland Route 32 interchange and the Maryland Route 198 interchange and then follow Maryland Route 198 east to Mapes Road. This alternate was dropped from further consideration because of inadequate capacity along the Baltimore/Washington Parkway and in the Parkway interchanges to carry both Parkway and Maryland Route 32 traffic.

Alternate 6 (Figure II-6) provided for a depressed section along the existing alignment with interchanges and service roads serving National Security Agency traffic from Maryland Route 32. This alternate was dropped from further consideration because of inadequate spacing available to accommodate weaving movements between interchanges and inadequate capacity on the ramps of the interchanges securing NSA.

2. Alternates Presented at the Alternates Public Meeting

*Alternate 1 - was proposed as a 4-lane freeway with full control of access. Alternate 1 began at the Howard/Anne Arundel County line and headed southerly through the Little Patuxent River floodplain and crossed over the Baltimore/Washington Parkway (Maryland Route 295) approximately 2,000 feet north of the Maryland Route 198/295 interchange. It continued



MARYLAND ROUTE 32	
ALTERNATES	Alternate 1
	Alternate 2
	Interchanges
SCALE 1" = 2000'	
FIGURE II-1	

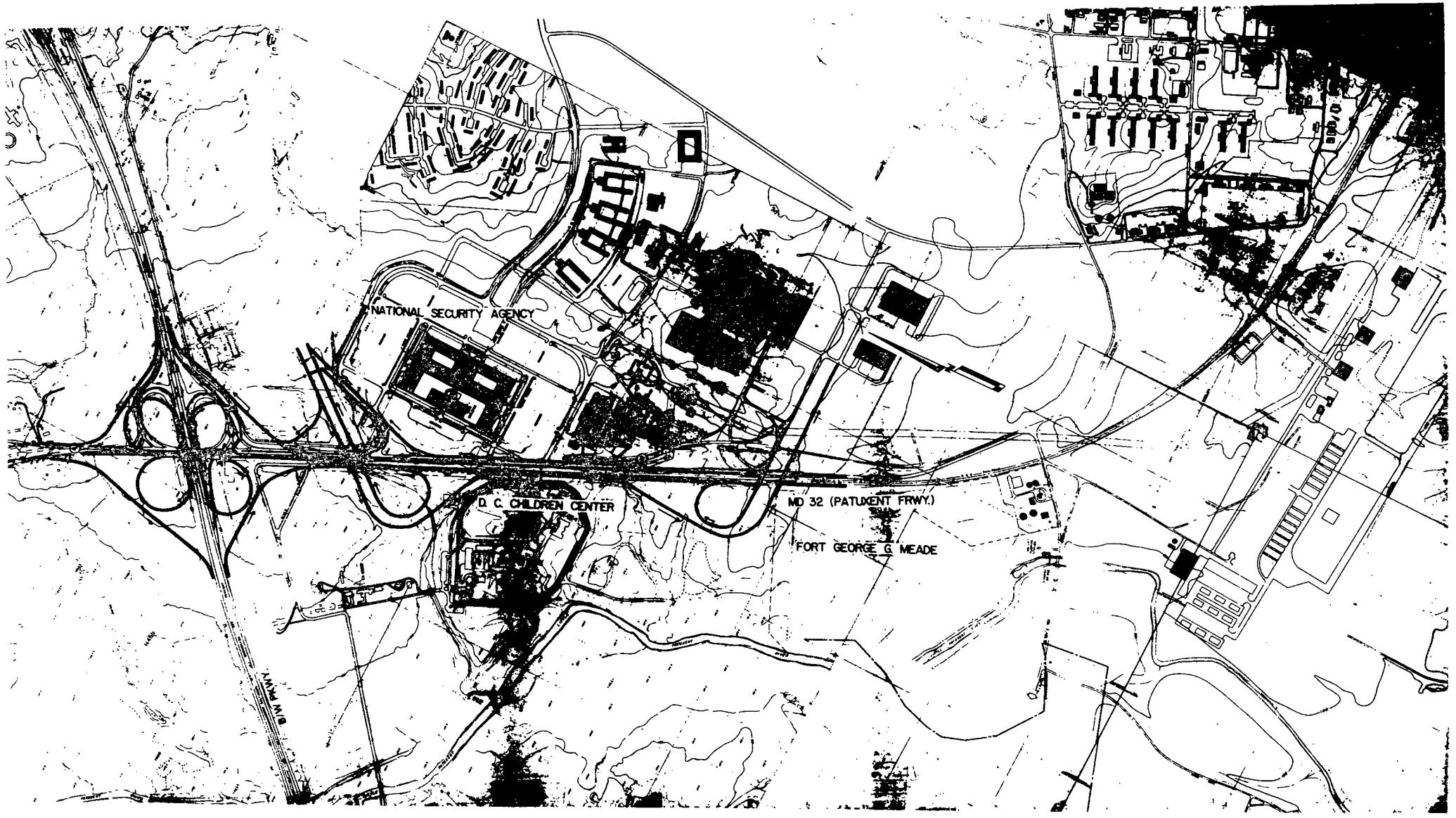


FIG. I-2

ALTERNATE 2-A

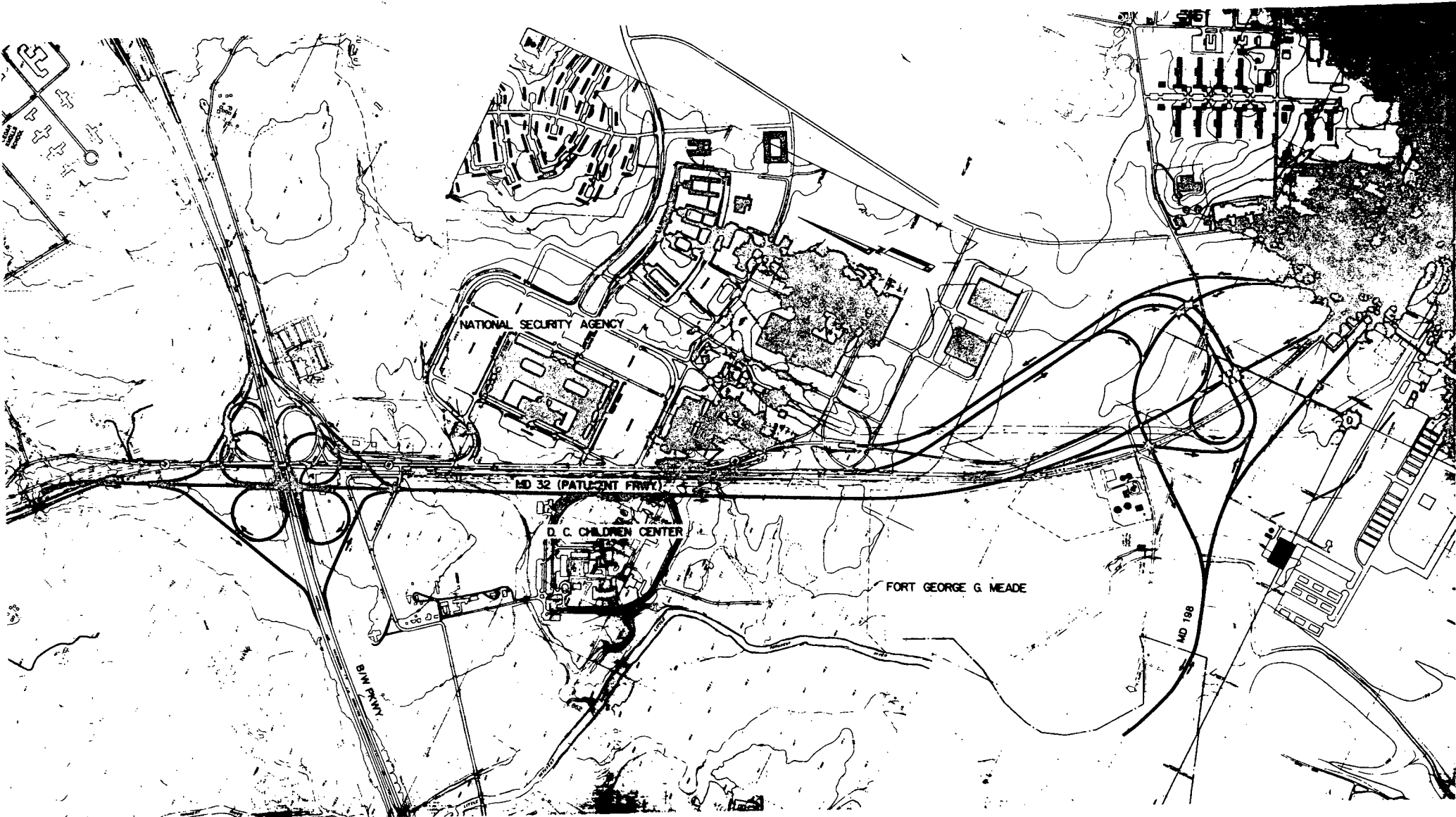


FIG. I-3

ALTERNATE 3



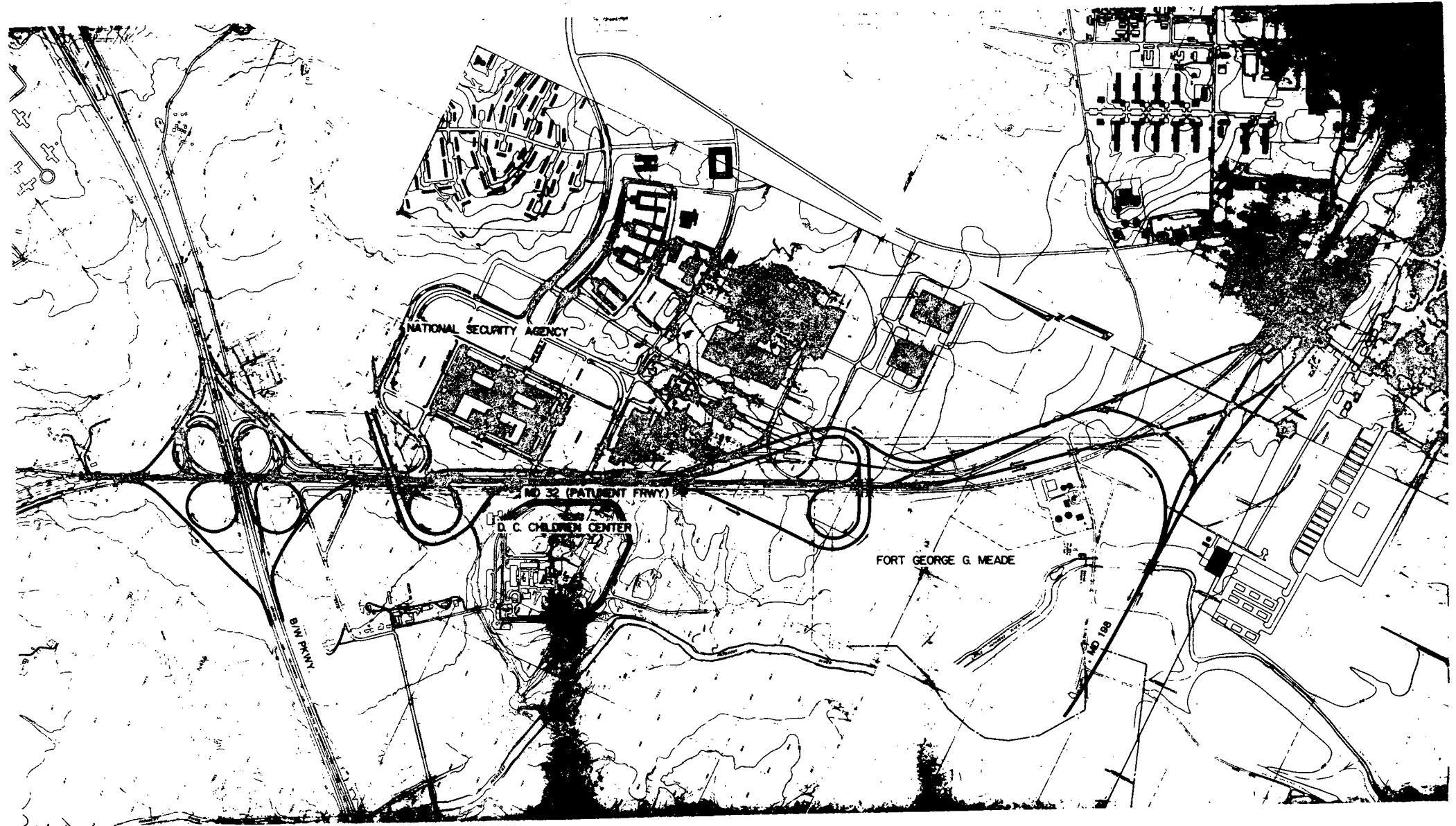
FIG. II-4

ALTERNATE 4

37



ALTERNATE 5



across and south of Maryland Route 198 in an easterly direction. It then tied into Alternate 2 near Tipton Airfield approximately 3,500 feet from the Maryland Route 198/ Mapes Road intersection. From this point, the alignment was the same as that of Alternate 2, the Preferred Alternate to Maryland Route 3. Interchange improvements or new interchanges were proposed at the existing Baltimore/Washington Parkway/ Maryland Route 32, Maryland Route 198, Mapes Road, Maryland Route 175, Maryland Route 170, and Burns Crossing Road. Alternate 1 was found to have several severe drawbacks which made it significantly less attractive than the preferred alternative. Due to the proximity of the Maryland Route 32 crossing of the Baltimore/Washington Parkway with the Maryland Route 198/Parkway interchange it is unreasonable to provide an interchange between the Baltimore/Washington Parkway and Maryland Route 32. Thus, traffic desiring to travel between the Baltimore/Washington Parkway and Maryland Route 32 would have to do so at either the existing interchange with Maryland Route 32 or at the Maryland Route 198 interchange. Maryland Route 32 under this alternate would not directly serve the major trip generator in the area, the National Security Agency. It would force through traffic to travel over two (2) miles further than it would have to under an alignment using the existing alignment of Maryland Route 32. It would involve two (2) crossings of the floodplain of the Middle Patuxent River. Under an alignment which avoids division of existing communities, these crossings would be 3,200 feet and 2,400 feet in length. The former crossing could be reduced to 1,100 feet in length if the alignment were shifted but an existing community west of the

Baltimore/Washington Parkway would be divided. An alternate which used the alignment runs for Alternate 1 would cost approximately \$30 million more than the preferred alternate if the bridge length crossing the floodplain could be kept to that which is minimally required for hydraulic purposes. If the bridges had to be constructed to span the floodplain an alternate along this alignment would cost approximately \$70 million more than the preferred alternative. Thus, Alternate 1 was not considered to be a reasonable alternate and was dropped from further detailed analysis primarily due to traffic service, floodplain, and cost considerations. 4)

*Alternate 1-A - was a modification of Alternate 1 which included a new interchange at the Baltimore/Washington Parkway instead of an overpass. The existing interchange at Maryland Route 198 and the Baltimore/Washington Parkway would be removed and replaced by an overpass. This alternate was also dropped from further study for the same reasons as Alternate 1.

*Alternate 2 - was retained for detailed study and is described in the following section.

*Alternate 3 - The No-Build includes the existing and proposed transportation facilities expected to be completed by 2010. This alternate was used as a comparison base for all other alternates. Many of the proposed facilities included in the no-build network are under independent study, and their assumed configuration is based on currently favored design/location alternates.

B. Alternates For Detailed Study

Two alternates were developed for detailed study from the preliminary concepts presented at the Alternates Public Meeting. They retain the numerical designations based on those concepts.

Alternate 2 Modified - the selected alternate, Maryland Route 32 on new alignment (Patuxent Freeway) with optional interchanges at Baltimore/Washington Parkway and Maryland Route 198/Mapes Road.

Alternate 3 - No-Build

1. Alternate 2 Modified (the selected alternate) -

This alternate consists of a fully controlled-access freeway (Patuxent Freeway) on new location as shown in Figures II-11 through II-15. The typical section (as shown in Figure II-10) would consist of two (2) twenty-four (24) feet roadways, separated by a fifty-four (54) feet wide median, with ten (10) feet wide outside shoulders, and safety grading. This would be contained within 300 feet of right of way. This section is significantly reduced in the vicinity of NSA and the D. C. Children's Center, as indicated on Figure II-11. The western terminus of this alignment begins at the Maryland Route 32 spur after it crosses Dorsey Run, approximately 2,400 feet west of the Baltimore/Washington Parkway/Maryland Route 32 interchange. The roadway crosses over the Baltimore/Washington Parkway interchange

and would lie between existing Maryland Route 32 and the District of Columbia Childrens Center. Severe space constraints between the National Security Agency and the D. C. Children's Center necessitate a reduction of the typical section and right of way in that area as shown in Figure II-10. Three interchange options were presented at the Location/Design Public Hearing and in the Draft Environmental Impact Statement. The interchange options at the Baltimore/Washington Parkway differ only in the northeast and southeast quadrant. Option A (Figure II-7) would include expansion of both ramps, the relocation of the parking lot, and entrance to the Colony 7 Motel, and modification of the westernmost entrance to the National Security Agency. Option B (Figure II-8) would provide no improvements in the northeast quadrant. Option C (Preferred by the State Highway Administration; Figure II-9) would involve further expansion of ramps, taking the motel, but provide access to the adjoining property via a service road to Maryland Route 175. The impacts of Option C have been included in this document for comparison purposes. It has the greatest impacts, but would provide better traffic service. The final configuration will be determined in the future pending the completion of detailed studies under a cooperative effort by the National Park Service, Fort Meade, and the National Security Agency due to the complexity of concerns with the Baltimore/Washington Interchange at existing Maryland Route 32. Connections to the existing facilities will be developed as shown in Figure IV-5 as interim improvements. These connections are compatible with all the interchange options under consideration. In accordance with 23 USC, the Final Section 4(f) Statement

includes the completion of relocated Maryland Route 32 and the interim connections. The final interchange configuration and funding may require further Federal actions by the agencies involved.

Any interchange configuration at the Baltimore/Washington Parkway will not include access to Maryland Route 32 from River Road and the D. C. Children's Center. Improved access will be provided to Maryland Route 198 via River Road as per an agreement between the Maryland State Highway Administration (SHA) and the D. C. Children's Center.

Approximately 2,600 feet west of the existing Maryland Route 198/Mapes Road intersection, the alignment enters Fort Meade Property. A modified cloverleaf interchange would provide all movements at Maryland Route 198 (Figure II-12).

The roadway then parallels the Chessie System (Baltimore and Ohio) Railroad approximately 325 feet to the south. A modified cloverleaf interchange would be constructed at Maryland Route 175 near Meadedale (Figure II-13).

The alignment turns northeast and crosses over the Amtrak railroad and curves around the Mayfield community. A diamond interchange (Figures II-13 & 14) is proposed at Maryland Route 170. The roadway would continue southeasterly to tie-in to existing Maryland Route 32 near Dicus Mill Road. A diamond interchange is proposed at Burns Crossing Road (Figure II-14). The proposed improvements would dualize existing Maryland Route 32 within existing right of way to the Maryland Route 3 interchange (Figure II-15). Improvements to this interchange are included in the Interstate 97 project.

In addition to the selected alternate on new location, a diamond interchange is proposed 1,500 feet west of the Howard/Anne Arundel County line on the section of Maryland Route 32 which is under construction. Changes in access to existing Maryland Route 32 resulting from construction of the selected alternate would necessitate the addition of this interchange. The exact location of the interchange will be contingent on current Howard County studies of the relocation of Dorsey Run Road.

The vertical alignment begins at the proposed crossing over Dorsey Run. The mainline passes under the proposed ramp for NSA traffic using existing Maryland Route 32, then over the Baltimore/Washington Parkway. It runs at-grade until an overpass at the Maryland Route 198 interchange, two service roads pass over on Fort Meade, goes over Maryland Route 175, Amtrak, Maryland Route 170, and Burns Crossing Road. Gambrills Road will overpass the proposed Patuxent Freeway.

Design criteria for the selected alternate are listed below:

Design Speed -- 70 mph

Maximum degree of curvature (horizontal) -- 4 degrees

Maximum percent of grade (vertical) -- 4.3 degrees

Control of access -- full

Project costs for Alternate 2, with the preferred interchange option are listed below:

	<u>Option C</u>
Development	\$11,653,000
Right of Way	\$26,404,000
Construction	\$91,875,000
Total	\$129,932,000

2. Alternate 3 - No-Build

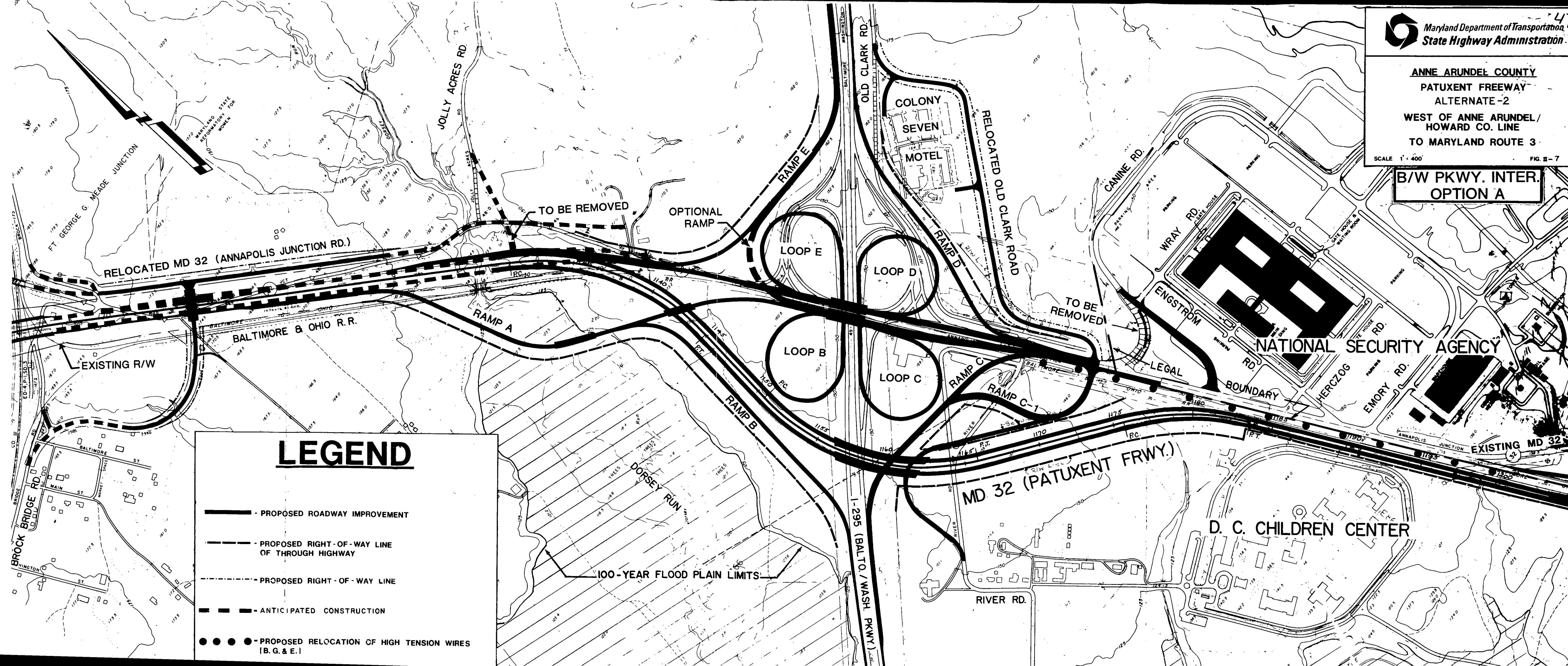
This alternate includes all existing and proposed transportation facilities which could be expected to be constructed prior to the design year (2010). It does not include projects which would be implemented as a direct result of this study. Two versions of the no-build network were identified - for the analysis years 1990 (year of completion) and 2010 (design year). Proposed projects included in the no-build network are listed below:

- *Interstate 97 - new freeway facility along existing Maryland Route 3 and along existing Maryland Route 32 east of Maryland Route 3.
- *Maryland Route 32 - new highway facility west of Baltimore/Washington Parkway.
- *Maryland Route 198 - capacity improvements.
- *Maryland Route 175 - capacity improvements.

ANNE ARUNDEL COUNTY
PATUXENT FREEWAY
ALTERNATE-2
WEST OF ANNE ARUNDEL /
HOWARD CO. LINE
TO MARYLAND ROUTE 3

SCALE 1" = 400' FIG. II - 7

B/W PKWY. INTER.
OPTION A



LEGEND

- PROPOSED ROADWAY IMPROVEMENT
- PROPOSED RIGHT-OF-WAY LINE OF THROUGH HIGHWAY
- PROPOSED RIGHT-OF-WAY LINE
- ANTICIPATED CONSTRUCTION
- PROPOSED RELOCATION OF HIGH TENSION WIRES (B.G. & E.)

100-YEAR FLOOD PLAIN LIMITS

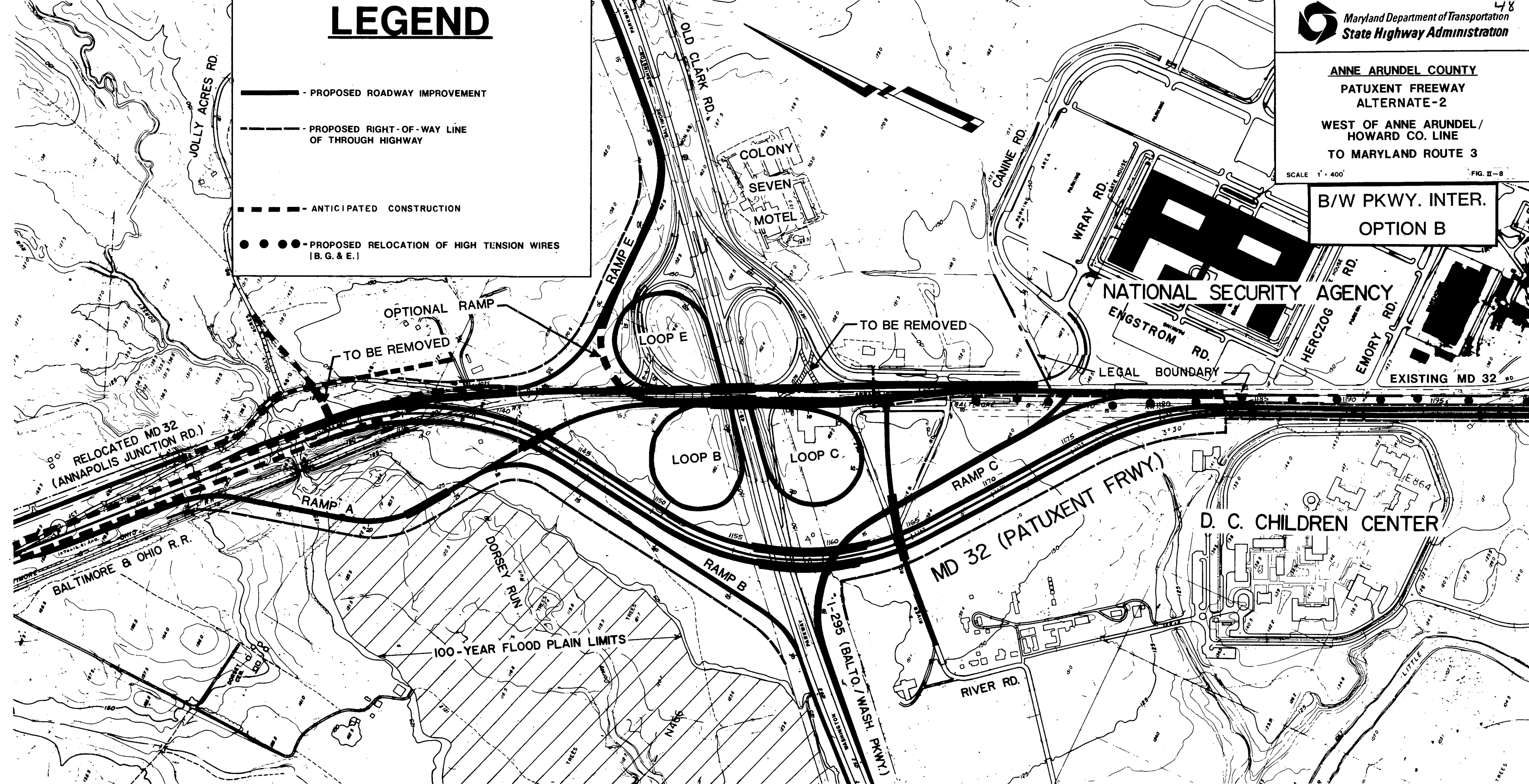
LEGEND

- PROPOSED ROADWAY IMPROVEMENT
- PROPOSED RIGHT-OF-WAY LINE OF THROUGH HIGHWAY
- ANTICIPATED CONSTRUCTION
- ● ● ● - PROPOSED RELOCATION OF HIGH TENSION WIRES (B.G. & E.)

ANNE ARUNDEL COUNTY
PATUXENT FREEWAY
ALTERNATE-2
WEST OF ANNE ARUNDEL/
HOWARD CO. LINE
TO MARYLAND ROUTE 3

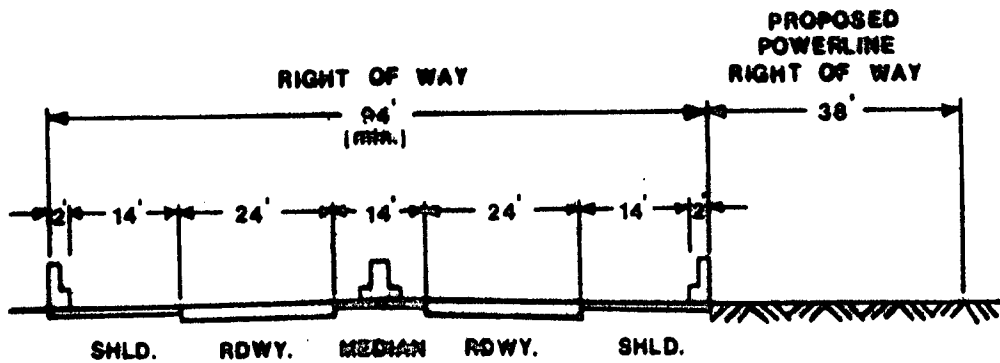
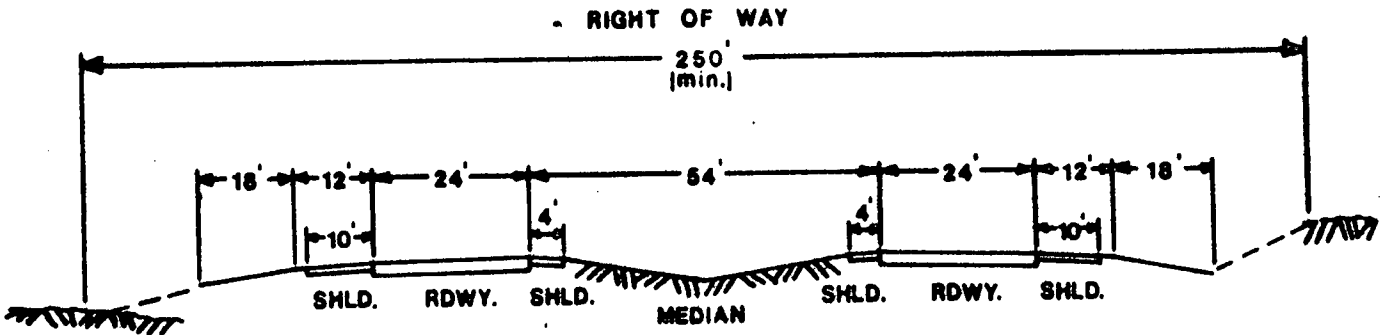
SCALE 1" = 400' FIG. II-8

B/W PKWY. INTER.
OPTION B



MAP

PROPOSED TYPICAL SECTIONS MD 32 (PATUXENT FREEWAY) MAIN LINE



STA. 1183 + 50 TO STA. 1217 + 50

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

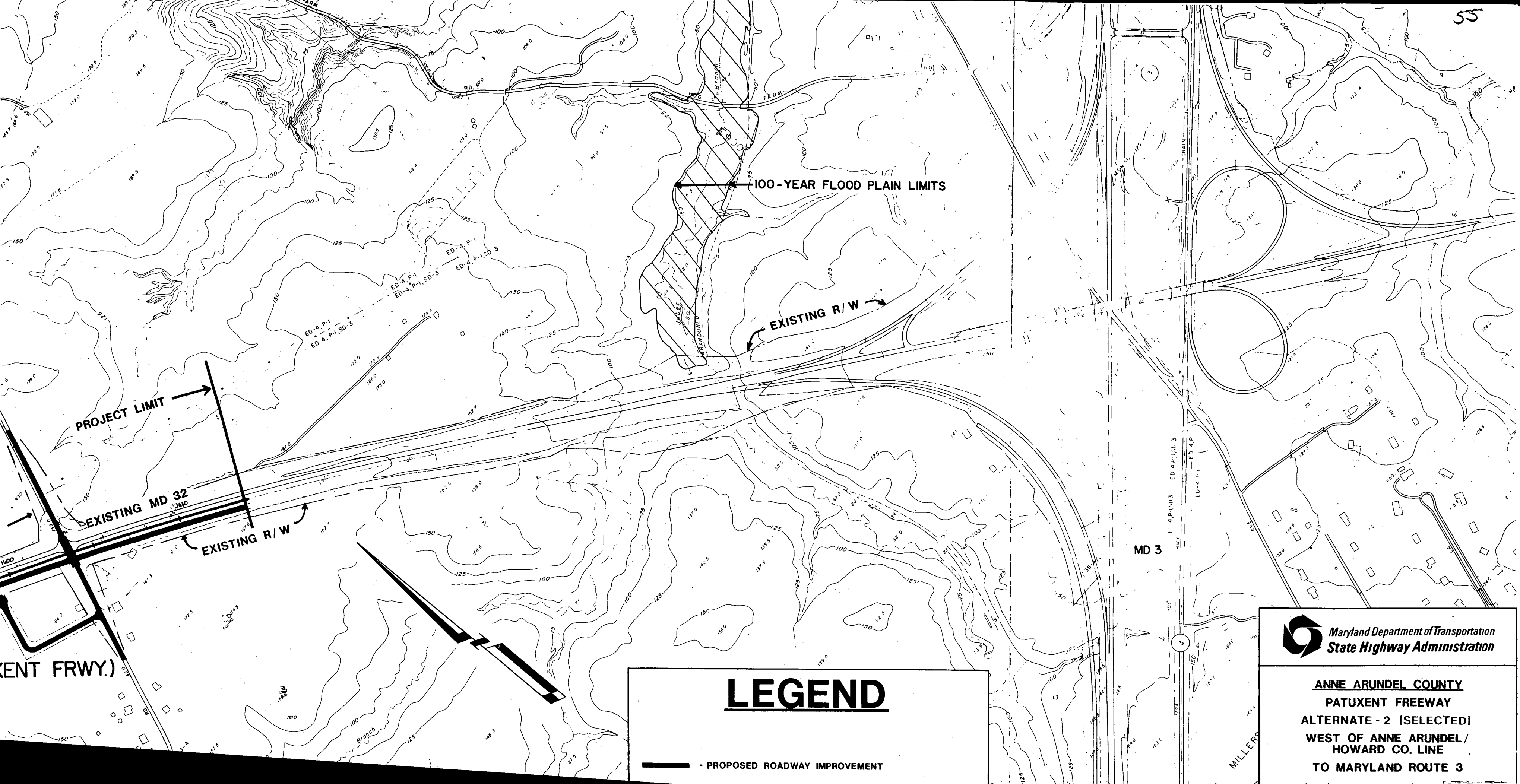
NOT TO SCALE

MAP

MAP

MAP

MAP



LEGEND

— - PROPOSED ROADWAY IMPROVEMENT



**ANNE ARUNDEL COUNTY
PATUXENT FREEWAY
ALTERNATE - 2 (SELECTED)
WEST OF ANNE ARUNDEL/
HOWARD CO. LINE
TO MARYLAND ROUTE 3**

**III
AFFECTED
ENVIRONMENT**

III. AFFECTED ENVIRONMENT

A. Social, Economic, and Land Use

1. Social Environment

a. Demographics

Anne Arundel County has grown from a rural county in the 1950's to an urbanized county in the 1980's, experiencing a significantly faster growth rate than surrounding metropolitan areas.

Odenton, the only major community in the study area, would also grow as Crofton exhausts the area of planned sewer service.

As indicated in The Land and Water Use Plan Section, General Development Plan-Anne Arundel County, adopted July 1978, and The Anne Arundel County Detailed Development Plan-Odenton Area, August, 1971, rail access and proximity to Baltimore/Washington International Airport makes Odenton a key location for a new county growth center. The Odenton planning area includes a 58 square mile (37,204 acres) area and includes Fort George G. Meade, as well as the communities of Odenton, and parts of Severn and Ridgeway.

According to officials at Fort Meade, the daytime population approaches 13,500. Approximately 3,500 civilians and 10,000 military personnel are employed at the installation, exclusive of NSA. Housing facilities on base include 3,128 family housing units, 225 spaces in bachelor officer quarters, 5,200 spaces in bachelor enlisted quarters, and a 54-room guest house. The nighttime population on base is substantially less than the daytime population.

During 1970-1975, Fort Meade's population decreased by

1.9 percent However, during 1970-1980, Fort Meade and Odenton experienced a population increase of 31.5 percent. The resident population at Fort Meade is limited by the availability of on-post housing units while new housing has been constructed outside the reservation area to accommodate the dramatic increase in population of the surrounding three county area (Howard County, Anne Arundel County, Prince George's County).

While the resident population of Fort Meade has remained relatively constant since 1970, there has been a steady increase in neighboring Anne Arundel and Howard Counties. During the growth of Anne Arundel County, the population in Odenton increased from 5,989 in 1970 to 15,366 in 1980, a 156.6 percent increase. The number of housing units in Odenton increased by 176.9 percent during that same time period.

Odenton, the surrounding area of Gambrills, and parts of Severn and Ridgeway are under increasing development pressures from Baltimore and Washington, as well as from the presence of Fort Meade, and the substantial industrial and federal employment located in the area.

b. Communities

The project area is generally rural in nature, with a number of smaller communities clustered in the Odenton area. These areas are identified on the Environmental Map (Figure III 1). Most of these subdivisions consist primarily of single-family dwellings, although there are several multiple-dwelling units (townhouses and apartments) in the study area.

c. Income

Median family incomes in 1981 for Anne Arundel County (\$21,612), Howard County (\$27,522), and Prince George's County (\$27,140) are substantially higher than the Fort Meade military income. The military incomes do not reflect non-monetary benefits (e.g., health care, housing allowances, and life insurance). When these benefits are collectively considered, they tend to reduce the absolute differences in purchasing power between military and civilian income levels.

d. Minority Communities

There are no known minority communities within the project area.

2. Community Facilities

a. Schools

The Anne Arundel County School system has eleven (11) schools throughout the study area. Six of these are in Fort Meade and three are on the grounds of the District of Columbia Childrens Center. The remaining schools are in or near Odenton. The locations of these schools are indicated on Figure III-1.

The Anne Arundel County School system is currently operating above capacity. All the Fort Meade schools except Meade Senior High School have exceeded capacity enrollment.

b. Law Enforcement

The police department at Fort Meade consists of the Police Services Branch of the Provost Marshal Office and the Criminal Investigation Division and is located at base head-

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quarters near Burba Lake. Odenton and the surrounding subdivisions are serviced by the Anne Arundel County Police whose nearest headquarters and station is in Millersville, Maryland. The county is planning the construction of a new police station near the proposed Maryland Routes 32/175 interchange.

c. Emergency Services

Emergency fire and medical service is provided by the Anne Arundel County Fire Department. A station is located in Odenton and is indicated on the Environmental Map (Figure III-1).

d. Medical Facilities

Major public medical facilities are located outside the study area. North Arundel Hospital is northeast of Odenton along Maryland Route 100, between Routes 3 and 2. Anne Arundel General Hospital is in Annapolis.

Military personnel and their dependents can receive medical care at Kimbrough Army Hospital on Fort Meade (refer to Figure III-1).

e. Parks and Recreation

Fort Meade contains two 18 hole golf courses, two recreation centers, a bowling alley and riding stables. Burba Lake and Soldiers Lake are available for fishing, and Burba Lake has picnic facilities. However, these facilities are not open for public use.

A wooded public recreational area is located along Severn Run in the northern vicinity of the project area. The

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LEGEND FOR FIGURE III-1

PARKS, RECREATION AND NATURAL AREAS 

1. Severn Run Natural Environment Area
2. Odenton Park Recreation Areas


SCHOOLS 

- 1 & 2. D.C. Children's Center - Cedar Knoll School
3. D.C. Children's Center - Ziegler School
4. Maple Glen School
5. West Meade School
6. Pershing Hill Elementary School
7. Argonne Hills Elementary School
8. MacArthur Junior High School
9. Mac Arthur Elementary School
10. Meade Heights Elementary School
11. Odenton Elementary School
12. Waugh Chapel Elementary School
13. Arundel Middle School
14. Arundel High School

MEDICAL FACILITIES 

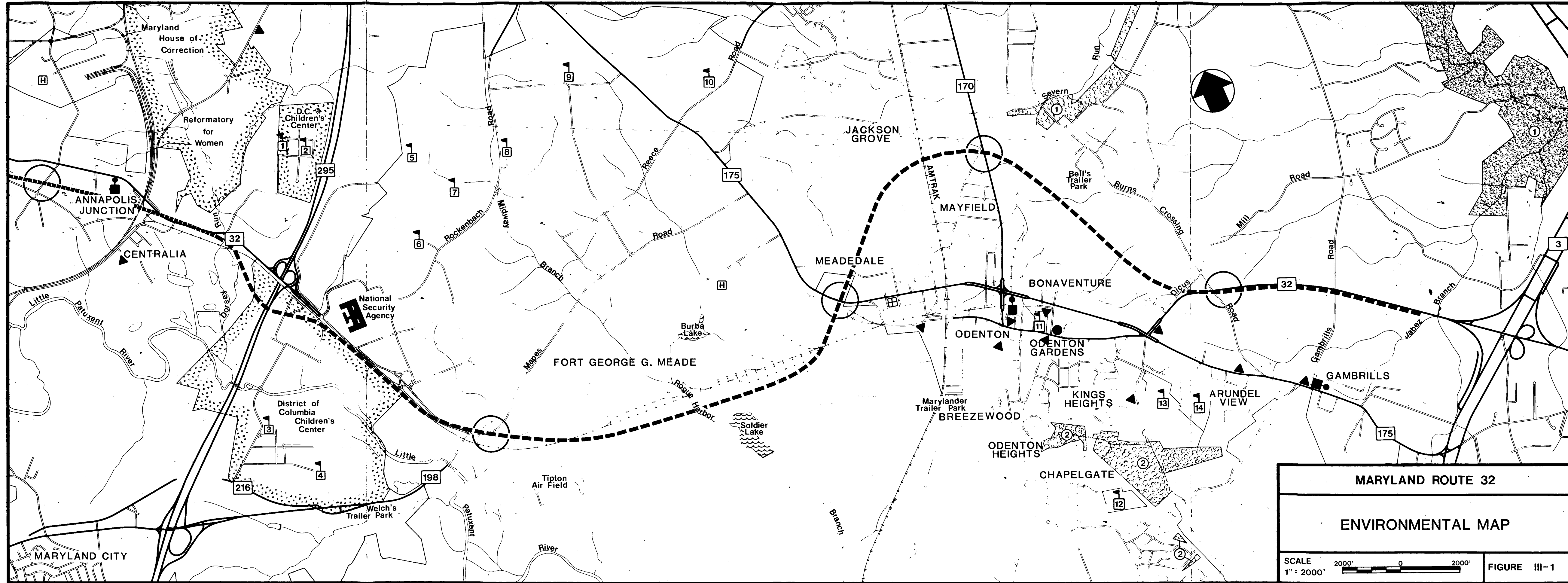
1. Clifton T. Perkins Hospital Center
2. Kimbrough U.S. Army Hospital

FIRE STATION 

POST OFFICE 

CHURCHES 

LIBRARY 



MARYLAND ROUTE 32

ENVIRONMENTAL MAP

SCALE 1" = 2000'
2000'
0
2000'
 FIGURE III-1

Severn Run Natural Environment Area (state owned) is directly east of that recreation area and encompasses approximately 1,600 acres. Two parks are located within Odenton Town Proper (refer to Figure III-1 for the locations of these areas).

f. Public Utilities

Water Supply

A large portion of the study area is in the Fort Meade East water district. In addition to the Fort Meade water supply and treatment plants, several subdivisions have individual facilities. All these are primarily supplied by groundwater sources.

Power

Baltimore Gas and Electric Company supplies utility service to the study area through its Waugh Chapel substation. Fort Meade maintains an auxilliary power supply for emergency purposes.

g. Public Transportation

Other than private taxi companies, the only public transportation in the study area is Amtrak rail service to Odenton Station. This provides commuter service to Baltimore and Washington, D. C., and through service to points beyond.

h. Bikeways

There are 3.7 miles of completed bikeways within the study area. All are located within the Fort George G. Meade Military Reservation and were constructed by the Department of

the Army. They are as follows:

1. Rockenback Road - A Class II, highway shoulder bikeway for a distance of 1.2 miles between the National Security Agency complex and MacArthur Junior High School.
2. Cooper Avenue - A sidewalk bikeway for a distance of 1.6 miles between Rockenback Road and the Athletic Field at Lake Burba.
3. Reece Road - A Class II, highway shoulder bikeway for a distance of 0.9 mile between Cooper Avenue and Chisholm Avenue.

Anne Arundel County has identified two desirable bikeway locations in its portion of the Regional Planning Council's "Baltimore Region Bikeways" plan within this same study area. These are Maryland Route 175 (Maryland Route 32 at Bonaventure to the Howard/Anne Arundel County Line) and Mapes Road (Jessup Road to the Howard/Anne Arundel County Line).

i. Other Facilities

Three post offices are located in the study area. One post office is northwest of Fort Meade at Annapolis Junction (just inside the Howard County line). Another is at the Odenton Shopping Center. The third is located at Gambrills Road and Maryland Route 175 in Gambrills. All locations are indicated on Figure III-1.

Clifton T. Perkins Hospital Center, a hospital for the criminally insane, is located northwest of Fort Meade; just inside the Howard County Line. On the southeast side of the hospital, is the Maryland House of Correction Reformatory For Women. South of the correctional facility and on both sides of existing Maryland Route 32 is the District of Columbia Children's

Center. (refer to Figure III-1).

The National Security Agency is a quasi-military organization located directly next to Maryland Route 32; near the northeast quadrant of the Baltimore/Washington Parkway/Maryland Route 32 interchange.

3. Economic Setting

The government sector is extremely important in providing employment opportunities for residents of the study area. According to the 1970 census data, approximately 28 percent of all persons in the vicinity of the project area hold government jobs, either Federal, State, or local (1980 census data is not yet available). Services such as business, repair, personal, and entertainment, provides approximately 21 percent of the jobs in the surrounding area. Retail trade supplies jobs for about 16 percent of the employment population. About 12 percent of the labor force is employed in manufacturing. The balance of the industrial categories contributes a minor role in providing job opportunities to the people residing in the Fort Meade area.

Retail and wholesale trade in the Fort Meade study area each generated over \$2.6 billion in 1972. This represented a significant increase - double for retail trade and triple for wholesale trade - in business volume since 1967. Services and manufacturing produced about one-half billion dollars in sales for 1972. Services grew in business volume by 2.5 times since 1967.

In 1974, the Baltimore Regional Planning Council (RPC) constructed an economic model for the region. It concluded that

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"the Fort Meade army base has a significant impact on the area's economy and its present level of operation. Major changes in that level of activity would have important consequences for the Baltimore/Washington bi-regional area". (Nathanson, 1974). The total effect of Fort Meade on the local economy is \$141.5 million annually. The total spin-off employment from Fort Meade is approximately 9000 workers.

During the 1970's the level of employment at Fort Meade had remained relatively constant. During that time, nearly one-third of all Federal government employees residing in Anne Arundel, Howard, and Prince George's Counties worked at Fort Meade. Estimates by Fort Meade Officials indicate a substantial number of all Federal employees residing in the three-county area are presently working at Fort Meade.

Suburban Maryland subdivisions experienced much faster employment growth from 1964 to 1970 than from 1970 to 1974. Anne Arundel County's growth rate was higher than most counties from 1964 to 1970 but lower than most in the more recent period. Anne Arundel County's relatively poor performance from 1970-1974 was due primarily to the loss of 9,000 federal employees from Fort Meade and the U.S. Naval Station in Annapolis. Private sector employment slowed considerably compared to the earlier period; however, it still grew at a rate which was nearly three times faster than private sector employment statewide.

4. Land Use

a. Existing Land Use

Anne Arundel County has developed from an agricultural

and natural resources dependent county to an industrial and government oriented area. As a result, more agricultural property has been converted to residential and commercial uses.

Land use in the study area is dominated by a few large public and semi-public holdings, including Fort Meade, U.S. Naval Academy Dairy Farm, D. C. Children's Center, and Severn Run Natural Environment Area.

Zoning in the study area is primarily residential, R1 (low density) and RA (residential/agricultural). Fort Meade has been assigned R1. Commercial zoning is primarily along Maryland Routes 175, 170, and 32. A limited amount of industrial activity is located along Maryland Route 170, north of Odenton.

The existing land use map (Figure III-2) reflects the small proportion of land that is actually used in the study area. In the Odenton planning area, 38% of the acreage is owned by the Federal Government, 6% is in non-agricultural uses, and the remaining 56% is in agriculture, right of way or vacant.

Odenton

Odenton proper is zoned primarily for residential use. North Odenton, along Maryland Route 175 contains the bulk of strip commercial development in the area. This development is characterized by inadequate off-street parking, fast-food outlets, auto service centers, cafes, bars, and liquor stores.

The small area of industrial development along Maryland Route 170, north of Odenton has been restricted by the lack of water and sewer service.

Odenton is part of Census Tracts 7401.01, 7403.01, 7403.02, and 7406.00 and lies within the Fourth Assessment

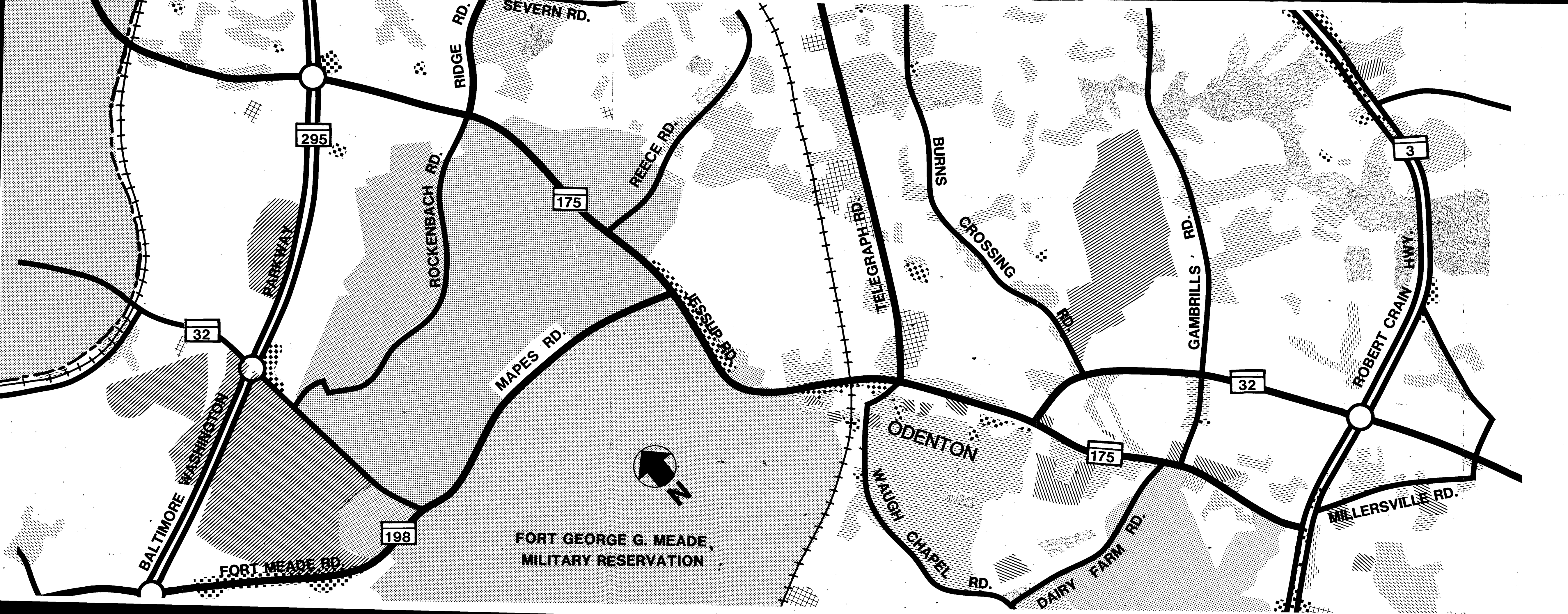
District of Anne Arundel County which was comprehensively zoned by law effective October 15, 1973. Areas are zoned in the following categories:

Zoning Class	Acres
R-5 (5 dwellings per acre)	633.71
R-15 (15 dwellings per acre)	403.93
R-22 (22 dwellings per acre)	83.54
TC (Town Center, mixed residential and commercial uses with floor area to land ratios up to 4:1)	59.67
DD (Deferred Development District, permits a planned development which may combine commercial light industrial or residential uses up to R-15)	197.37
C1A (Neighborhood convenience stores)	2.3
C-3 (General Commercial Retail)	23.87
C-4 (Highway Commercial)	24.78
OS (Open Space)	<u>62.65</u>
Total Acres	1,521.82

Fort George G. Meade

Fort Meade, a permanent United States Army installation in the study area, encompasses 13,536 acres in Anne Arundel County, encompassing approximately 3/5 the size of the study area. The northernmost third of the base contains administrative, recreational, and housing facilities while the remaining portion serves mainly as training areas and firing and combat ranges.

Fort Meade also serves as a host to over 40 distinct tenant organizations. Most notable of these are Headquarters, First United States Army, the National Security (NSA), and



LEGEND	
LAND USE	
	Residential-single family
	Residential-multi family
	Commercial
	Industrial
	Parks & recreation
	Government
	Institutional
MARYLAND ROUTE 32	
EXISTING LAND USE	
SCALE 1" = 2000'	
FIGURE III-2	

components of the U.S. Army Intelligence Command (INSCOM).

b. Land Use Planning

According to the General Development Plan, adopted July, 1978, Anne Arundel County will continue to share in the massive population growth anticipated for the Baltimore and Washington metropolitan regions. Based on this assumption, land use patterns have been projected to reflect an increasing proportion of developed land, with the largest relative increases from 1975 to 2000 occurring (in descending order) in industrial land, open space and residential development. At the same time, population density is projected to increase from 827 to 1,534 persons per square mile.

The county land use plan is designed to accommodate a population (excluding Fort Meade) of 90,000 by 1990. It is based on the general guiding policy that land will be developed only where necessary roads, public utilities, and other public services are available or can be extended in an effective and economic manner. It does not, however, ignore the adequate provision of parks and open space, schools, shopping, employment and tax base, and is sensitive to topography, soil conditions, power lines, Federal property, marketability of land, mass transit possibilities and other factors. The Ultimate Land Use plan is shown on Figure III-3.

The plan indicates the following categories of use:

- (1). Industrial - Odenton's location in the Baltimore/Washington corridor with interregional rail and highway routes makes it advantageous to industry located here. Eleven hundred,

12

sixty seven (1167) acres are allocated for this purpose-
sufficient for over 30,000 jobs.

(2). Commercial - Commercial areas would be clustered to reduce congestion; major commercial uses would be contained in the town center where 359 acres is allocated under the plan.

(3). Residential - The plan recommends use of approximately 9,925 acres of land which would include high density, medium density, low density, very low density, and conservation uses.

(4). Town Center - The town center with 193 acres would consist of very high density apartments, shopping, business and professional offices, government services and cultural activities. The residential portion would allow 44 dwellings per acre, but with 40% open space requirements. Parking would be primarily underground. Shopping would primarily be a large regional variety.

(5). Education and Library - Elementary, Junior High, and Senior High schools are located centrally to the neighborhoods they serve.

(6). Open Space and Recreation - Stream valley parks serve to connect various portions of the community and to preserve the county's waterways both here in Odenton and downstream, particularly in the Patuxent and Severn "scenic" rivers. Large park takings for the Patuxent River Park and the Severn Run State Park are regional assets of which the Odenton Plan can take advantage. County zoning, subdivision regulations and grading and sediment control regulations are designed to cause all

developers to provide open space or recreation areas and recognize limits of the topography and soil types. Acreage suggested includes greenways with 1,606 acres, regional watershed parks with 4,114 acres, and area parks with 288 acres.

(7). Public Services - Fire, police, health, and other public services are afforded provision in the plan on the Town Center.

(8). Deferred Development - Areas not yet ready to be adequately provided with public services, nor ready for absorption for development are indicated for deferred development, a zone which permits housing on five acre lots but is primarily intended for expansion of various uses in the far future. 1,044 acres are set aside in this category.

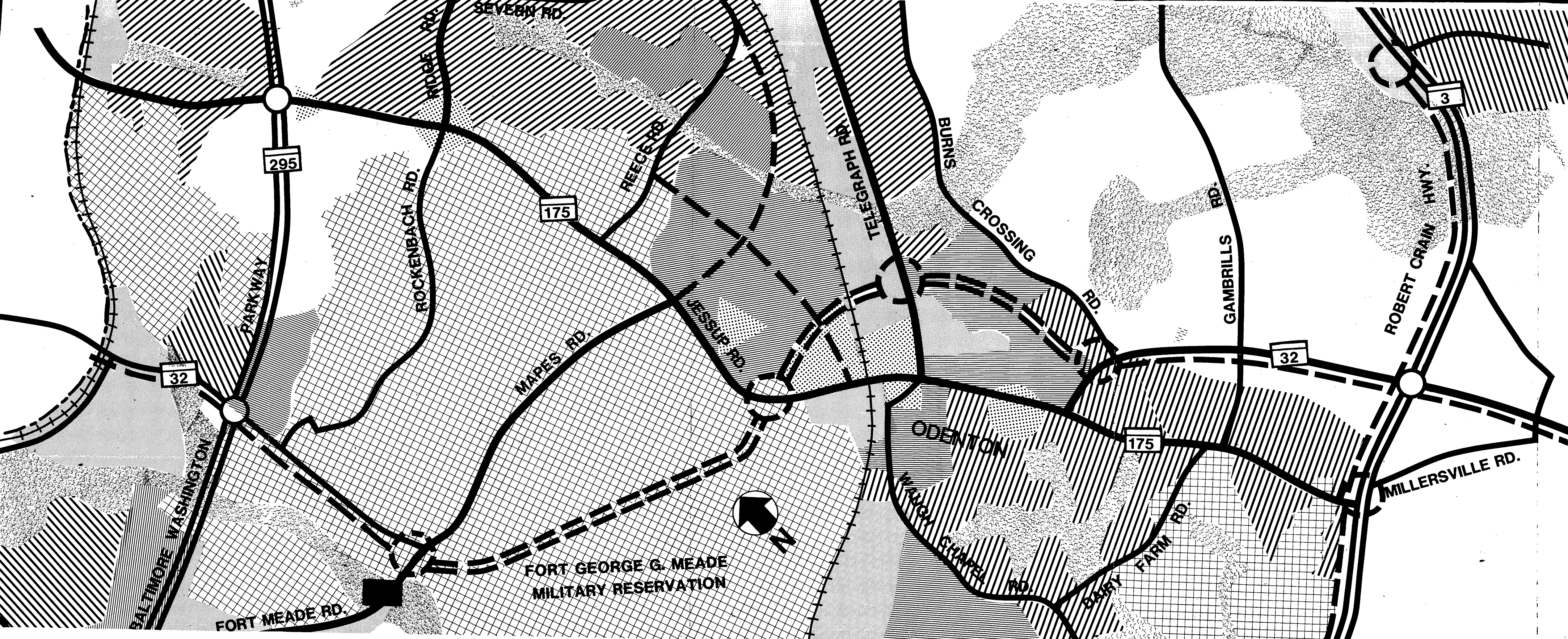
(9). Utilities -Extension and expansion of water and sewer facilities will be guided by this plan and the County-wide Master Plan for Water and Sewer.

(10). Federal Government Uses - Fort Meade and the United States Naval Academy Dairy Farm are not subject to County control. The plans for these facilities have been integrated with this plan as far as possible.

Perhaps the most important element of the General Development Plan is its proposal for multipurpose centers - large business and service centers which will provide for most of the needs of the surrounding community. To obtain this objective in Odenton, the great majority of future commercial development would be located in the town center, an already congested area. However, very limited neighborhood shopping centers are located in carefully spaced areas of proposed residential development to avoid excessive automobile travel.

c. Zoning Regulations and Land Use Controls

The formation of planning and zoning policies is a continual process which is both influenced by, and a determinant of actual development patterns. The Howard County General plan was adopted in May, 1982. The Anne Arundel County General Development Plan was adopted in 1978. Neither County anticipates making significant changes.



LEGEND
Land Use

RESIDENTIAL

- Rural
- Low - Med
- Med - High

COMMERCIAL

- Town Center
- Community Center
- General Commercial Center

INDUSTRIAL

-

OPEN SPACE AND RECREATIONAL

-

GOVERNMENT/INSTITUTIONAL

-

MARYLAND ROUTE 32

ULTIMATE LAND USE

SCALE 1" = 2000'

2000' 0 2000'

FIGURE III-3

B. Transportation

1. Transportation Facilities

a. Existing Facilities

The study area has developed in conjunction with the east-west transportation corridor connecting the developing areas of Howard and Anne Arundel Counties and Annapolis. North-South movement is served by Interstate Route 95, the Baltimore/Washington Parkway (Maryland Route 295), Maryland Route 170, and Maryland Route 3. The area is also served by Amtrak, which provides rail service at Odenton. East-west movement through the study area is provided by a circuitous route through Fort Meade which includes Maryland Route 32 (west of Fort Meade), Mapes Road, Maryland Route 175, and Maryland Route 32 east of Odenton. Most of the roadways in the study area are two-lane facilities. Maryland Route 175 has been widened at selected intersections and in the more urban sections of Odenton.

b. Planned Facilities

Several roadway improvements are programmed for the area surrounding the proposed action. Those proposed improvements expected to be in place by 1990 (completion year) or 2010 (design year) have been included in the no-build network.

Planned and programmed improvements which would affect the Patuxent Freeway study are shown on Figure III-4 and are listed below.

*Maryland Route 32 (west of Baltimore/Washington Parkway). A new highway

facility is under construction to Pindell School Road, west of U.S. Route 29.

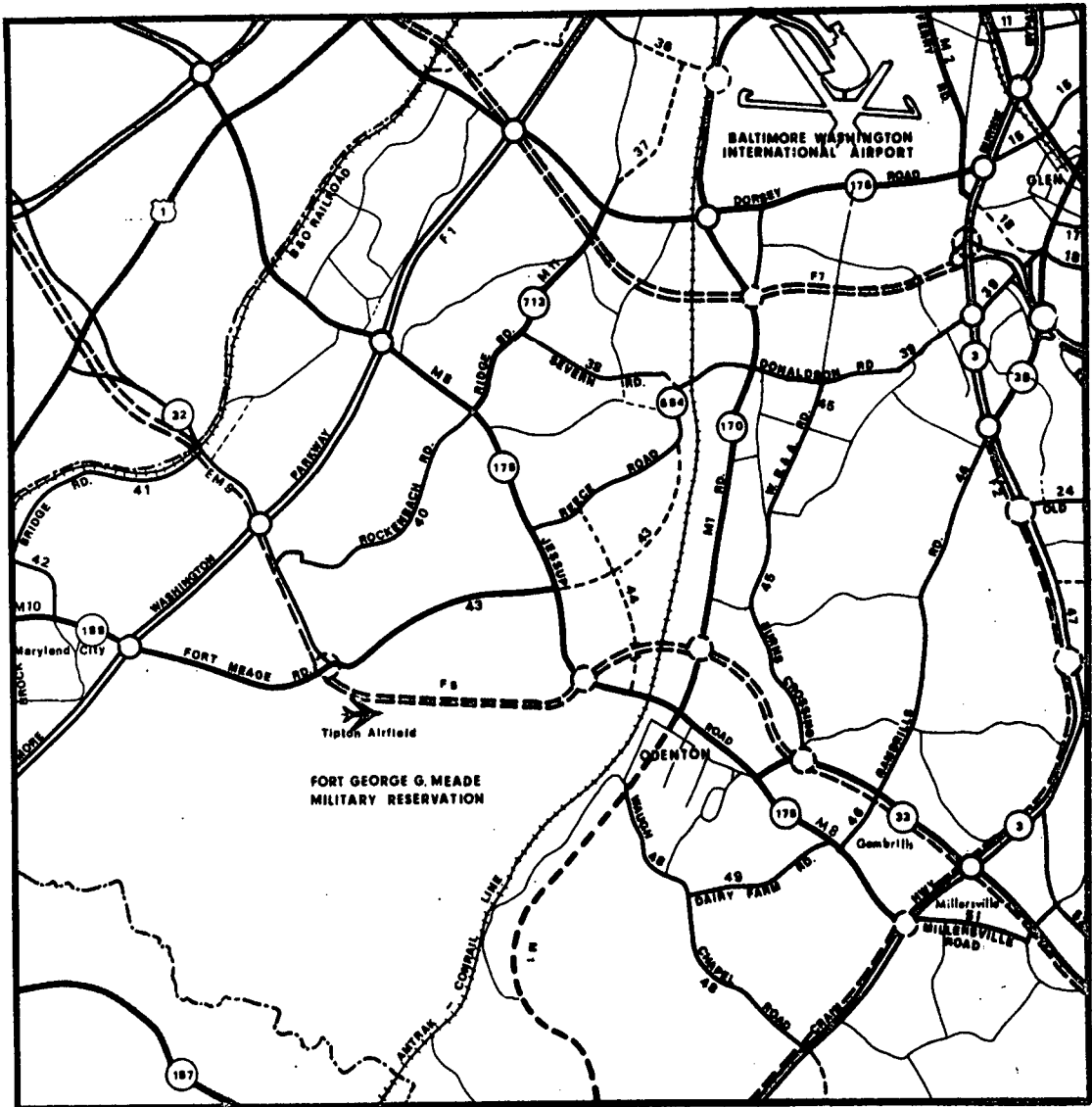
*Maryland Route 175. Capacity improvements are planned between Reese Road and Baldwin Road.

*Maryland Route 100/176 corridor. Capacity improvements are planned.

*Interstate Routes 97. New freeway facilities are being designed. Interstate Route 97 runs south along Maryland Route 3 and then southeast along existing Maryland Route 32 toward Annapolis.

2. Traffic Volumes

Projected traffic volumes in the area for the No-Build for 1990 and 2010 are shown in Figure III-5. For comparisons, 1982 volumes are also shown. All traffic volumes are Average Daily Traffic (ADT) with both directions combined. The forecasts assume full land use development of the level projected for 2010. These forecasts indicate the traffic demand associated with planned land use development if Maryland Route 32 is not constructed through the study area.






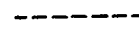
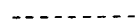
LEGEND

EXISTING

F 3 / EM 3 **FREWAY/EXPRESSWAY**
DIVIDED HIGHWAY

-  **INTERCHANGE**
-  **MAJOR HIGHWAY**
-  **ARTERIAL**
-  **COLLECTOR**

PROPOSED

-  **FREWAY**
-  **INTERCHANGE**
-  **MAJOR HIGHWAY**
-  **ARTERIAL**
-  **COLLECTOR**

NOTE EXACT ALIGNMENTS FOR PROPOSED ROADS ARE DETERMINED BY PROJECT PLANNING STUDIES WITH PUBLIC PARTICIPATION AND LINES ON THIS MAP ARE SCHEMATIC ONLY

Maryland Route 32 PROPOSED ROADWAYS

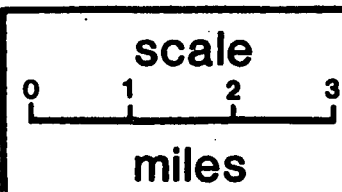
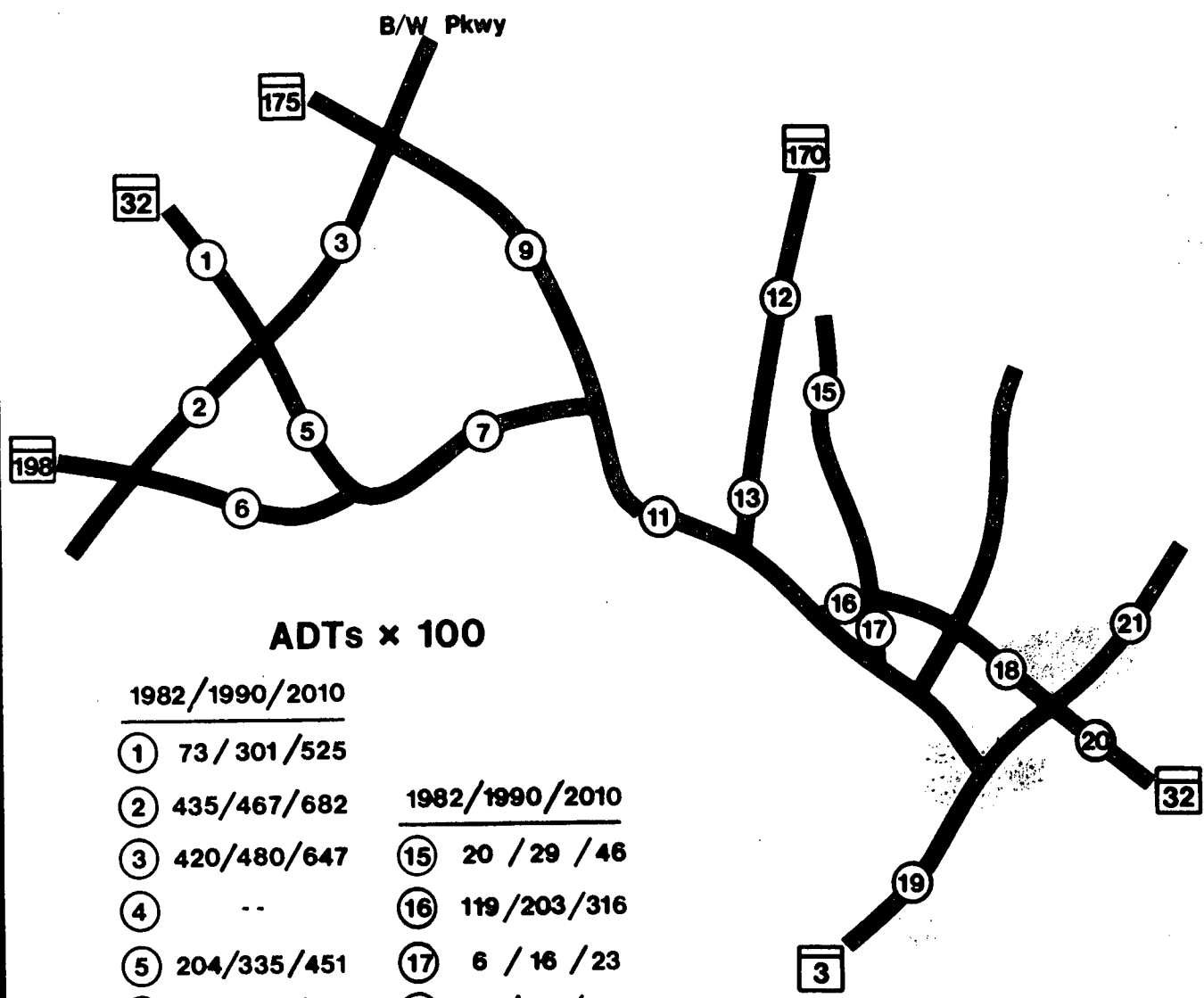


FIGURE III-4



ADTs x 100

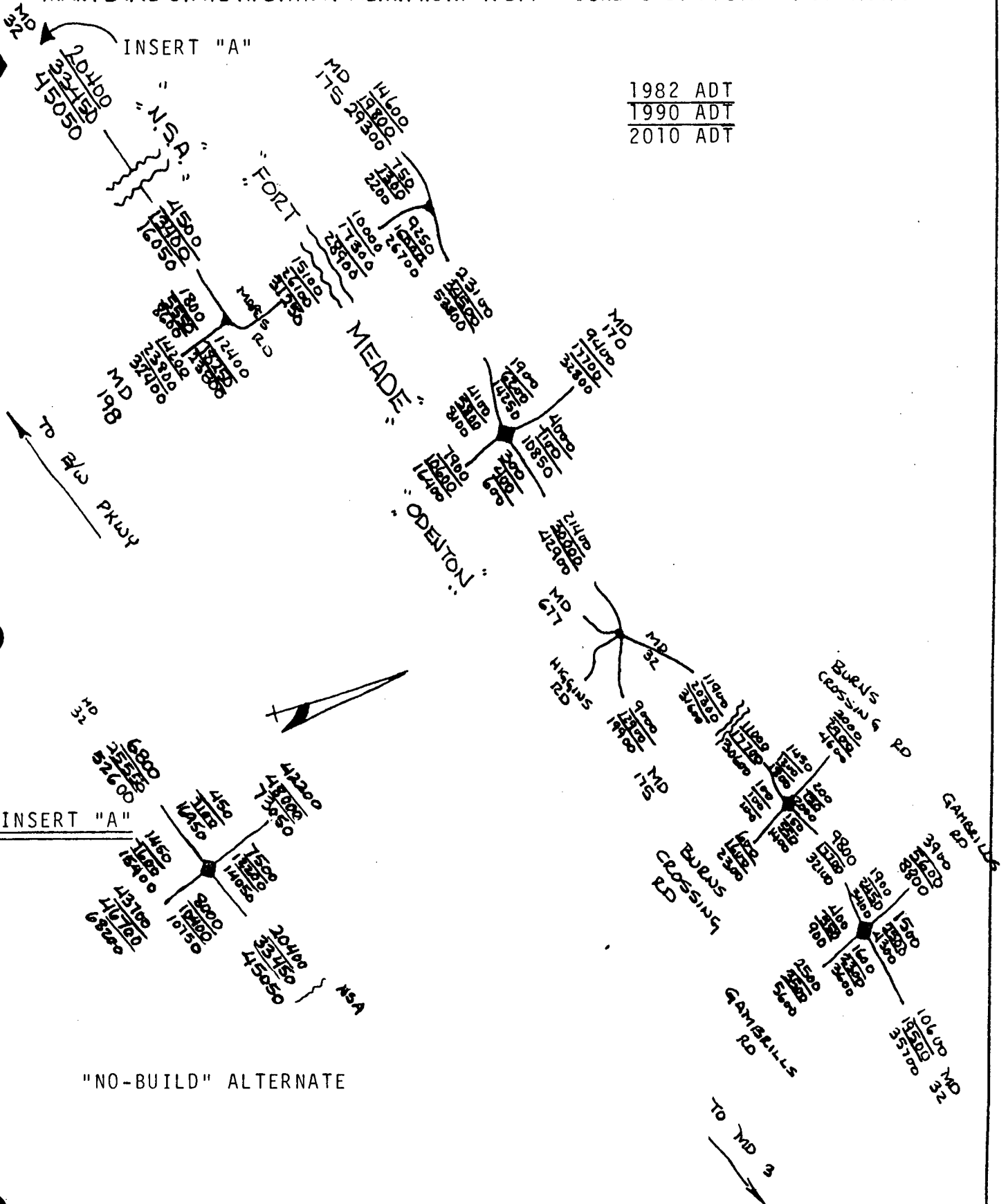
1982/1990/2010	
①	73 / 301 / 525
②	435 / 467 / 682
③	420 / 480 / 647
④	--
⑤	204 / 335 / 451
⑥	143 / 238 / 324
⑦	151 / 261 / 313
⑧	--
⑨	146 / 198 / 293
⑩	--
⑪	231 / 345 / 538
⑫	94 / 177 / 328
⑬	--
⑭	--

1982/1990/2010	
⑮	20 / 29 / 46
⑯	119 / 203 / 316
⑰	6 / 16 / 23
⑱	106 / 195 / 357
⑲	249 / 322 / 431
⑳	140 / 300 / 592
㉑	349 / 473 / 634

MARYLAND ROUTE 32	
TRAFFIC - ALTERNATE 3 (NO BUILD)	
NO SCALE	FIGURE III-5

MARYLAND STATE HIGHWAY ADMINISTRATION — BUREAU OF HIGHWAY STATISTICS

1982 ADT
1990 ADT
2010 ADT



As illustrated, forecast growth is considerable. Traffic volumes are expected to at least double on all area roadways by 2010.

3. Traffic Operations

Maryland Route 32 from the Howard County Line to Mapes Road has a current operating speed between 25 and 40 mph. By 1990, it will reach capacity and operating speeds in 2010 will have dropped to between 7 and 28 mph if no improvements are made.

Mapes Road, through Fort Meade operates between 15 to 25 mph and is expected to deteriorate considerably with the no-build.

Maryland Route 175 from Maryland Route 32 to the Baltimore/Washington Parkway operates between 35 to 50 mph and will reach capacity by 1990. By 2010, operating speeds will drop to between 16 and 28 mph and will operate at Level of Service "F".

Maryland Route 32 between Maryland Route 175 and Maryland Route 3 has an operating speed of approximately 50 mph. Capacity will be reached by 1990 and by 2010, this segment will function at Level of Service "F" with operating speeds between 7 and 28 mph.

The accident rate on study area roadways is significantly higher than that of similar roadways throughout the state (refer to Section I-B2b). The majority of these accidents occurred along Maryland Route 175 in the vicinity of Odenton. Unless improvements are made, traffic congestion and the accident rate are expected to remain constant, at best.

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C. Natural Environment

1. Topography & Geology

The Maryland Route 32 study area lies within the Coastal Plain physiographic province. The topography is generally flat to rolling, with stream valleys providing topographic relief.

The western portion of the study area also marks the division between Piedmont and Coastal Plain provinces. The sedimentary rocks which overlie the crystalline basement represent the older Cretaceous deposits on the Coastal Plain. These sediments are briefly described below:

Potomac Group (silt-clay facies) - overlie the older Patuxent Formation; composed of lower Cretaceous clay and silt clay of the Arundel Formation and silt-clay of the Patapsco Formation; sandstone with iron oxide, geodes and nodules of iron carbonate and limonite interbedded and abundant enough to be mined as iron ore.

Potomac Group (sand-gravel facies) - generally overlie the silt-clay facies; lower Cretaceous quartz sand, pebbly sand, and gravel; some iron ore concretions.

Magothy Formation - upper Cretaceous quartz sand, interstratified with silt-clay and some pebbly sand or gravel; exposures show fine-to-medium gravel, pebbly sand and coarse sand.

Monmouth and Mawatan Formations - overlie the Magothy Formation; upper Cretaceous fine-grained sand, glauconitic with micaceous clayey silt; probably of continental shelf origin.

Patuxent River Terraces -Pleistocene sand and gravel with some silt-clay; gravel may contain cobbles and boulders as large as 4'.

Alluvium - late Pleistocene - Holocene sand, silt-clay and gravel; commonly contains organic matter; primarily found in stream beds and floodplains.

2. Soils

Soils of the study area belong to the following two associations, as defined by the U.S. Department of Agriculture, Soil Conservation Service (SCS) (Soil Survey of Anne Arundel County, Maryland, 1973).

Muirkirk - Evesboro Association - nearly level to steep, well drained, loamy and clayey soils and excessively drained, sandy soils.

Eveboro - Rumford - Sassafras Association - gently sloping to moderately steep, excessively drained and well drained, sandy and loamy soils.

Each of these associations is composed of numerous soil types that differ in composition and physical characteristics. None of these soil types or associations have significant limitations to roadway construction; although an increased erosion hazard would exist if cuts or roadway construction on steep slopes would be required.

The SCS mapping of Important Farmlands for Anne Arundel County indicates there are prime farmland soils along existing Maryland Route 32 in the vicinity of the D. C. Children's Center and the western end of the study area. Areas of Prime Farmland soils are indicated on Figure III-6. There are no areas of unique farmland soils in the study area.

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3. Water Resources

a. Surface Water

The study area is located in the watersheds of the Patuxent and Severn Rivers. Principal components of these watersheds include the Little Patuxent River, Dorsey Run, Midway Branch, Rogue Harbor Branch, Severn Run, Jabez Branch, and Towsers Branch. In addition, two man-made impoundments; Burba Lake and Soldier Lake are located on Fort Meade. All permanent streams and lakes are indicated on the Environmental Map (Figure III-1).

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:

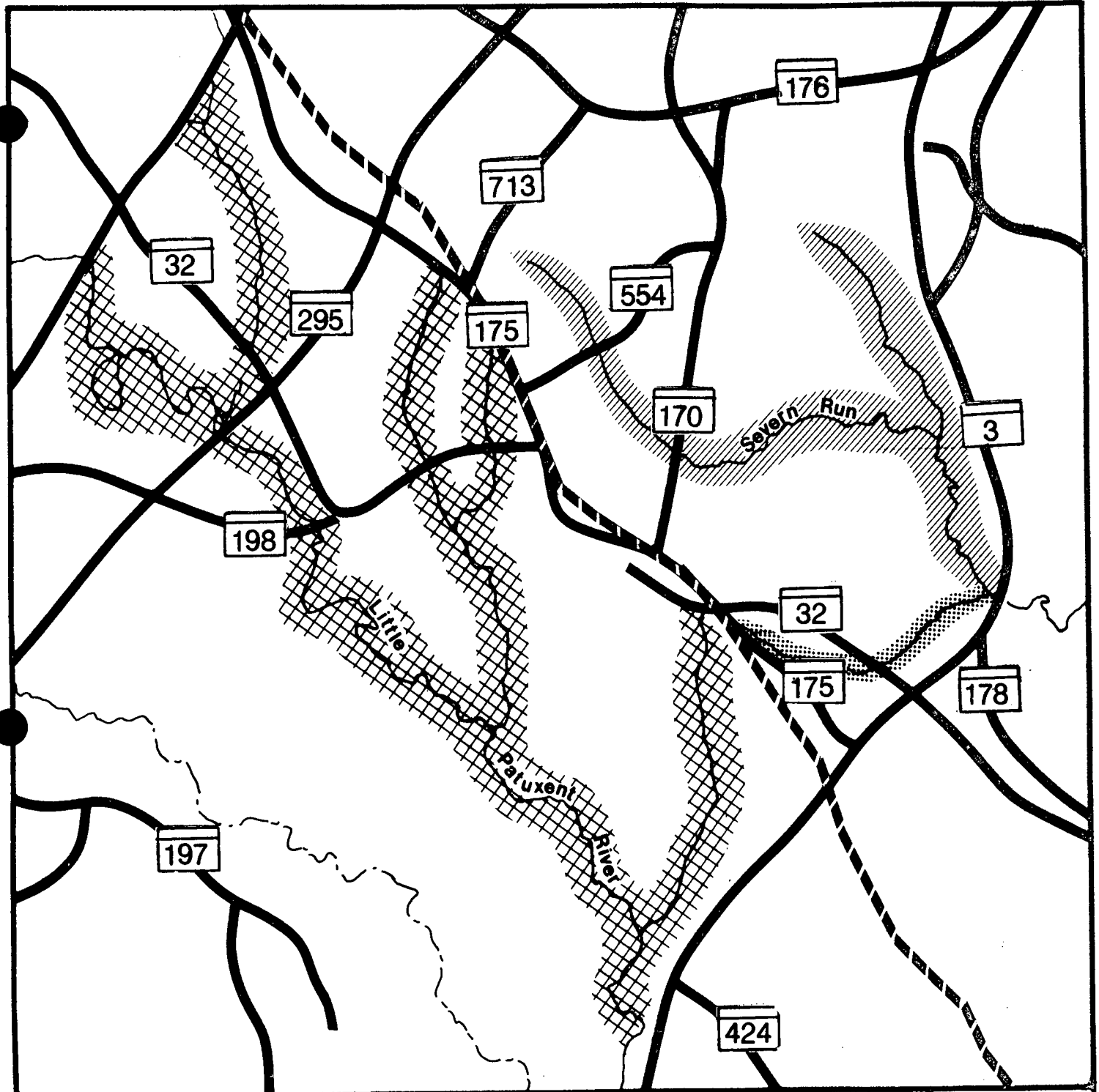
- Class I - Water contact recreation, for fish, other aquatic life, and wildlife
- Class II - Shellfish harvesting
- Class III- Natural trout waters
- Class IV - Recreational trout waters

All waters in Maryland are designated Class I with increased protection provided by additional classification. Severn Run and all its tributaries are designated Class IV, with Jabez Branch and all its tributaries having the increased protection of Class III. (refer to Figure III-7).

b. Groundwater

Groundwater in the study area is primarily provided by wells in the Patuxent and Patapsco-Raritan formations. Both are extremely productive with the Patapsco-Raritan being the most widely used aquifer on the Coastal Plain.

MAP



--- Watershed Boundary

▣ Class I Water

▣ Class III Water

▣ Class IV Water

MARYLAND ROUTE 32

SURFACE WATERS

Scale 1" = 2 miles

FIGURE III-7

The Patuxent and Patapsco-Raritan aquifers outcrop within the study area. Since these outcrops are the primary recharge areas, contamination of groundwater supplies may pose a problem. Indiscriminate dumping of waste in the Patapsco-Raritan formation's recharge area near the Baltimore-Sparrows Point industrial area has apparently altered the chemical quality of the water already.

c. Water Uses

Four significant surface water discharges affect water quality in the study area. The Maryland House of Corrections in Jessup operates a wastewater treatment plant which discharges into Dorsey Run and the Fort Meade Wastewater Treatment Plant discharges into the Little Patuxent River. Two industrial point sources (Ametek, Inc., and Vectra, Corp.) discharge into a tributary of Severn Run. Non-point sources include septic systems, stormwater runoff, and agricultural runoff.

Rivers and streams in the study area are also used for informal recreation. Fort Meade maintains two lakes for recreation, and fish and wildlife management. Burba Lake is in a developed portion of the Fort and serves as landscaping and a passive recreational area. Soldier Lake is primarily part of a fish and wildlife management area in addition to its recreational value.

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d. Floodplains

Anne Arundel County has prepared detailed floodplain mapping for Severn Run and most of its tributaries. 100-year flood data is based on ultimate land use as defined by area master plans. Preliminary floodplain delineations from the Federal Emergency Management Agency's (FEMA) Flood Boundary and Floodway Maps (FBFM) were used to determine floodplains for the other drainage areas in the study area.

Defined floodplain limits for the 100-year flood are delineated on the detailed alternatives mapping in Section II (Figures II-8 through II-14).

4. Ecology

a. Terrestrial habitat

Much of the study area has been disturbed by development and the presence of Fort George G. Meade and other government agencies. This development is discussed in Section III-A. Some relatively undisturbed tracts of natural habitat still exist in the study area. They are located primarily in areas of stream valleys where poor drainage, steep slopes, and frequent flooding prohibit development. The vicinity of Dorsey Run in the western portion of the study area, Fort Meade south and east of Tipton Air Field, and a large portion of the Severn Run watershed remain predominantly Forest Community. The characteristics of these natural areas is discussed below.

Forest Communities in the study area can be divided into three (3) general vegetation types, based on the presence or absence of certain characteristic plant species

(Brush, et. al., 1977). The major vegetation associations are described below:

River Birch-Sycamore Association - is generally found along most of the higher order streams throughout the study area; characterized by the presence of river birch and/or sycamore; representative species include slippery elm, green ash spicebush, and poison ivy; other common species include red maple, Virginia creeper, greenbriars, Japanese honeysuckle, tulip poplar, and black gum.

Tulip Poplar Association - found primarily in the uplands of the western portion of the study area, extending east to approximately Maryland Route 170; is characterized by the presence of tulip poplar in the absence of other characteristic species; commonly associated with red maple, flowering dogwood, Virginia creeper, black gum, white oak, sassafras, black cherry, grape, mockernut hickory, southern arrowwood, and Japanese honeysuckle.

Chestnut Oak - Post Oak -Blackjack Oak Association - dominates the eastern part of the study area from Maryland Route 170; recognized by stunted appearance and xeric characteristics includes Eastern chinquapin, sassafras, Virginia pine, red cedar, and pitch pine; understory comprised of blueberries, huckleberries, and mountain laurel.

Another important component of the terrestrial ecology of the study area is Old-Field habitat. These areas are generally former logged areas or cultivated fields which are slowly returning to their natural state. They are usually younger successional stages of the Forest Community, ranging from grassy-weedy areas to brushy fields containing shrubs and young trees. The flora varies considerably, but typically includes grasses, asters, goldenrod, sumac, shrubs, and saplings. These

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areas are important to wildlife, particularly where they meet Forest Communities because that "edge" provides a much wider range of habitats than found in either community. Representative animal species are listed in Appendix C of this statement.

Three plant species which occur in Anne Arundel County were placed under review to determine suitability for inclusion on the Federal threatened or endangered species list. Two of these species could be present in the Maryland Route 32 study area. Juncus caesariensis Coville, a rush, is known from one location in the county in pine barren sphagnum bogs. Helonias bullata L., the swamp-pink, has been found at one location in Anne Arundel County in a swamp or bog habitat. Coordination with U.S. Fish and Wildlife Service and the Maryland Natural Heritage Program will continue throughout the project planning process, particularly if additional information on the distribution of these plants becomes available.

b. Aquatic Habitat

The aquatic community of the Maryland Route 32 study area includes numerous streams and rivers, lakes, and wetlands. All these habitats are inter-dependent and adverse impacts to one would also affect the others.

The streams and rivers of the study area are important for their scenic, recreational, and habitat values. Representative fish and invertebrate species are listed in Appendix C of this statement. Many are important for their sport and recreational value to area residents. As discussed previously, Severn Run and its tributaries is designated as Class IV,

Recreational Trout Waters, and is regularly stocked with trout by the Maryland Department of Natural Resources.

c. Wetlands

Wetlands are essential components of the freshwater ecosystem 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 water pollution, erosion protection, and is an important source of food for aquatic life.

The predominant wetland types in the study area are briefly discussed below. Major areas of wetland in the study area are identified on Figure III-8. Wetlands adjacent to the proposed action are indicated on the plans in Section II.

Palustrine Aquatic Bed - dominated by plants that grow 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 persistent 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).

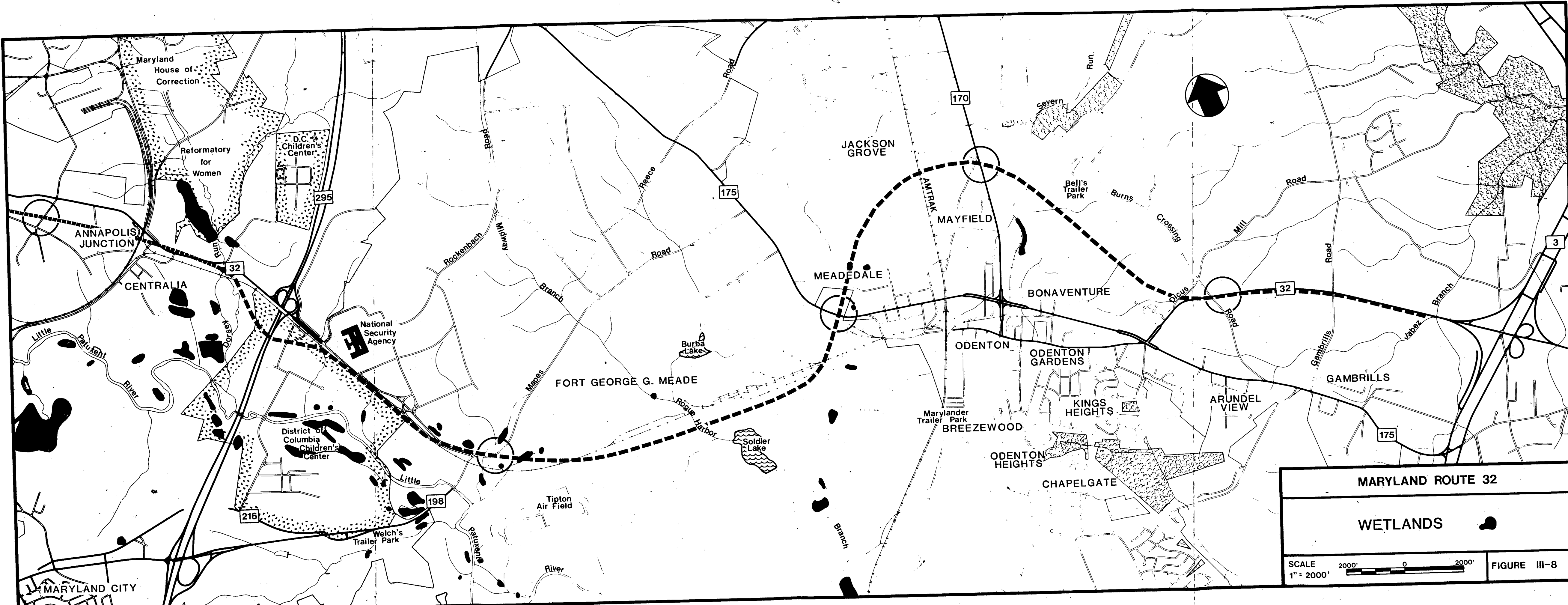
Palustrine Forested (broad leaved deciduous) -is characterized by woody vegetation 6 meters tall or taller; dominant trees include red maple, American elm (Ulmus americana), and ashes (Fraxinus spp.).

d. Wildlife

The Maryland Route 32 study area supports a highly diverse wildlife community. This is largely due to the wide variety of available habitats. Many species are of sport importance (deer, rabbit, squirrel, pheasant, dove, waterfowl, and fish) and are hunted primarily on Fort Meade property. All the wildlife provides potential for passive observation or research. Coordination with DNR, Wildlife Administration and U.S. Fish and Wildlife Service (refer to Section V) indicates no known populations of threatened or endangered species exist in the study area.

Correspondence with the Maryland Natural Heritage Program indicates, however, the Glassy Darter (Etheostoma vitreum) is endangered in Maryland and rare throughout its range. It has been collected in Dorsey Run and the Little Patuxent River. This classification does not afford the Glassy Darter any legal protection as specified by the Endangered Species Act of 1975, 87 Stat. 884 or the Maryland Nongame and Endangered Species Conservation Act of 1976, 10-2A01.

The distribution of wildlife is not uniform throughout the study area. This is largely due to the size and variety of various habitats. The major area of wildlife activity is the southern portion of Fort Meade. It contains large tracts



MARYLAND ROUTE 32	
WETLANDS	
SCALE 1" = 2000'	
FIGURE III-8	

of relatively undisturbed land and is contiguous with the Patuxent Wildlife Research Center. Other areas of prime wildlife habitat include the area along Dorsey Run in the western portion of the study area, and the Severn Run drainage area. A list of representative wildlife species inhabiting this portion of Anne Arundel County is provided in Appendix C. Those listed are only the more frequently observed species that might be encountered on a casual visit. The area actually supports additional species too numerous to list and not usually seen by the casual observer.

Preservation of suitable habitat will be required to maintain this diverse flora and fauna. A tract of relatively undisturbed land has been acquired by the State for conservation. The Severn Run Natural Environment Area, an area north of Maryland Route 3 as indicated on Figure III-8 is under the control of the Maryland Forest and Parks Service. As of January, 1981, 1196 acres had been acquired and 420 acres were in the process of being acquired outside the area of impact. Ecological features include wetlands, hardwood forest, anadromous fish, migratory waterfowl, etc. These biotic features and the area's rugged topography combine to give excellent scenic and environmental value. The Severn Run tributaries have been designated as an Area of Critical State Concern (Site Number TN 1). The acquisition goal for this area is 1618 acres.

In addition to this area, the U.S. Fish and Wildlife Service has a wildlife manager on Fort Meade to maintain wildlife habitat on the base.

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D. Air Quality

As part of the Baltimore Metropolitan Region, Anne Arundel County is in a non-attainment area. However, the air quality of the study area can be characterized as good. The Maryland State Department of Health and Mental Hygiene monitoring site at Odenton, Maryland has not recorded a violation of either the one or the eight hour standard for carbon monoxide in over four years (refer to Section IV-D for standards).

All states are required to have a State Implementation Plan (SIP) for non-attainment areas. The SIP includes transportation control plans (TCP) and basic strategies for the attainment and maintenance of ambient CO air quality standards. This project conforms to the SIP as it is part of a conforming transportation improvement plan.

Basic strategies include: 1) the continued construction of the transit system in the Metropolitan Baltimore area, 2) the continued reduction of vehicular emissions as a result of the Federal Motor Vehicle Control Program, 3) the implementation of an inspection/maintenance program for motor vehicles, and 4) the further analysis and implementation of alternative transportation control measures to reduce pollution from the overall regional transportation system.

E. Noise

The major contributors to the existing noise profile in the study area consist of commercial and light industrial development, railroad lines, and residential traffic. These ambient noise levels are usually measures in A-weighted decibels

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(dBA), a scale of noise levels which corresponds most closely to the frequency response characteristics of the human ear. The ambient L₁₀ noise levels measured in the study area ranged approximately from 49 to 65dBA. More information on the ambient noise survey conducted as part of this study is contained in Section IV-E.

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F. Cultural Resources

1. Historic Sites

The Maryland Historical Trust has identified 24 sites of historical significance in the study area. These sites are identified below, and their locations are shown on Figure III-9. Only two sites which are eligible for the National Register of Historic Places, Grasslands and the Lowman Farm, are close to the proposed project. The project will require no right of way from these historically significant sites. There are five additional sites near the study area which are possibly eligible for the National Register. None of these sites, however, is close to any proposed alternates.

To address possible impacts to these historic sites, close coordination with the Maryland Historical Trust will be maintained. The State Historic Preservation Officer has stated that there will be no adverse effect on any site on or eligible for the National Register.

Sites eligible for, or included on, the National Register of Historic Places are marked with an asterisk (*) in the following list. All others are Maryland Historical Trust Inventory quality.

- A. All Saints Church
- B.* Wood (Dorsey) House
- AA-94* Grasslands
- C. House at Welch's Trailer Park
- D.* (Watts) House
- AA-743* Jones House
- AA-751 Owens House
- G. Smitson House
- AA-752 House on Morgan Road

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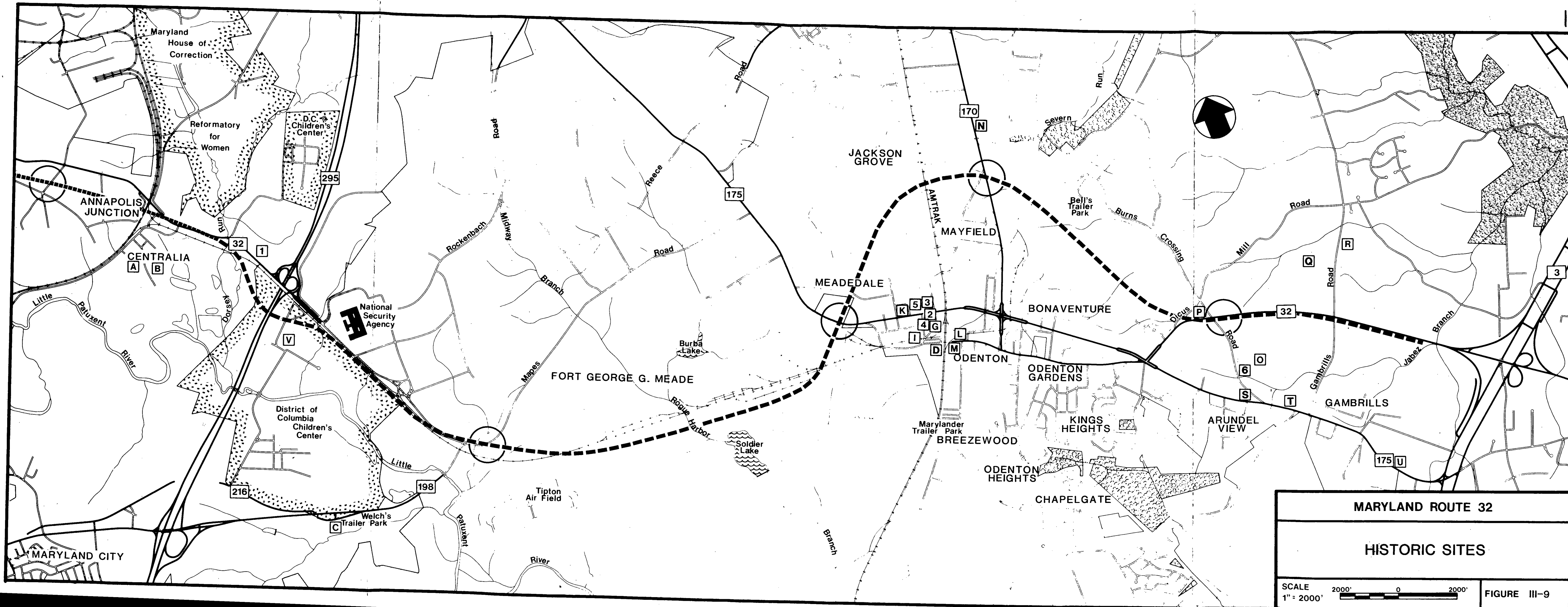
- I. House on west side of Morgan Road
- AA-727 Green house on south side of Hale Street
- K. House
- L. (Murray) House
- M. Red House
- N.* Lowman Farm
- AA-170* Stone House and Barn
- O. (Rogers) House
- P. Farmhouse and outbuildings
- Q. Farmhouse and outbuildings
- R. House
- S. (Clemens) House
- T. (Fousby) House
- U.* House and outbuildings
- V. House on D. C. Children's Center property
- 2. Archeological Sites

One archeological site was found during a survey of the study area by the Maryland Geological Survey (September 30, 1982 letter).

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LEGEND FOR FIGURE III-9

- A. All Saints Church
- B. *Wood (Dorsey) House
- 1. AA-94* Grasslands
- C. House at Welch's Trailer Park
- D. *(Watts) House
- 2. AA-743* Jones House
- 3. AA-751 Owens House
- G. Smitson House
- 4. AA-752 House on Morgan Road
- I. House on west side of Morgan Road
- 5. AA-727 Green house on south side of Hale Street
- K. House
- L. (Murray) House
- M. Red House
- N. *Lowman Farm
- 6. AA-170* Stone House and Barn
- O. (Rogers) House
- P. Farmhouse and outbuildings
- Q. Farmhouse and outbuildings
- R. House
- S. (Clemens) House
- T. (Fousby) House
- U. *House and outbuildings
- V. House on D. C. Children's Center property



MARYLAND ROUTE 32

HISTORIC SITES

SCALE 1" = 2000'

FIGURE III-9

IV
ENVIRONMENTAL
CONSEQUENCES

IV. ENVIRONMENTAL CONSEQUENCES

A. Social and Economic

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The General Development Plan for Anne Arundel County designates that Odenton is located in an area of potential high growth. The construction of proposed Maryland Route 32 is included in the plan and will be a part of the development of the Odenton area. Maryland Route 32 will provide improved access and traffic operation along the project corridor, improve access to the Amtrak Rail System and the Amtrak Commuter Station near Annapolis Road (Maryland Route 175) at Lokus Road, and encourage new commercial enterprises and industry to locate in the corridor.

Additional benefits for the project area derived from improvement of Maryland Route 32 would be inducements for Odenton to revitalize and upgrade older communities, develop Odenton's proposed Town Center, and improve access to local community facilities. On a regional level, improvement of Maryland Route 32 would promote better use of the Baltimore/Washington Corridor and a more direct route from western Maryland to Annapolis and the Eastern Shore.

1. Social

a. Residential Displacement and Relocation

No-Build Alternate - No relocations nor displacements would take place under the no-build alternate. This alternate would contribute to slow residential and commercial development throughout the study area and is inconsistent with proposed land use by the county.

Alternate 2 Modified (Selected Alternate) -Under this alternate approximately 32 families will be displaced. The

Me

TABLE IV-I

SOCIO-ECONOMIC IMPACTS		
IMPACT CATEGORY	NO-BUILD ALTERNATE	ALTERNATE 2
1. Residences Displaced	0	32
2. Number of People Relocated	0	100
3. Minority Families Relocated	0	0
4. Businesses Displaced	0	16
5. Farms Displaced	0	0
6. Historic & Archeological Sites Adversely Affected (National Register Eligible)	0	0
7. Public Recreational Lands Affected	0	0
8. Effect on Residential Access	None	None
9. Consistent with Land Use Plans	No	Yes

displacees include 23 owner occupants and 9 tenant occupants. Of these, it is anticipated that 3 owners and 7 tenants would require use of last resort housing.

Five of the displaced residences are in the vicinity of the Maryland Routes 32/175 interchange. These homes are generally moderate, one story brick and frame houses. This area, known as Meadedale is one of the older communities in the area. Two (2) families in this area would require housing of last resort.

The majority of the displaced residences are in the Mayfield area, where an interchange is proposed for Maryland Route 32/170. Seventeen (17) homes would be affected. These are also generally older houses with low-to-moderate income families, seven (7) of which would require last resort housing.

The remaining displacements will occur at the Maryland Routes 32/Burns Crossing Road interchange and at Cambrills Road. The Selected Alternate will require the displacement of ten (1) families. The houses in this area are generally newer than most homes in the vicinity and are of higher value. One tenant-occupant would require last resort housing.

Based on the Anne Arundel County Multiple Listing Service, replacement housing is available for all displacees. Businesses displaced by the selected alternate should, according to the Multiple Listing Service, be able to relocate with a minimum of difficulty. (See Section IV-A2 for discussion of impacts on businesses). There are no known outside projects that will affect the availability of replacement housing. No

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adverse effect is expected in the neighborhoods to which the displacees will be relocated. Relocation of businesses is expected to occur in a timely and satisfactorily manner and without undue hardship to the displacees.

A lead time between 30 and 60 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 North Calvert Street, Baltimore, Maryland.

b. Access to Community Facilities

Alternate 2 Modified - This alternate will not deny nor interfere with access to any community facilities located in the project area. Elderly persons and handicapped persons should be able to continue use of community facilities and services without disruption from traffic as a result of improvement to Maryland Route 32.

Alternate 3 (No-Build) - Deteriorating traffic conditions, under the no-build alternate will continue to worsen in areas of Odenton where congestion is increasing; making crossing streets very difficult and posing hazards to children, bicyclists, pedestrians, and nearby residents.

c. Disruption of Neighborhoods and Communities

Alternate 2 Modified, the selected alternate is not expected to produce any significant adverse impacts to the integrity of neighborhoods throughout the project area. It will not divide or act as a barrier between existing communities.

d. Effects on Minorities

No handicapped or elderly persons are expected to be displaced under the Selected Alternate. There are an estimated fifteen (15) minority employees employed by businesses which would be relocated within the study area by Alternate 2 Modified.

e. 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.

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f. Impacts to Fort George G. Meade

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The alignment of Alternate 2 Modified through Fort Meade has been included in the Fort Meade Master Plans. An agreement between Fort Meade and the Maryland State Highway Administration is being negotiated concerning all aspects of the Selected Alternate which includes the replacement of facilities displaced by Maryland Route 32. These facilities include general storehouses, barracks, education centers, a heavy equipment maintenance building, sewage pumping stations, a riding stable, and the Maryland Route 198 entrance guard house. The majority of the displaced buildings are wood frame barracks which are currently used for storage.

g. Impacts to the District of Columbia Children's Center

The proposed improvements to the Baltimore/Washington Parkway interchange and the alignment of Maryland Route 32 (Patuxent Freeway) will require the acquisition of property and facilities from the District of Columbia Children's Center. One warehouse and office building will be displaced and existing access to Maryland Route 32 will be closed. Access will be improved to Maryland Routes 216 and 198 as mitigation for the loss of access to Maryland Route 32.

Coordination with the D. C. Children's Center has determined that the change in access would not adversely affect traffic circulation. The improvements to River Road would be timed to maintain traffic circulation throughout the center without interruption. A detailed agreement concerning the replacement of displaced facilities is currently being negotiated with officials of the D. C. Children's Center.

2. Economic

a. Business Displacement and Relocation

Alternate 2 Modified - This alternate is expected to displace 16 businesses. Included in the businesses to be displaced are two gas stations, a donut shop, a motel, a bowling center, a 2-screen drive-in theater, an auto repair shop, a welding shop, and a 9-Business Building which houses 8 businesses and one non-profit organization. One service station, the donut shop, and the motel would be affected by Baltimore/Washington interchange Option C.

b. Effect on Regional Business Activities

One of the County's long-range goals is to encourage development of employment centers (such as the proposed Odenton Town Center) to balance the planned rate of residential growth. Improvement of Maryland Route 32 will improve access to the area, and thus, make the project area more attractive to business. This should benefit the community in several ways. New employment opportunities would be available, allowing more people to find work in Odenton and surrounding area; thereby shortening commuting for local residents.

The Odenton Development Plan considers the short and long term trends for Odenton's growth. Construction of Maryland Route 32 will facilitate planned development of new housing and major employment centers in the area.

c. Effect on Tax Base

The General Development Plan of Anne Arundel County has made approval of growth in the area conditional to expansion of Maryland Route 32 (and other roadways such as Maryland Routes 170, 175, and 198); while development is likely to follow completion of the project, extensive development will occur in the area regardless. Therefore, it is likely that as the area is

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developed, property values and tax assessments will rise and the community will become increasingly urban in character. Construction of Maryland Route 32 will ease the transition from a relatively rural community to a suburban community.

Investment in the proposed Odenton Town Center can also greatly improve the revenue base. One of the primary purposes of the "Odenton Plan" is to maximize the efficiency of providing public service, to coordinate service expenditures and to anticipate future financial needs. Since Odenton's plan correlates with the General Development Plan of Anne Arundel County, Odenton's Tax Base is also expected to expand.

Construction of Maryland Route 32 will facilitate a planned increased development rate in the study area. Current land use plans and zoning allow low-to-medium density residential and commercial development which would minimize costly sprawl of public services and facilities.

3. Land Use and Land Use Planning

Future growth in the Odenton area will have a significant impact not only on the immediate local road network but on the regional trunklines as well. The proposed construction of Maryland Route 32 is a key facility for accommodating future growth and to relieve existing traffic problems. The proposed Town Center development for Odenton is inclusive in the high growth plan of the Anne Arundel County General Development Master Plan.

The Selected Alternate and growth in the Odenton area are consistent with the adopted General Development Plan of

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1978 and with the comprehensive zoning of the County. The County supports the concept of encouraging growth in the western part of the County where accessibility to employment is greater and more adequate highway capacity exists or is likely to be improved. Proposed Maryland Route 32 is consistent with Fort Meade plans for development and growth, particularly since the influence of Fort Meade on residential and commercial development has been positive and in conformance with county planning goals.

B. Transportation

Design year (2010) average daily traffic (ADT) forecasts for Alternates 2 and 3 are presented in Figures IV-1 and III-5.

All forecasts include the following assumptions in the roadway network.

*Maryland Route 3 upgraded to Interstate status and Patuxent Freeway east of Maryland Route 3.

*Patuxent Freeway west of the Baltimore/Washington Parkway included as a given assumption.

*Maryland Route 170 widened to 4 lanes south of Patuxent Freeway to Odenton.

*Maryland Route 198 dualization.

*Capacity improvements in the Maryland Route 100/Maryland Route 176 Corridor are included.

*Capacity improvements on Maryland Route 175 west of I-95 are considered.

As discussed in Section III-B, traffic volumes for 1990 are expected to reach roadway capacity with the No-Build alternate. Volumes will at least double by the design year 2010, and will operate at Level of Service "F".

The major impact of the selected alternate on study area traffic will be the increased capacity for east-west through movements and the concomitant reduction of traffic volumes along the existing route. Through traffic in the study area currently

uses a combination of Maryland Route 32 (east of the Baltimore/Washington Parkway), Mapes Road through Fort Meade, Maryland Route 175 from Mapes Road through Odenton, and existing Maryland Route 32 to Maryland Route 3. Volumes along the existing route would decrease with the diversion of traffic to the Patuxent Freeway. Through traffic in the Odenton area would drop dramatically and enhance local circulation.

The levels of service for each of the major roadway sections in the study area for Alternate 2 Modified (selected) and Alternate 3 (No-Build) in the design year 2010 are presented below:

	Alternate 2	Alternate 3
existing Maryland Route 32 - between Baltimore/Washington Parkway and Mapes Road	D/E	F
Maryland Route 32 (Patuxent Freeway) between Baltimore/Washington Parkway and Mapes Road	A/B	-
Mapes Road - Maryland Route 32 to Maryland Route 175	C/D	F
Maryland Route 175 - Baltimore/ Washington Parkway to Maryland Route 32	C/D	F
Maryland Route 32 - Maryland Route 175 to Maryland Route 3	C/D	F

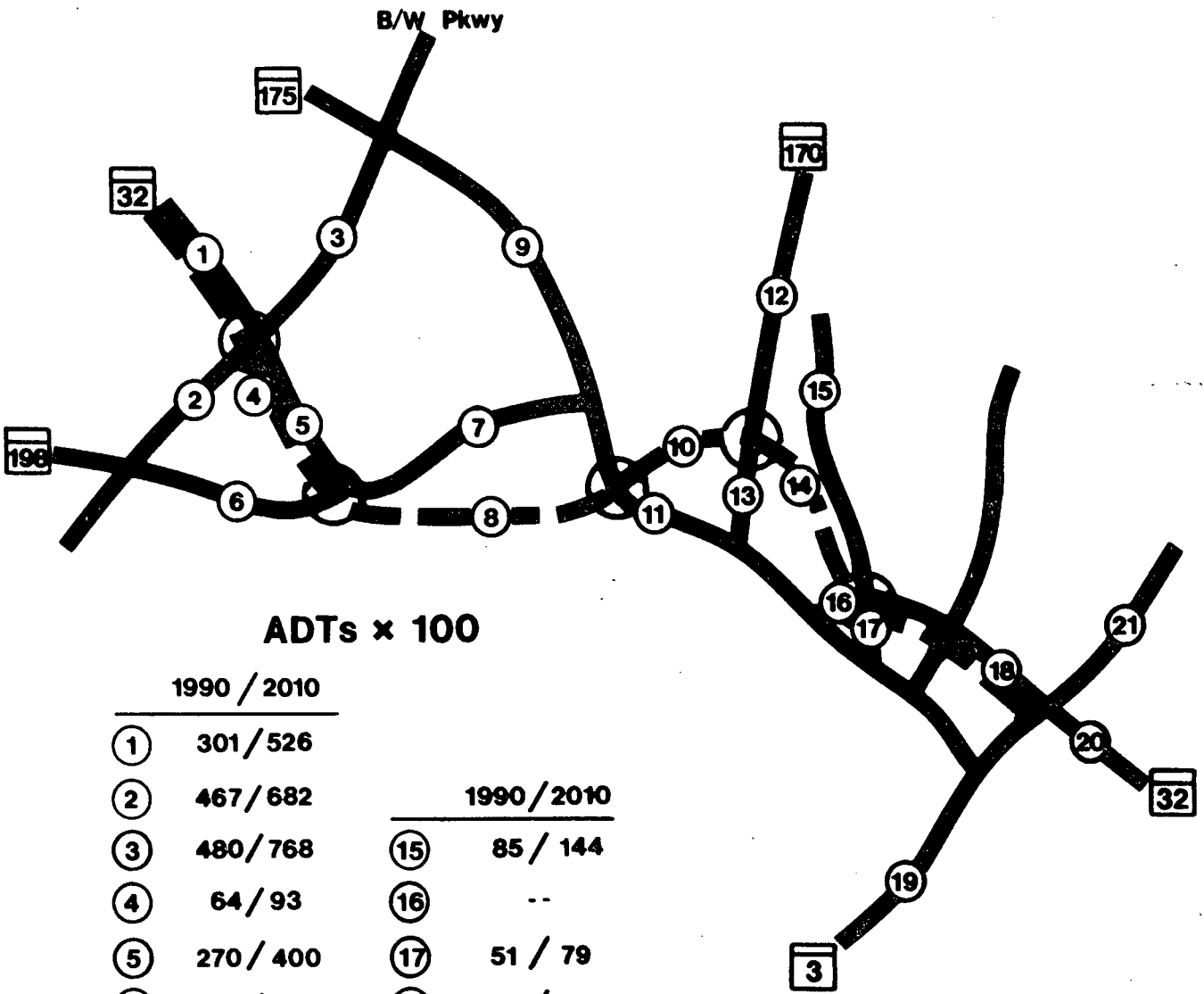
Under the No-Build (Alternate 3), the Baltimore/Washington Parkway/Maryland Route 32 interchange would also function at LOS F, while with the Selected Alternate 2 Modified this interchange would function at LOS E.

The reduction of traffic volumes and improvement in level of service with Selected Alternate 2 Modified would also

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result in increased safety and proportionally lower accident rates. The proposed improvements would provide a safer and more efficient regional highway system.

The proposed action would have no significant effect on the operation of the Amtrak station in Odenton. The separation of through and local traffic onto Maryland Routes 32 and 175 respectively, will reduce the volume of in-town traffic compared to the no-build. This reduction of congestion will slightly enhance access to the Amtrak station. Since rail travel is primarily determined by factors other than ease of access to a station, it is not anticipated that railroad patronage will be significantly affected.

The proposed alignment of the Selected Alternate is far enough away from the Odenton Amtrak station that no significant impacts are expected during construction.



ADTs x 100

1990 / 2010	
①	301 / 526
②	467 / 682
③	480 / 768
④	64 / 93
⑤	270 / 400
⑥	238 / 324
⑦	163 / 222
⑧	171 / 253
⑨	194 / 256
⑩	176 / 281
⑪	155 / 182
⑫	177 / 333
⑬	111 / 274
⑭	174 / 374

1990 / 2010	
⑮	85 / 144
⑯	--
⑰	51 / 79
⑱	195 / 357
⑳	300 / 592
㉑	473 / 634

MARYLAND ROUTE 32

TRAFFIC - ALTERNATE 2

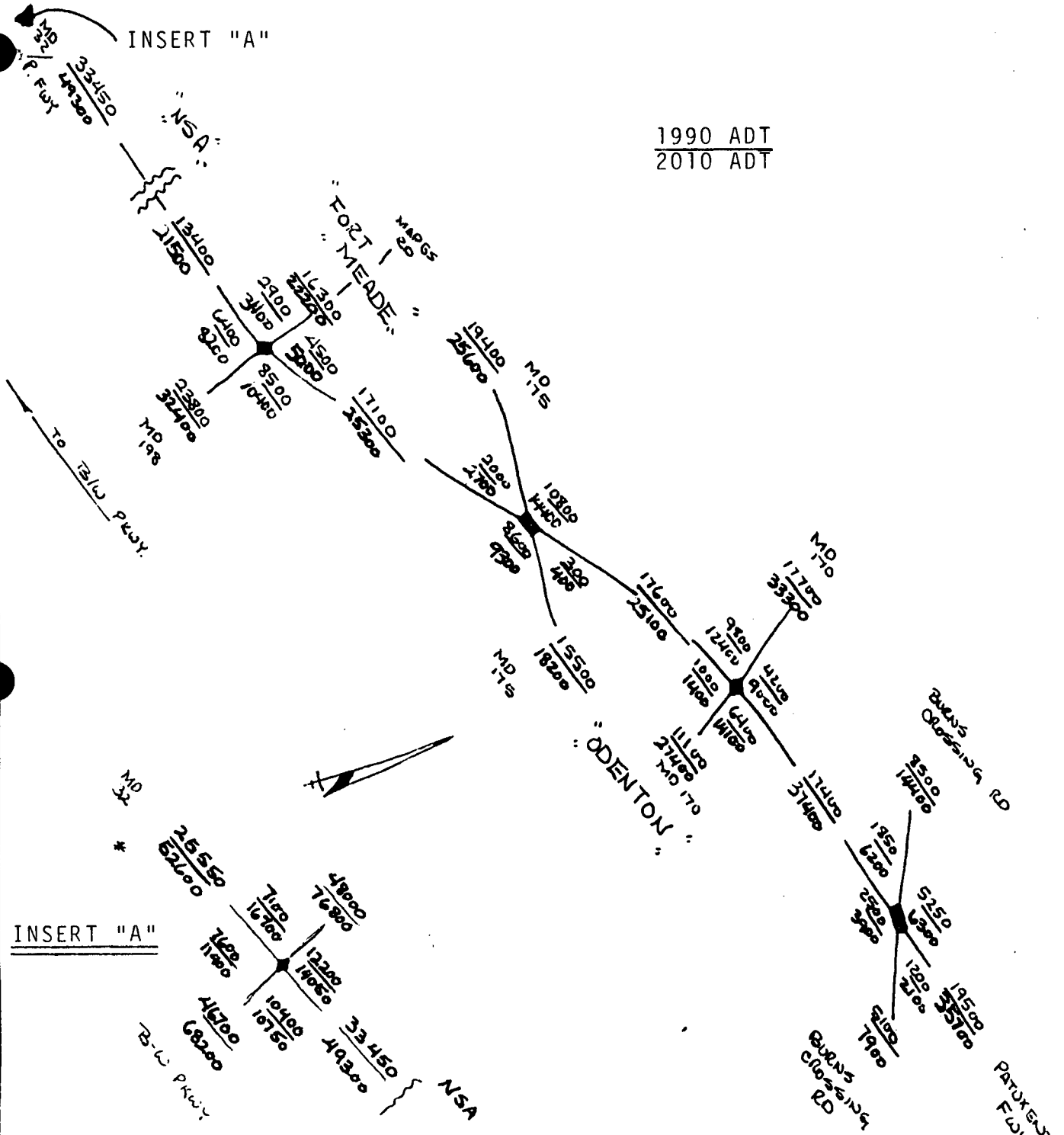
(SELECTED)

NO SCALE

FIGURE IV-1

MARYLAND STATE HIGHWAY ADMINISTRATION — BUREAU OF HIGHWAY STATISTICS

1990 ADT
2010 ADT



INSERT "A"

"PREFERRED ALTERNATE" (1990 ADT's)
2010 ADT's

*NOTE: Of this 52,600 ADT Volume, 9,300 vehicles per day are forecast to be on by-pass (Patuxent Freeway) in year 2010.

To MD 3

C. 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 will involve changes in terrain along its length. The maximum height of any cut or fill would be approximately 25 feet. Fill sections will be combined with structures to elevate the roadway to cross streams and create grade separations. Cuts 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-C3c.

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 by the selected alternate.

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Natural soil erosion due to water and wind can be accelerated by highway construction without control measures when vegetative cover is removed and runoff is concentrated by new drainage patterns. 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. Fugitive dust will be controlled by revegetation and by use of water or hygroscopic chemicals on unpaved roads during dry weather construction.

60.8 acres of prime farmland soils will be used for highway right of way. This is not considered significant because this land is not used for agriculture and is not planned to be. Much of it is on the grounds of the D. C. Children's Center. Another area of prime farmland soils is along existing Maryland Route 32 between Gambrills Road and Maryland Route 32. The proposed improvements in this area will be kept within existing 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

Highway improvements and other features of urbanization may have adverse effects on water resources including: less infiltration and stream base flow, more surface flow, higher stream peak flow, and shortened lag time. Corresponding impacts on water quality include increase in erosion, sedimentation, water contamination, and thermal pollution.

Highway use results in the accumulation of

potential water pollutants, including: vehicular oil, grease, gasoline, and solvents; wear particles from clutches, brake linings, and tires, exhaust emissions which collect on the surfaces of pavement and nearby vegetation; roadside litter and debris; de-icing compounds and abrasives applied to roadway surfaces; and materials used for right of way maintenance, such as defoliant, pesticides, and fertilizers.

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 grassy drainage ditches, stormwater detention ponds, and other methods of slowing the flow of stormwater runoff. Considering the present condition of the streams, no significant overall adverse impacts are expected due to the new road, although there may be a few localized unavoidable changes in stream water quality. Furthermore, most of the newly created roadway surfaces are sufficiently distant from nearby streams so that many of these pollutants will be diluted by runoff from surrounding areas prior to their introduction into nearby drainages.

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.

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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. 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.

Since the alignment 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. However, with application of available erosion control technology, no significant impact to surface water quality is generally anticipated.

The selected alternate will 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 Patapsco formation's sand and gravel facies. These areas contribute to the recharge of the Patapsco-Raritan 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 will require the realignment of tributary 5A to Picture Frame Branch (a tributary of Severn Run), as shown in Figure IV-2. Approximately 1,100 feet of stream channel will be replaced by a new channel and culvert.

According to the Severn Run Watershed Management Study (1980), this portion of the Severn Run watershed has a relatively depressed flora and fauna, primarily due to the discharge of industrial waste, and runoff from commercial and

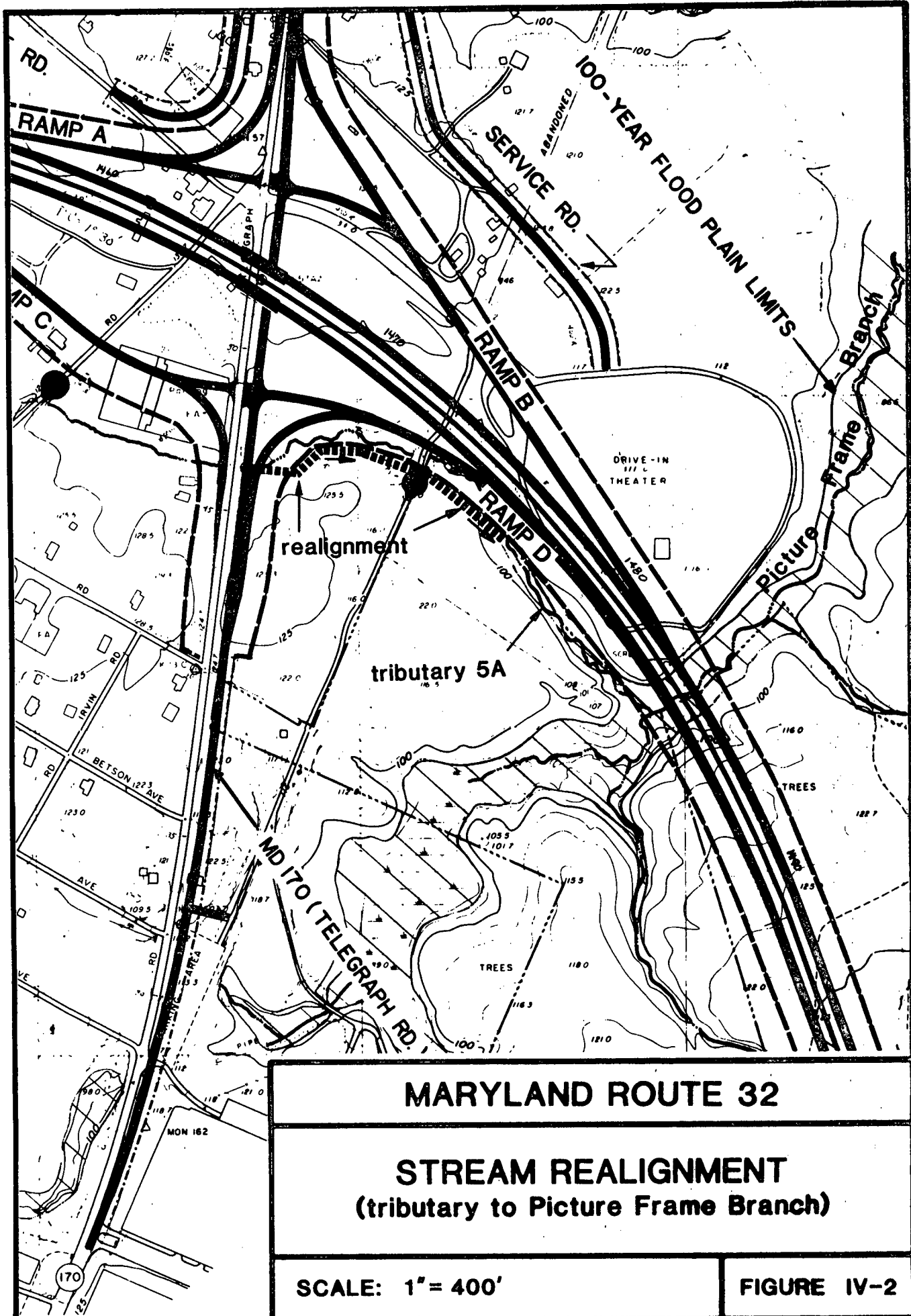
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residential areas on the west side of Maryland Route 170.

There is no practicable alternative to avoid the channel change. Geometric standards for the interchange require minimum distances between ramps. An alignment shift to the north would adversely affect the mainstem of Severn Run, which is environmentally more sensitive and has better water quality than Picture Frame Branch. A shift to the south would have increased adverse impact to the community of Mayfield.

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. In the selected alternate, about 180 feet of existing stream bed will be lost, thereby reducing the number of benthic invertebrates available as food sources for higher trophic-level organisms.

The relocated stream segment would be constructed in the dry and would have a substrate of similar composition to the existing channel. Efforts to recreate equal lengths of stream channel would be included in the realignment. Highway fill slopes adjacent to the new stream channel would be stabilized and revegetated immediately during construction. Vegetation will include indigenous trees and shrubs to provide shade and stabilize stream banks. Design features and construction techniques will be used to restore the stream to its existing condition.



MARYLAND ROUTE 32	
STREAM REALIGNMENT (tributary to Picture Frame Branch)	
SCALE: 1" = 400'	FIGURE IV-2

Construction of the Maryland Routes 32/198 interchange will require the realignment of a small tributary to the Little Patuxent River. This stream is located northeast of the Maryland Routes 32/178/Mapes Road intersection and drains a small, flat area on Fort Meade. Approximately 2,200 feet of stream will be realigned with Alternate 2 Modified. Detailed drainage plans for this area were not developed during this portion of the study due to the small drainage area and extremely low flows. Almost all the existing stream bed will be within the interchange right of way. Consequently, landscaping and revegetation of the streambanks will be restricted. An overall plan to retain as much existing vegetation as possible will be developed for this interchange in conjunction with wetlands mitigation (refer to Section IV-C4). As part of this plan, open sections of the realigned stream will include a natural bottom and vegetation to shade and stabilize the stream banks.

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. Appropriate drainage structures would 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. Wetland areas for the Patuxent River watershed are identified by the Maryland Department of Natural Resources, Water Resources Administration. Wetlands in the Severn Run watershed were identified by Anne Arundel County and from field investigations.

Construction of the selected alternate will require the alteration of several wetland areas for roadway uses. Both seasonal and permanent wetlands will be affected by construction of the selected alternate.

Construction of mainline Maryland Route 32 just east of Dorsey Run will require the displacement of approximately 1.8 acres of forested wetland. According to coordination with the Maryland Department of Natural Resources and the U.S. Army Corps of Engineers, Waterway construction and Section 404 permits will be required for fill and construction in the 100 year floodplains of Dorsey Run. Mitigation for the affected wetland will be required as part of the permit procedure.

A suitable replacement site is located between ramp A (refer to Figure II-8) and mainline Maryland Route 32, downstream along Dorsey Run. Consideration will be given to a replacement wetland at this location during Final Design. Coordination with the resource agencies indicates either an emergent or wooded wetland could be planted to mitigate the wetland take at this location.

The proposed interchange at Maryland Route 198/Mapes Road and Maryland Route 32 would adversely affect 5.4 acres

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of four small wetlands. One is scrub-shrub, another is emergent, and the remaining areas are forested wetlands. A number of wetlands in this vicinity have already been eliminated by construction activities on Fort Meade. None of these wetlands are within the designated 100-year floodplains of any waterway. DNR Water Construction Permits are not anticipated to be required.

The size of the interchange and constraints on the alignments of both the mainline of Maryland Route 32 and Maryland Route 198 leave no alternative to the wetland impacts. Any shifts in the alignment would cause additional acquisition of property and improvements from NSA, the D. C. Childrens Center and Tipton Air Field.

Replacement wetlands will be considered during final design of the Maryland Routes 32/198 Mapes Road interchange. It may be possible to reconstruct the wetlands within the loop ramps and in right of way areas. These mitigation measures will be coordinated with the proper resource agencies during final design.

The interchange at Maryland Route 175 will also require wetland acreage for right of way. Approximately 1.0 acres of forested wetland would be taken as a result of construction. These wetlands were also identified by Maryland DNR as non-tidal wetlands in the Patuxent River Watershed. Avoidance of this wetland would result in increased residential and business displacements. Replacement wetlands will also be considered for inclusion within loop ramps in the design of this interchange.

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A small (0.2 acre) emergent wetland along a tributary of Picture Frame Branch will be affected by the construction of the Maryland Route 170 interchange. Preliminary design indicates the stream along which the wetland lies will be realigned. This relocation will require a Waterway Construction Permit from Maryland DNR and may require a U.S. Army Corps of Engineers (USACE) Section 404 Permit. A shift in alignment to avoid this wetland would result in adverse impacts to the main-stream of Severn Run, creating much greater degradation of stream quality than presently anticipated.

Mitigation of all wetland impacts will be considered during final design phase. One-to-one replacement of wetland impacts will be investigated on-site where feasible.

Field reviews have been held with representatives of the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, the Maryland Department of Natural Resources, U.S. Environmental Protection Agency, and the U.S. Department of the Interior to discuss potential stream, wetland, and wildlife impacts related to this project. Avoidance of extremely sensitive natural areas and recommended mitigation measures have resulted from these meetings. Further coordination with USACE and the Maryland DNR (Wildlife and Water Resources Administrations) will continue during project planning to determine what mitigation measures would be appropriate.

Wetland Finding: Based upon the above considerations, it is determined that there is no practicable alternative to the proposed new construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

5. Flood Hazard Evaluation

The right of way for the selected alternate will involve two identified 100-year floodplains; one at Dorsey Run, a tributary to the Little Patuxent River, the Little Patuxent River proper, and another at a tributary of Picture Frame Branch, in the Severn Run drainage.

Areas where proposed improvements encroach on identified 100-year floodplains are shown on the plans in Section II-B of this document.

Approximately six acres of the Dorsey Run floodplain are within the limits of construction of the Selected Alternate. This area will be affected by construction of the directional ramp from eastbound proposed Maryland Route 32 to existing Maryland Route 32 (future service road and access to NSA). Geometric constraints limit the distance between the ramp and mainline. Early coordination with the U.S. Fish and Wildlife Service (FWS) indicated their desire to have the ramp moved closer to the mainline. This suggestion was examined and adjustments were made as much as practicable. Design of the structure and fill areas will ensure that construction has no significant effect on flood-stage elevation.

The proposed interchanges at Maryland Route 198/Mapes Road will require the use of approximately 7 acres of the 100-year floodplain of the Little Patuxent River for right of way. This will be in conjunction with the realignment of Maryland Route 198 and a new crossing of the Little Patuxent River.

12/1

Construction of the selected alternate will include a new interchange at Maryland Route 170 which will involve the floodplain of Picture Frame Branch. Approximately 1.5 acres of floodplain will be involved with the proposed improvements and right of way requirements. Modifications to minimize floodplain involvement were considered, but geometric constraints limit the "narrowness" of the interchange. An alignment shift was also investigated, but would adversely affect the more environmentally sensitive Severn Run floodplain.

The use of standard hydraulic design techniques for all waterway openings will 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 Water 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.

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

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 will be affected by highway construction and use. The selected alternate will require 227 acres of woodland habitat, and 77 acres of old field habitat. This loss of habitat will be accompanied by at least a proportional reduction in animal populations using these habitats, with greater loss for those species whose territories are fragmented.

The areas which will be most adversely affected by construction of the selected alternate are the woodland/floodplain area in the vicinity of Dorsey Run and the woodland area between Maryland Route 170 and Burns Crossing Road. The Dorsey Run area is a mix of River Birch-Sycamore, and Tulip Poplar Associations. The woodlands in the Severn Run drainage are primarily Chestnut Oak-Post Oak-Blackjack Oak Association. The areas which will be lost to construction must be considered unavoidable impacts, since existing land use and planned development constrains routing of any alternative alignments.

Since most of the wetland areas in the study area are seasonal, no significant impact to aquatic life is expected in these habitats. However, the loss of these more open areas will reduce habitat diversity. As discussed previously in Section IV-C-3, a tributary to Picture Frame Branch will be realigned by construction of the selected alternate. This stream has already been adversely affected by urbanization in its drainage area. No significant reductions in water quality or aquatic life are expected.

Mitigation measures are possible at the interchanges, where the land cleared for construction but not used for the roadway could be allowed to revert to native vegetation, providing some habitat for small terrestrial animals. These areas may also provide sufficient space for the reconstruction of wetlands as discussed in the preceding section.

Increased erosion from land clearing and introduction of pollutants from road materials and usage can be satisfactorily mitigated by using mitigation techniques specified as part of SHA's sediment and erosion control program, thereby minimizing streambed habitat alteration and streambank erosion. These methods have been reviewed and approved by the Maryland Department of Natural Resources.

7. Effects on Threatened or Endangered Species

Consultation with USFWS, Maryland DNR Wildlife Administration, and Maryland Natural Heritage Program indicated the possible presence of two plant species and a fish species which would be considered as endangered. Although they do not

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have official legal status as endangered species under the Endangered Species Act of 1973, 87 Stat. 884 or the Maryland Nongame and Endangered Species Conservation Act of 1975, 10-2A01, they are under consideration for listing.

Presently, an accurate assessment of impacts to these species by this project is not possible. Sufficient information on their distribution is not available.

Coordination with these agencies will continue to ensure no adverse impacts occur to these species directly or to their natural habitats.

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D. Air Quality Analysis

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 the 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) maximum for a one-hour period, and 9 PPM maximum for a 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 worst-case Build alternate design configuration and the No-Build alternate for the design year (2010) and for the estimated year of completion (1990). Where interchange options are presented, the worst-case interchange option was analyzed.

a. Analysis Inputs

Input variables to the microscale analysis included existing background CO concentrations, facility design characteristics, traffic data, vehicular emission factors, and worst-case meteorological conditions. A summary of analysis inputs is provided below. More detailed information concerning these inputs is contained in the Maryland Route 32 Air Quality Analysis technical report (September, 1982), which is available for review

at the Maryland Department of Transportation, State Highway Administration, 707 North Calvert Street, Baltimore, Maryland 21202.

Background CO Concentrations

To calculate the total concentration of CO, which occurs at a particular receptor site during the 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	
	one hour	eight hour
1990	3.9	2.2
2010	3.1	1.7

Traffic Data

The appropriate traffic data based on Regional Planning Council data, was used as supplied by the Bureau of Highway Statistics of the Maryland State Highway Administration. All design-hour volumes were based on the afternoon peak hourly traffic whereas the eight-hour period was selected based upon the combination of highest traffic volumes and meteorological factors yielding the highest CO concentration. Vehicle speeds used in calculating CO concentrations for each analysis condition were based on the capacity of each roadway link considered, the applicable speed limit where appropriate, and the external influences on speed through the link from immediately adjacent links. Based on the average green time given each movement at a

typical signalized intersection, an average vehicle speed of 7 mph was calculated and assumed for intersections where traffic queues form during the peak hour.

Emission Factors

The composite emission factors used in this analysis were derived from the Environmental Protection Agency's Mobile Source Emission Factors (March, 1978) and were calculated using EPA's Mobile 1 computer program. An ambient air temperature of 20 degrees F was assumed in calculating the emission factors for both the one-hour and eight-hour analysis in order to approximate worst case results for each analysis case. Credit for vehicle inspection and maintenance (I/M) programs beginning in 1983 was incorporated into the emission factor calculations.

Meteorological Data

Meteorological variables used in the analysis as issued in the Maryland State Highway Administration's Standards and Specifications for Consulting Engineers Services contains the following guidance:

<u>Variable</u>	<u>1-hour Period</u>	<u>8-hour Period</u>
Wind Speed	1 meter/second	Post-5p.m.-1 meter/second Pre-5p.m.-2 meters/second
Stability Class	Class F (Stable condition)	Post-5p.m.-Class F Pre-5p.m.-Class D(Neutral)
Vertical Mixing Height	350 meters	350 meters

The wind directions utilized as part of this analysis were rotated to maximize receptor concentrations of CO. Wind direc-

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tions varied for each receptor and were selected through a systematic scan of CO concentrations associated with different wind directions.

b. Analysis at Sensitive Receptors

Site Selection

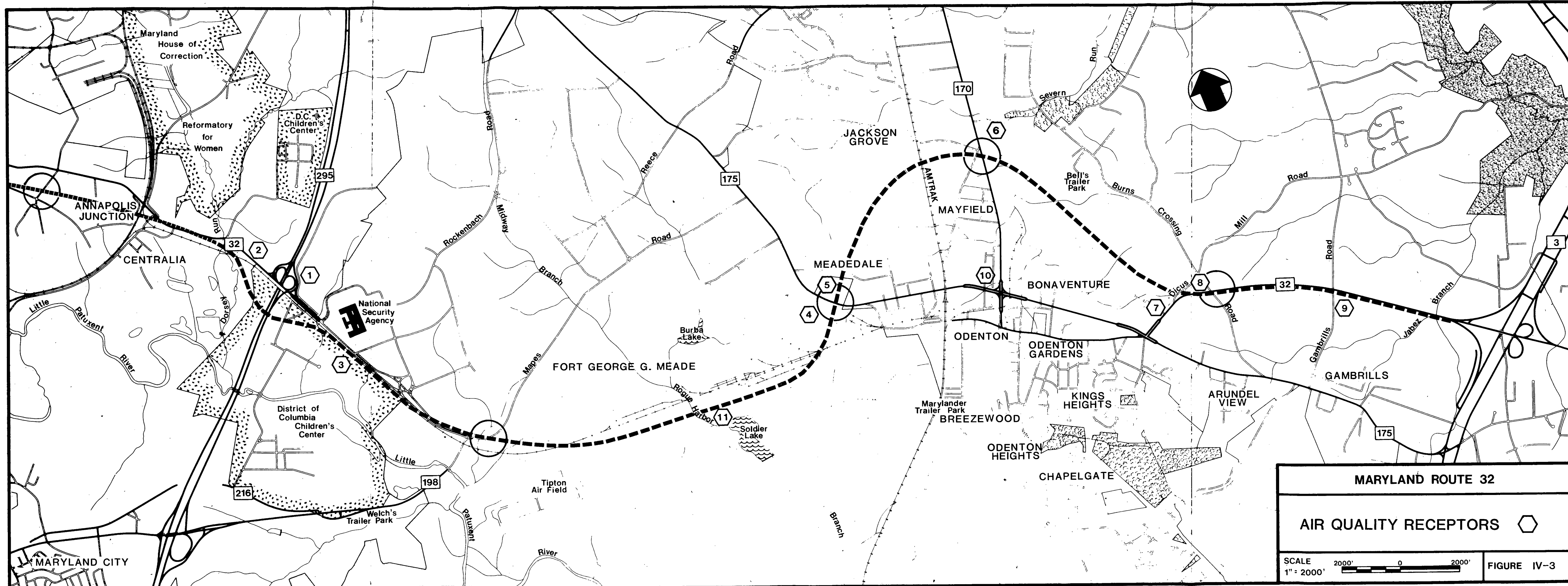
Site Selection of sensitive receptors was made on the basis of proximity to the roadway, type of adjacent land use, the presence of other CO augmenting factors, and changes in traffic patterns on the roadway network. Eleven receptor sites were chosen for this analysis consisting of ten actual dwellings, and one Edge of Right of Way (EROW) receptor. The receptor site locations were verified during study area visits by the analysis team. Figure IV-3 displays the locations of all sites.

<u>SITE NO.</u>	<u>DESCRIPTION/LOCATION</u>
1	Restaurant/Motel (Quality Inn/Schraff's Lounge) located in the northeast quadrant of the Maryland Route 295/Maryland Route 32 interchange.
2	Residential building (John Bowie Farm) on Jolly Acres Road approximately 300 feet north of existing Maryland Route 32.
3	Institutional residential structure (D.C.Children's Center) located approximately 300 feet south of existing Maryland Route 32.
4	Residential compound (Fort George G. Meade) for single enlisted personnel located approximately 650 feet southwest of Maryland Route 175.
5	Residential structure, 1 story frame located approximately 35 feet southwest of Berger Street and approximately 200 feet west of proposed Maryland Route 32.

- 6 Residential structure, 2 story stucco, located approximately 700 feet east of Maryland Route 170 and 450 feet north of proposed Maryland Route 32 on Old Telegraph Road.
- 7 Apartments (Hidden Village) 3 story Garden, on Retreat Court located approximately 180 feet south of proposed Maryland Route 32 and approximately 500 feet west of existing Maryland Route 32.
- 8 Residential structure on Burns Crossing Road located approximately 250 feet north of Maryland Route 32.
- 9 Residential structure, 1 story brick, on Gambrills Road, located approximately 300 feet south of Maryland Route 32.
- 10 Residential structure, 1 story asbestos, on Mt. Vernon Avenue located in the northwest quadrant of the Maryland Route 175/170 intersection.
- 11 EROW site at proposed Maryland Route 32 through Fort Meade. Approximate location of existing equestrian facilities. Receptor 11a, 11b, and 11c, were located 8, 16, and 24 meters respectively from the EROW.

Results of Microscale Analysis

The results of the calculation of CO concentrations at each of the sensitive receptor sites for the various alternates and analysis conditions are shown on Tables IV-2 and IV-3. The values shown consist of predicted CO concentrations attributable to traffic on various roadway links plus projected background levels. Examination of the tables reveals that no violations of



MARYLAND ROUTE 32

AIR QUALITY RECEPTORS

SCALE 1" = 2000' 2000' 0 2000'

FIGURE IV-3

TABLE IV-2

ONE-HOUR CO CONCENTRATIONS * AT EACH RECEPTOR SITE, PPM

RECEPTORS	1990		2010	
	NO-BUILD	BUILD	NO-BUILD	BUILD
R1	4.6	4.5	4.2	3.6
2	5.4	4.5	6.5	3.1
3	4.9	4.4	4.2	3.5
4	4.6	4.4	4.2	3.6
5	---	4.5	---	3.7
6	4.1	4.3	3.4	3.6
7	5.0	4.9	6.7	4.2
8	4.8	4.2	6.0	3.3
9	4.5	4.1	4.6	3.4
10	6.1	4.5	6.5	3.3
11a	---	4.3	---	3.5
11b	---	4.1	---	3.3
11c	---	4.1	---	3.3

*Including Background Levels

The S/NAAQS for CO are: one-hour maximum = 35 PPM

eight-hour maximum = 9 PPM

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TABLE IV-3

EIGHT-HOUR CO CONCENTRATIONS * AT EACH RECEPTOR SITE, PPM

RECEPTORS	1990		2010	
	NO-BUILD	BUILD	NO-BUILD	BUILD
R1	2.7	2.5	2.4	2.0
2	3.0	2.5	3.7	1.7
3	2.7	2.5	2.3	2.0
4	2.7	2.5	2.4	1.9
5	---	2.6	---	2.1
6	2.3	2.3	1.8	1.9
7	3.2	2.7	4.0	2.4
8	2.8	2.3	3.6	1.8
9	2.6	2.4	2.6	1.9
10	3.2	2.6	3.6	2.0
11a	---	2.5	---	2.0
11b	---	2.4	---	1.9
11c	---	2.3	---	1.8

*Including background levels

The S/NAAQS for CO are: one-hour maximum = 35 PPM
 eight-hour maximum = 9 PPM

either the maximum one-hour (35 PPM) or eight-hour (9PPM) S/NAAQS are predicted to occur for Alternate 2 Modified (Selected Alternate) or No-build (Alternate 3) alternate.

Furthermore, in almost every case for a given analysis year, the projected CO concentrations for the Preferred Alternate at the sensitive receptors are equal to or less than the corresponding CO concentrations for the no-build alternate. For receptor sites 5 and 11, only the Build alternate was analyzed since the proposed facility is on new alignment at these locations and there are no other contributing links.

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.

2. Conformity with Regional Air Quality Planning

The project is in an air quality nonattainment area which has

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transportation control measures in the State Implementation Plan (SIP). This project conforms with the SIP since it originates from a conforming transportation improvement program.

Accordingly, it is subjected to this federal review and project development process, and the project's conformity with regional air quality planning was addressed prior to undertaking current project planning studies.

Since pollutants that have regional impacts, such as hydrocarbons and oxides of nitrogen (precursors of photochemical oxidants) are addressed through this regional planning process, only carbon monoxide emissions, a more localized pollutant, are addressed quantitatively in this analysis.

3. Agency Coordination

Copies of the air quality analysis have been circulated to the U.S. Environmental Protection Agency and the Maryland Air Management Administration for review and comment. Copies of those comments are included in the comments and coordination section of this document.

E. Noise Impact Analysis

1. Noise Abatement Criteria

The Federal Highway Administration has established through FHPM 7.7.3, maximum noise levels for various land uses (see Appendix E). For most common land uses such as schools, residences, churches, libraries, hospitals, and parks, the exterior L10 design noise level is 70 dBA. These levels are expressed in terms of an L10 noise, which describes a noise level that is exceeded for 10% of a given time period.

To assess the probable environmental impacts of the alternates, existing ambient noise levels and project noise levels are compared to FHWA Noise Abatement Criteria for the appropriate land use activity.

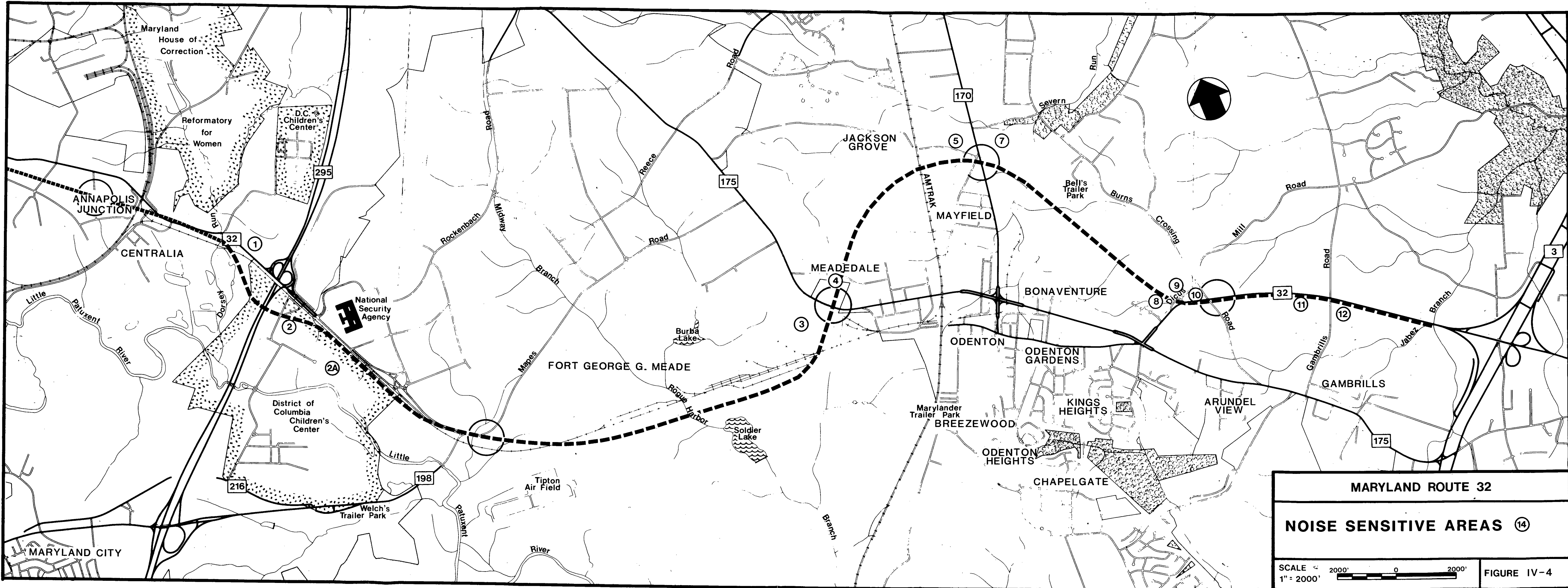
2. Ambient Noise Level Measurements

Twelve (12) noise sensitive areas were identified and analyzed in the study area. Following is a brief description of these:

<u>Noise Sensitive Area</u>	<u>Activity Category</u>	<u>Description</u>
1	B	One (1) two story, single family brick farmhouse with outbuilding, located north of existing Maryland Route 32 (historic).
2	B	Edge of right of way, south of existing Maryland Route 32, east of Maryland Route 295. Future residential

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<u>Noise Sensitive Area</u>	<u>Activity Category</u>	<u>Description</u>
2A	B	D.C. Children's Center. One (1) story, brick, airconditioned building located south of existing Maryland Route 32.
3	B	Fort Meade. One (1) story, frame barrack (Building #194) with access to Maryland Route 175.
4	B	One (1) one story, single family frame residence located on Berger Street, with access to Maryland Route 175.
5	B	One (1) two story, single family frame residence on Jackson Grove Road with access to Maryland Route 170.
7	B	One (1) two story, single family stone residence located north of existing Maryland Route 32 with access to Maryland Route 170.
8	B	Hidden Village Apartments. One (1) three story, multi-family frame, garden style apartments. Air conditioned. Access to existing Maryland Route 32.
9	B	One (1) one story, single family frame residence located on Dicus Mill Road with access to existing Maryland Route 32.
10	B	One (1) one story, single family frame residence located on Burns Crossing Road with access to Maryland Route 32.
11	B	Edge of right of way. Approximately 150' south of existing Maryland Route 32, west of Gambrills Road.
12	B	One (1) one story, single family brick residence located on Gambrills Road south of existing Maryland Route 32.



MARYLAND ROUTE 32

NOISE SENSITIVE AREAS ⑭

SCALE 1" = 2000'

FIGURE IV-4

A field measurement program to establish ambient noise levels was conducted utilizing the latest methods for 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 improvement of Maryland Route 32, plus normal traffic volume increase, was developed by the Federal Highway Administration of the U.S. Department of Transportation. The FHWA Highway Traffic Noise Prediction Model (FHWA Model) 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

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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 1.0.

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 Volumes (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-4.

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 E) published in FHPM 7-7-3.

When design year L₁₀ noise levels are projected to

TABLE IV-4

PROJECT NOISE LEVELS

NSA	LOCATION	LAND USE	AMBIENT NOISE LEVEL (L ₁₀)	2010 (dBA) Projected Design Year L ₁₀ Noise Levels	
				NO-BUILD	BUILD
1	Existing Md. 32	Residential	49 dBA	67	61
2	Existing Md. 32	Residential	56 dBA	61	68
2A	D.C. Childrens Center	Residential	56 dBA	67	65
3	Md. 175 Ft. Meade	Residential	64 dBA	61	66
4	Berger Street	Residential	52 dBA	58	70
5	Jackson Grove Road	Residential	53 dBA	60	66
7	Md. 170	Residential	52 dBA	64	65
8	Existing Md. 32 Hidden Village	Residential	51 dBA	62	69
9	Dicus Mill Road	Residential	65 dBA	68	69
10	Burns Crossing Road	Residential	60 dBA	72	68
11	Existing Md. 32	Residential	64 dBA	70	69
12	Gambrills Road	Residential	55 dBA	68	68

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exceed abatement criteria (Appendix E) 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.

No-Build Alternate

A total of twelve (12) noise sensitive areas are associated with this alternate. L₁₀ noise levels would increase 1-18dBA over present levels. Noise sensitive area 10 would be the only site exceeding of the noise abatement criteria, which results from the projected traffic increases on existing Maryland Route 32 for 2010. NSA's 1, 2A, 10, and 11 will experience higher L₁₀ levels than the build alternate because of the closeness of these receptors to existing Maryland Route 32.

Build Alternate

A total of twelve (12) noise sensitive areas are associated with this alternate. L₁₀ noise levels would increase 1-18 dBA over present levels. None of the NSA's would exceed the noise abatement criteria of 70dBA. Noise sensitive areas 1, 2, 4, 5, 7, 8, and 12 are projected to increase over ambient conditions by more than 10dBA. Any type of mitigation through the use of berms/barriers would not be feasible for any of these sites.

The following is a discussion regarding the feasibility of noise control for these seven (7) sites:

NSA 1

This receptor will have a projected noise increase of 12dBA over existing ambient levels. A barrier length of approximately 2,500' at a height of +14' would be required to effectively mitigate this receptor. The barrier would have to be segmented to provide access for driveways making it ineffective. A barrier at this location would cost approximately \$875,000 which would not be cost-effective.

NSA 2

This NSA is an edge of right of way receptor for future residential development. No mitigation is recommended for this site.

NSA 4

This receptor will experience a projected increase of 18dBA over existing ambient noise levels. A barrier length of approximately 1,200' at a height of +12' would be required to effectively mitigate this receptor. This barrier would need to be segmented to provide access for driveways making it ineffective. A barrier at this location would cost approximately \$360,000 which would not be cost-effective.

NSA 5

This NSA will have a projected noise increase of 13dBA over existing ambient levels. A barrier length of approximately 4,000' at a height of +12' would be required to attempt to mitigate this receptor, and would provide +1dBA reduction, if any. However, this receptor is located too far (+500') from proposed Maryland Route 32 for a barrier to provide adequate

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protection. A barrier at this location would cost approximately \$1,200,000 which would not be a cost-effective measure.

NSA 7

NSA 7 will have a projected increase of 13dBA over existing ambient levels. A barrier length of approximately 800' at a height of +12' would be required in an attempt to mitigate this receptor. This barrier would also need to be segmented to provide access for driveways making it an ineffective mitigation measure. Also, a barrier at this location would cost approximately \$240,000 which would not be a cost-effective mitigation measure.

NSA 8

NSA 8 will have a projected increase of 18dBA over existing ambient levels. A barrier with a length of approximately 1,600' at a height of +12' would provide only 1-2dBA noise reduction. This receptor is located too far (+200') from proposed Maryland Route 32 for a barrier to provide adequate protection. In addition, a barrier at this location would cost approximately \$480,000 which would not be cost-effective mitigation.

NSA 12

This receptor will have a projected increase of 13dBA over existing ambient levels. A barrier length of approximately 2,000' at a height of +12' would be required to attempt to mitigate this location. However, this NSA is also located too far (+250') from proposed Maryland Route 32 for a barrier to provide adequate protection. Only a +1dBA reduction would result, if any. In addition, a barrier at this location would cost approximately \$600,000 which would not be a cost-effective mitigation measure.

Some partial mitigation through the use of landscaping and plantings may be feasible for these sites and will be studied in further detail during the design phase of the project.

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 and would likely be limited to weekdays only. Therefore, noise intrusion from construction activities probably would not occur during critical sleep or outdoor recreation periods.

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F. Impact on Historic or Archeological Sites

1. Historic Sites

Two sites which have been determined as eligible for the National Register of Historic Places are close to the selected alternate. Construction would require no right of way from either site. Grasslands has been selected as both a Noise Sensitive Area and an Air Sensitive Receptor for analysis, due to its proximity to the mainline of Maryland Route 32. No violations of either Air Quality or Noise Standards were predicted. The Maryland Historical Trust has indicated the project will not have an adverse effect on either site (refer to Section VI for coordination). The Advisory Council on Historic Preservation has concurred with this determination of no adverse effect.

2. Archeological Sites

One archeological site could be affected by the construction of a new interchange at the Baltimore/Washington Parkway. After the design is determined by the joint efforts of the National Security Agency, Fort Meade, and the National Park Service, a Phase II archeological study may be required to determine the site's eligibility for the National Register.

G. Section 4(f) Statement

1. Introduction

Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 U.S.C. 1653 (f)) requires the proposed use of any land from a public park of national, state, or local significance shall not be approved by the Secretary of Transportation unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such a park resulting from such use. Comprehensive environmental investigations, reviews, and consultations must be coordinated into a single process in compliance with all applicable environmental requirements and be reflected in the appropriate environmental document as required by Section 4(f). A supplemental Section 4(f) Evaluation to the Draft Environmental Impact Statement was circulated for comment to the U.S. Department of the Interior and the U.S. Environmental Protection Agency.

2. Description of the Proposed Action

The proposed action involves the construction of a fully controlled access freeway (Maryland Route 32, Patuxent Freeway) in Anne Arundel County, Maryland in the vicinity of Fort George G. Meade, and the town of Odenton (Refer to Figure I-1).

A preliminary set of alternatives was reduced through a series of agency reviews and public meetings to two alternates studied in detail and presented in the Draft Environmental Impact Statement (DEIS). Alternate 2 was augmented: See Section II-B.

Alternate 2 Modified (The Selected Alternate) consists of a fully controlled-access freeway (Patuxent Freeway) on new location as shown in Figures II-11 through II-15. The typical section (as shown in Figure II-10) would consist of two (2) twenty-four (24) feet roadways, separated by a fifty-four (54) feet wide median, with ten (10) feet wide outside shoulders, and safety grading. This would be contained within 300 feet of right of way. This section is significantly reduced in the vicinity of the National Security Agency (NSA) and the D. C. Children's Center, as indicated on Figure II-11. The western terminus of this alignment begins at the Maryland Route 32 spur after it crosses Dorsey Run, approximately 2,400 feet west of the existing Baltimore/Washington Parkway/ Maryland Route 32 interchange. The roadway crosses over the Baltimore/ Washington Parkway and would lie between existing Maryland Route 32 and the District of Columbia Childrens Center.

Two ramps will be constructed at the Baltimore/ Washington Parkway to provide all the necessary traffic movements as part of this project. Ramp A will connect eastbound mainline Maryland Route 32 (Patuxent Freeway) to southbound Baltimore/Washington Parkway, and Ramp B will connect eastbound Patuxent Freeway with eastbound existing Maryland Route 32.

The construction of mainline Patuxent Freeway and Ramps A and B are the only improvements at the Baltimore/Washington Parkway included in this study. A full movement interchange has been proposed by others at the intersection of Maryland Route 32 and the Baltimore/Washington Parkway and has been included in the Environmental Assessment section of this document for information only. The

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interchange requirements will be determined in a subsequent study as a cooperative effort between the National Security Agency, Fort George G. Meade, Maryland Department of Transportation and the National Park Service. The design of the Patuxent Freeway will be compatible with the interchange and the Baltimore/Washington Parkway.

3. Description of the 4(f) Property

The Baltimore/Washington Parkway, a component of the National Park system, is a limited access road constructed, developed, operated, and administered primarily to provide a protected, safe, and suitable approach for passenger-vehicle traffic to the National Capital and for an additional means of access between the several adjacent Federal establishments.

The National Park Service (NPS) administers the 19-mile section of the Parkway from the northern boundary of Fort Meade at Jessup Road (Maryland Route 175) to New York Avenue Extended in Anacostia Park and the District of Columbia line. The ten-mile section of the Baltimore/Washington Parkway from Maryland Route 175 to Baltimore was constructed by the State of Maryland under the Federal-Aid highway program.

The Baltimore/Washington Parkway is a limited access, dual roadway with a variable median located in a wide right of way to provide a buffer of parkland. Right of way widths vary from 350 to 1,000 feet.

4. Description of Impacts

The proposed action requires construction and easement rights on National Park Service lands for a new mainline Maryland

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Route 32 and Ramps A and B (Figure IV-5). A permanent easement for the aerial crossing of mainline Patuxent Freeway and Ramp B of 1.6 acres will also be necessary.

The area affected by the Selected Alternate is existing Baltimore/Washington Parkway, consisting of 4 lanes of roadway with shoulders, a grassed median, and vegetated right of way. There is no unique or sensitive habitat within the parkway right of way. Areas which are presently grassed would be converted to roadway use (Ramp B), or be crossed by a bridge structure (mainline).

Traffic operations at the existing Baltimore/Washington Parkway interchange will be temporarily impaired during the construction. However, no major detours will be required.

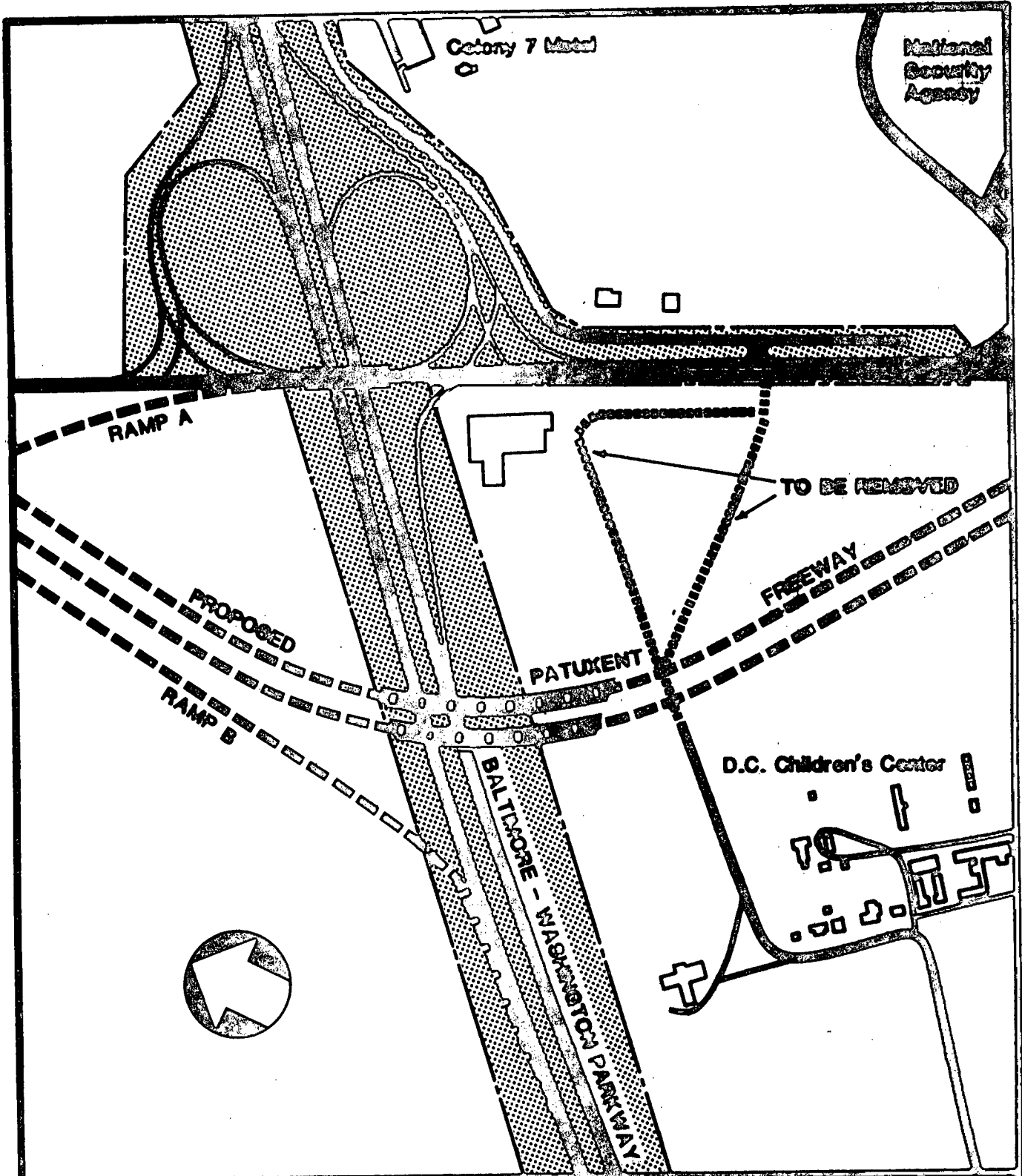
Air quality analysis of the interchange area revealed that carbon monoxide (CO) concentrations would decrease and air quality would improve as a result of the Selected Alternate. CO concentrations would be well below State and National Ambient Air Quality Standards (S/NAAQS) for the proposed action.

There are no noise sensitive areas on the Baltimore/Washington Parkway right of way as it is used for transportation purposes only.



The new ramps and mainline roadways will not be a significant change in visual aesthetics.

5. Avoidance Alternatives

The Baltimore/Washington Parkway is an extensive continuous facility in a north-south orientation. The Maryland Route 32 study corridor serves east-west traffic. Its location makes it



LEGEND

-  National Park Service Property
-  Proposed Improvements

MARYLAND ROUTE 32

SECTION 4(f) INVOLVEMENT

FIGURE IV-5

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impossible to avoid crossing the Baltimore/Washington Parkway. The U.S. Department of the Interior (March 15, 1983) has indicated that

"Because of the linear nature of the Baltimore/Washington Parkway, we concur that there are no feasible and prudent alternatives to the use of some Parkway land by the proposed crossover. This concurrence applies only to a crossover, and not to modifications of the existing interchange."

Alternate crossings were considered during the early project planning stages, but were discarded due to increased costs, and wetland and floodplain impacts.

The No-Build Alternate would not relieve any existing or future traffic operation deficiencies, including congestion on the Baltimore/ Washington Parkway. Traffic presently queues on the ramps and mainline of the parkway during the morning rush hour. NSA is in the process of expanding, which may intensify existing traffic problems.

6. Mitigation Measures

Mitigation measures have been discussed with representatives of the National Park Service (January 25, February 16, 1983) and coordination will continue through project planning and design phases to ensure the proposed action will maintain the parkway character. The Federal Highway Administration and the Maryland Department of Transportation will closely consult and confer with the Regional Director, National Capital Region, National Park Service, in the development of the final design, construction, and landscaping plans and specifications. The National Park Service must approve such plans

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and specifications, as they relate to the traversing of parklands, prior to any final project approvals by the Federal Highway Administration. In developing the plans and specifications, all parties agree that the objective will be to maintain the aesthetics and character of the Baltimore/Washington Parkway as an important gateway to our Nation's Capital. The design of the crossover shall replicate the existing parkway structures such as Maryland Route 198. Landscaping will be included during final construction phases so the new structures will fit in with the parkway character.

7. Coordination

During project planning, meetings have been held with representatives of the National Park Service. A field review was held on January 25, 1983 with representatives of NPS and the U.S. Department of the Interior to discuss the proposed improvements at the Baltimore/ Washington Parkway as well as other areas of concern. A subsequent meeting (February 16, 1983) was held with representatives of the National Park Service, National Security Agency, Fort Meade, Federal Highway Administration, and State Highway Administration to discuss the problems associated with the Baltimore/ Washington Parkway interchange. A letter from the Office of the Secretary, U.S. Department of the Interior (March 15, 1983, June 10, 1983, August 8, 1983), indicated agreement there are no prudent and feasible alternatives to crossing the parkway by mainline Patuxent Freeway. Coordination with the National Park Service will continue during final planning and design phases of the project to ensure NPS concerns are addressed. By letter of August 8, 1983 the Department of Interior indicated that it offered no objection to Section 4(f) approval of this project.

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8. Concluding Statement

Based on the above considerations, it has been determined there is no feasible and prudent alternative to the use of land from the Baltimore/Washington Parkway and the proposed action includes all possible planning to minimize harm to the Baltimore/Washington Parkway resulting from such use.

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V
DISTRIBUTION
LIST

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DISTRIBUTION LIST

Contract No. AW 295-000-070
F.A.P. No. FF 162-1 (26
Maryland Route 32 (Patuxent Freeway)
from Md. Route 32 spur west of
the Anne Arundel County line to Md. Rte. 3
in Anne Arundel County, Maryland
Draft Environmental Impact Statement

A. Federal Agencies

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

Mr. Bruce Blanchard
Director, Office of
Environmental Project Review
U.S. Department of 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, Pennsylvania 19106

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

Mr. Larry Levine
Environmental Officer
Department of Housing & Urban
Development
Curtis Building
Sixth and Walnut Streets
Philadelphia, Pennsylvania 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

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 Ave., S.W.
Washington, D.C. 20230

Mr. Robert W. Harris
Chief, Transportation Planning
National Capital Planning
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Mr. Peter N. Stowell
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Associate Director for Planning
Management & Demonstration
Urban Mass Transit Administration
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Office of Economic Opportunity,
Director
1200 - 19th Street, N.W.
Washington, D.C. 20506

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Mr. Robert Adamcik, Acting
Regional Director
Federal Emergency Management
Agency
Curtis Building
6th & Walnut Streets
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Fort George G. Meade
Commander
Fort Meade, Maryland 20755
ATTN: AFZI-FE-MP (Galiber)

Mr. Manus J. Fish
Regional Director
National Capital Region
National Park Service
1100 Ohio Drive, S.W.
Washington, D.C. 20242

B. Local Government Agencies

Roland Davis
Senior Transportation Planner
Anne Arundel County
Arundel Center
Calvert Street
Annapolis, Maryland 21204

Mr. John Schanley, Director of
Public Works
One Harry S. Truman Parkway
Annapolis, Maryland 21401

Thomas G. Harris, Jr., Director
Howard County Office of Planning
and Zoning
3430 Courthouse Drive
Ellicott City, Maryland 21043

George F. Neimeyer, Director of
Public Works
3430 Courthouse Drive
Ellicott City, Maryland 21043

William J. Jones, Deputy Director
Government of the District of Columbia
Department of General Services
613 G. Street, N.W.
Washington, D.C. 20001
ATTN: Elbert Ransom, Jr.

Frank E. Doolison, Chief
District of Columbia
Department of Human Services
Facilities Management and
Operations Division
801 N. Capital Street, N.E.
Suite 900
Washington, D.C. 20002

Mr. Lewis E. Lantz
District of Columbia DOT
Bureau of Design Engineering
and Research
613 G. Street, N.W. Room 605
Washington, D.C. 20001

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C. Maryland Department of Transportation

Director
Division of 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
8720 Georgia Avenue, Suite 904
Silver Spring, Maryland 20910

Mr. John Haifley
Office of Legal Council
Office of the Maryland
Secretary of Transportation
Maryland Department of Transportation

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

D. State Clearinghouse

Local Governments
Department of State Planning
Department of Natural Resources
Department of Budget & Fiscal
Planning

Department of General Services
Department of Economic and
Community Development
Department of Education
Department of Health & Mental
Hygiene
Interagency Committee for School
Construction
Maryland Environmental Trust
Maryland Historical Trust
Maryland Geological Survey
Department of Public Safety &
Correctional Services

E. State Highway Administration

*Deputy Chief Engineer - Development
Assistant Chief Engineer-Design
District Engineer
Bureau of Highway Design
Bureau of Bridge Design
Bureau of Landscape Architecture
Office of Planning & Preliminary
Engineering
Bureau of Project Planning
Bureau of Planning & Program
Development
Office of Real Estate
Bureau of Relocation Assistance
Bureau of Acquisition Activities
Federal-Aid Section-Office of
Real Estate
District Chief-Office of Real
Estate
State Highway Administration
Library
Equal Opportunity Section
Bureau of Highway Statistics

VI
COMMENTS AND
COORDINATION

COMMENTS AND COORDINATION

A. Coordination

Throughout the Maryland Route 32 Planning Study, every effort has been made to keep abreast of the opinions and suggestions of private citizens and organizations, and keep the lines of communication open to government agencies. A citizen participation process based on the Maryland Action Plan actively sought consultation with city, county, regional, state, and federal agencies to ensure concerns of interested parties were considered throughout the study.

1. Citizen Participation

a. Public Meetings

On June 26, 1979, a Public Initiation Meeting was held at Arundel Senior High School to inform interested citizens of the start of project planning studies.

An Alternates Public Meeting was held on January 16, 1980 to present preliminary alternates for public comment.

Subsequent to the distribution of the Draft Environmental Impact Statement, a Location/Design Public Hearing was held on November 30, 1982 at Arundel Senior High School.

2. Government Agency Involvement

Throughout project planning, close coordination has been maintained with several government agencies. Officials of Fort George G. Meade and the D. C. Children's Center have been in constant contact with the project planning team due to the intimate involvement of their facilities and the proposed location of Maryland Route 32. This coordination has resulted

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in draft agreements for the use and/or purchase of property for highway use and compensation for affected structures.

Information concerning the proposed action was solicited from specific agencies with responsibilities for transportation environmental impacts. Consultations with local agencies were made to coordinate the project with their planning studies. The project was reviewed several times with state and federal resource agencies both in the field and at the Maryland State Highway Administration's Quarterly Review Meetings.

In addition to the Quarterly Review Meetings, several meetings have been held in the field with representatives of the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the Maryland Department of Natural Resources, and the U.S. Department of the Interior (including the National Park Service and the U.S. Fish and Wildlife Administration). These field reviews were useful in obtaining input concerning stream, wetland, and wildlife impacts.

B. Comments

1. Public Hearing Comments

a. Introduction

A combined Location/Design Public Hearing for this project was held on November 30, 1982 at Arundel Senior High School in Anne Arundel County. Mr. Edward H. Meehan, 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

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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 Public Hearing - Maryland route 32" 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.

b. Comments

Mr. Walter Townsend - representing B/W Parkway Associates, owners of Colony Fairfield

Comments: - Noted omission of commercial activity on land use map in Draft Environmental Impact Statement.

- Objects to Option C due to traffic problems on Maryland Route 175, adverse travel, impacts to other landowners.

- Supports Option A with optional loop B

Response: - Figure III - has been corrected

- The configuration of the Baltimore/Washington Parkway Interchange will be given further consideration in conjunction with Fort Meade and the National Park Service.

Mr. E. Randolph Marriner - representing Katherine B. Eggerl and Blobs Park, Inc.

Comments: - Lots shown on mapping are improperly located
- Proposed change in alignment of Old Clark Road extended, to follow property lines.

Response: - Location of lots has been changed on the mapping. The alignment of Old Clark Road extended is part of the Baltimore/Washington Parkway Interchange and the final alignment is subject to the results of the ongoing study for the interchange.

Mr. John Overstreet

Comment: - Consider a bikeway along Maryland Route 32.

Response: - This project is designed as a controlled-access highway and as such, bicycles will not be permitted within the right of way unless a bikeway is constructed. Due to the difficulty of constructing bikeways within freeway right of way (due to the costs of techniques involved in eliminating cross-flows of the opposing mode), the lack of logical origins and destinations within reasonable distances, the availability of local roads to bicyclists, and the low observed bicycle usage (with the exception of the military reservation itself) a bikeway would not be feasible within this project.

Dr. Warfield - representing Club 602 on Maryland Route
198

Comment: - Where will ramps end along Maryland Route 198

Response: None necessary - Location of the ramps was
shown to Dr. Warfield at the Hearing on the
wall displays.

Mr. William Corbin - representing Margaret Rose and
family

Comment: - Timing of the project

- When would appraisals be made and when would
contact begin

- What are possibilities of physically
relocating houses

- What are possibilities of line shift

Response: - The project is programmed for design only

- Section from Maryland Route 198 to 175 has
construction money funded for Fiscal 1987

- House relocation was discussed at the public
hearing by Mr. Jack Gladding

- Some alignment shifts could be made but
would be looked at on an individual basis.

- Mr. Corbin was invited to meet with the
Project Manager to discuss possible
alignment shifts.

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Mr. Carl Nanny - area resident

Comment: - Extent of possible line shifts

- Effects on home

Response: - We can look at situation.

- Mr. Nanny was invited to meet with the Project Manager to discuss possible alignment shifts.

Mr. Robert Philburn - real estate representative for Shell Oil Company

Comment: - Prefers Option B at B/W Parkway

- Concerned with impacts to Shell Station

Mr. Arthur Grant - representing Quality Inn Colony Seven

Comment: - Concerned with alignment and configuration of B/W Parkway interchange.

c. Summary

Almost all the verbal comments and letters received as part of the combined Location/Design Public Hearing expressed concern for individual property. Most of the interested parties wanted to know what direct effect the project would have on their homes and businesses. A few other comments concerned effects on neighborhoods. These have been reproduced in the following section.

3. Draft Environmental Impact Statement Agency Comments

The agencies (federal, state, regional, and local) from whom Draft Environmental Impact Statement comments were requested and

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received are reproduced on the following pages. Comments on the supplemental Section 4(f) Evaluation were also received. Substantive comments in each letter were responded to by a reference to a location in this document where a discussion of that topic can be found. Short responses are also included in the margins of the letters where appropriate.

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RECEIVED

NOV 24 1982

DIRECTOR, OFFICE OF
PLANNING & PRELIMINARY ENGINEERING

November 22, 1982

Maryland Department of Transportation
State Highway Administration
Office of Planning and Preliminary Engineering
Box 717
Baltimore, Maryland 21203-0717

REF: Maryland Route 32

Gentlemen:

I wish to make the following three comments concerning the Maryland Route 32 project in the Odenton area:

- 1) I endorse the general project as badly needed to improve transportation in this area. The proposed Option 2 appears to be well thought out and represents a desirable alignment in the Odenton area.
- 2) Publication of the proposed alignment tends to put a freeze on the development of the affected lands. It is, therefore, requested that right-of-way acquisition be accelerated once the final alignment is established, in order to permit definition and authorized progress in the development of adjacent areas with the known impact of this highway construction.
- 3) The usual partitioning of the neighborhood due to freeway construction occurs all along this alignment. This partitioning effect becomes critical in the area of the Amtrack line where there are two strong barriers bisecting angles to traffic and neighborhood communication represented by both the Amtrack and the new Patuxent Freeway. To alleviate this, it is recommended that serious consideration be given to development of a Jackson Grove Road overpass or underpass for the Amtrack to avoid bisecting the area into four non-connecting neighborhoods.

Sincerely,



Wallace Hayward Baker
1728 Reynolds Street
Crofton, Maryland 21114



Maryland Department of Transportation

State Highway Administration

Lowell K. Bridwell
Secretary

M. S. Caltrider
Administrator

December 9, 1982

RE: Contract No. AV 295-000-070
Maryland Route 32 (Patuxent
Freeway)
From west of the Howard/
Anne Arundel County Line
to west of Maryland Route 3

Mr. Wallace Hayward Baker
1728 Reynolds Street
Crofton, Maryland 21114

Dear Mr. Baker:

Thank you for your letter supporting the proposed improvement for Maryland Route 32 (Patuxent Freeway).

This project is listed in the Development and Evaluation portion of the Draft 1983-1988 Consolidated Transportation Program for completion of Project Planning and Final Engineering (Design) only. Funding for right-of-way acquisition and construction of the ultimate improvement from west of the Howard/Anne Arundel County Line to west of Maryland Route 3 has not been scheduled at this time. However, the construction of a portion of this project has been advanced to the Primary Construction Program section of the Draft Program. This interim improvement, for which funds are scheduled, would begin construction in fiscal year 1987. This would provide two lanes of the ultimate four lanes through Ft. Meade from Maryland Route 198 to Maryland Route 175.

The partitioning effect to the neighborhood to which you refer in your letter is primarily caused by the Amtrak Line, since no crossing exists at Jackson Grove Road. This situation will be improved by the proposed highway improvement "overpassing" the railroad. This overpass would allow access on the west of the Amtrak Line via the proposed Maryland Routes 32/175 interchange to local roads. In addition, coordination during the study has surfaced and considered provisions for an overpass of a future County Road to the Odenton Town Center, proposed by the County in this area. East of the Amtrak Line, a portion of Jackson Grove Road would be relocated and would continue to provide access from

My telephone number is (301) 659-1110

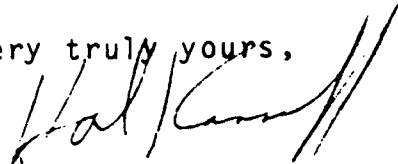
175

Mr. Wallace Hayward Baker
December 9, 1982
Page 2

Maryland Route 170 north of the proposed highway improvement from the Maryland Routes 32/170 interchange. South of the Maryland Routes 32/170 interchange access to this area would continue to be provided via local roads from Maryland Route 170 to Lokus Road. The enclosed map is provided to demonstrate continued access which we feel is adequate.

Again, I thank you for your support of the project and your comments will be considered in the decision process.

Very truly yours,



Hal Kassoff, Director
Office of Planning and
Preliminary Engineering

HK:cms
Enclosure

cc: Mr. Edward H. Meehan
Mr. Wm. F. Schneider, Jr.
Mr. Melvin Stickle

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HAYWARD | BAKER CO.
GROUND MODIFICATION

November 29, 1982

Maryland Department of Transportation
State Highway Administration
Office of Planning & Preliminary Engineering
Box 717
Baltimore, Maryland 21203-0717

Subject: Maryland Route 32

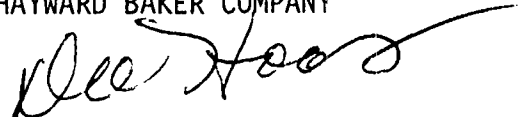
Gentlemen:

While we endorse in principle the re-alignment of Maryland Route 32, under option two, we are concerned that the new Patuxent Freeway along with the existing Amtrak rail line will cause the neighborhood in the vicinity of the proposed freeway Amtrak intersection to become four unconnected neighborhoods.

Publication of the final alignment will enable residents and businesses to know how the new freeway will effect their future plans.

Sincerely,

HAYWARD BAKER COMPANY


D. A. Haas,
Treasurer

DAH:djw

RECEIVED

DEC 3 1982

DIRECTOR, OFFICE OF
PLANNING & PRELIMINARY ENGINEERING



Maryland Department of Transportation

State Highway Administration

Lowell K. Bridwell
Secretary

M. S. Caltrider
Administrator

December 21, 1982

RE: Contract No. AW 295-000-070
Maryland Route 32 (Patuxent Freeway)
From west of the Howard/Anne Arundel
County Line to west of Maryland
Route 3

Mr. D. A. Haas, Treasurer
Hayward Baker Company
1875 Mayfield Road
Odenton, Maryland 21113

Dear Mr. Haas:

Thank you for your letter dated November 29, 1982 supporting the Maryland Route 32 (Patuxent Freeway) project.

Partitioning of the area, to which you refer, is an existing situation caused by the Amtrak rail line. We see this situation improved by our proposed overpass of the railroad. This overpass would allow access on the west of the Amtrak Line via the Maryland Routes 32/175 interchange to local roads. Coordination with Anne Arundel County during this study provides for a future County Road to the proposed Odenton Town Center.

East of the Amtrak Line, a portion of Jackson Grove Road would be relocated and would continue to provide access from Maryland Route 170 north of the proposed highway improvement via the Maryland Routes 32/170 interchange. South of the proposed Maryland Routes 32/170 interchange access would continue to be provided via local roads from Maryland Route 170 to Lokus Road. The enclosed map is provided to demonstrate this access which we feel is adequate.

Again, thank you for your support of this project. Your comments will be considered in the process of selecting an alternate for this project.

Very truly yours,

Hal Kassoff, Director
Office of Planning and
Preliminary Engineering

HK:cms
Enclosure

cc: Mr. Wm. F. Schneider, Jr.

My telephone number is (301) 659-1110



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

178

NOV 3 1982

Handwritten initials and scribbles

Mr. Louis H. Ege, Jr., Chief
Environmental Management
Bureau of Project Planning
State Highway Administration
707 N. Calvert Street
Baltimore, Maryland 21202

Re: Maryland Route 32, Anne Arundel County, Maryland

Dear Mr. Ege:

We reviewed the Air Quality Analysis performed for the above referenced project. Based upon this review, we have no objection to the project from an air quality standpoint. As such, we have rated the document LO-1 in EPA's Reference Category.

We hope that this letter will assist you in meeting your NEPA responsibilities. If we can be of further assistance, please contact Mr. William J. Hoffman at any time. His number is 215-597-2650.

Sincerely yours,

Handwritten signature of John B. Pomponio
John B. Pomponio
Chief
EIS & Wetlands Review Section

6999
NOV 18 1982
PROJECT PLANNING



U.S. Department
of Transportation

**Urban Mass
Transportation
Administration**

REGION III
Pennsylvania, D.C.
Delaware, Maryland,
West Virginia, Virginia

434 Walnut Street
Suite 1010
Philadelphia, Pennsylvania 19106

179

November 9, 1982

*WILL
DO SMITH
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STRICKLES*

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

RE: Draft Environmental Impact
Maryland Route 32
(Patuxent Freeway)

Dear Mr. Schneider:

We have completed our review of the subject document. Our review identified the following comment which should be addressed in the Final EIS:

1. The document should address the impacts of the alternatives on the Odenton Train Station in terms of access changes for transit users both during and after construction.

**REFER TO
SECTION
IV-B**

Thank you for allowing us the opportunity to review this important document. If you have any questions, please contact John R. Caruolo at (215) 597-4179.

Sincerely,

Sheldon A. Kinbar
Director, Office of Planning Assistance



DEPARTMENT OF THE ARMY
 BALTIMORE DISTRICT CORPS OF ENGINEERS
 P.O. BOX 1715
 BALTIMORE, MARYLAND 21203

REPLY TO ATTENTION OF:

NABOP-FW

10 November 1982

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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:

This is in response to the draft environmental impact statement on Maryland Route 32 from the MD Route 32 spur west of the Howard/Anne Arundel County line to MD Route 3, Anne Arundel County, Maryland (Contract No. AW 295-000-070).

According to this report, the preferred alternative would require a stream relocation and several stream crossings. Such work requires Department of the Army authorization pursuant to Section 404 of the Clean Water Act. For more information on this matter it is requested that you contact Mr. Jon Romeo of this office at (301) 962-4252.

Sincerely,

**REFER TO
 SECTION IV-C-3**

L. W. Shearer

L. W. SHEARER
 Chief, Western Shore Permits Section
 Regulatory Functions Branch



NATIONAL SECURITY AGENCY
CENTRAL SECURITY SERVICE
FORT GEORGE G. MEADE, MARYLAND 20755

Serial: N1315
16 November 1982

Will
DeWalt
Melwis
St. James
EGB
181

SUBJECT: Upgrading the SR32/Baltimore Washington Parkway Interchange

TO: Commander
Fort George G. Meade
Fort George G. Meade, MD 20755

1. There are several factors that will, in the very near future, impact upon the NSA traffic patterns:

a. The Agency's facility planning through 1990 proposes a consolidation of activities at Fort Meade. This proposed consolidation, current construction and personnel augmentations will increase our traffic volume by 150 to 175 percent. Today's peak traffic volumes are already taxing, if not exceeding the capability of both the existing road net and the substandard SR32 interchange with the Baltimore Washington Parkway (BWP).

b. The proposed Patuxent Freeway which parallels the NSA complex will direct additional local traffic onto the already congested SR32 and BWP interchange. The left turn traffic pattern on SR32 to BWP ramps and NSA road net will increase substantially.

c. The proposed development of the commercial property between Fort Meade and the Baltimore Washington Parkway will increase the congestion on SR32 between the Agency's main ingress/egress points and the BWP interchange.

2. It has become readily apparent that any one of these factors will seriously impact upon current traffic patterns. The increased number of vehicles within a compressed and congested area utilizing SR32, the interchanges, and executing left turns against traffic will aggravate the existing hazardous conditions. The Agency strongly recommends the upgrading of the SR32/BWP interchange to provide mandatory relief to the Agency and Fort Meade traffic and personnel safety problems.

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Serial: 61315

3. Request your support in presenting this proposal to the State Highway Administrator for accelerated action. The upgrading of the interchange in advance of the Patuxent Freeway construction appears to be the only viable solution to both the Agency and Fort Meade traffic problem.



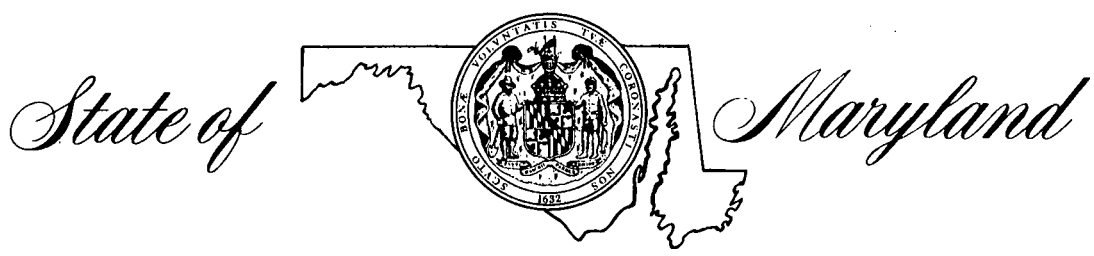
F. X. O'CONNOR
Assistant Director
for

Installations and Logistics

Copy Furnished:

FHA

Balt. District (R. Gingrich)



OFFICE OF ENVIRONMENTAL PROGRAMS
DEPARTMENT OF HEALTH AND MENTAL HYGIENE
201 WEST PRESTON STREET • BALTIMORE, MARYLAND 21201 • Area Code 301 • 383- 3245

Harry Hughes, Governor

Charles R. Buck, Jr., Sc.D. Secretary

November 23, 1982

*Will
De G...
ES...
No...*

Mr. Louis H. Ege, Jr., Chief
Environmental Management
Bureau of Project Planning (Room 310)
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

Dear Mr. Ege:

RE: Contract No. AW 295-000-070
F.A.P. No. FF 162-1 (26)
Maryland Route 32
From Spur West of Howard
County Line to Maryland
Route 3

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 yours,

Edward L. Carter /jfl

Edward L. Carter, Chief
Division of Air Quality Planning
and Data Systems
Air Management Administration

ELC:
NOV 23 AM 8 30
DIVISION OF AIR QUALITY PLANNING
PROJECT PLANNING



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III

6TH AND WALNUT STREETS
PHILADELPHIA, PENNSYLVANIA 19106

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144

WILL
DEFINITE
Habitat
ESE

NOV 5 1982

STATE HIGHWAY
ADMINISTRATION
PROJECT PLANNING

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

Re: Maryland Route 32 Construction (Patuxent Freeway) Anne Arundel Cty., 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. Our specific comments concerning the draft EIS are enumerated below.

1. The preferred alternative is stated to require the channelization of a tributary of Picture Frame Branch. Approximately 1100 feet of stream channel will be replaced by 920 feet of new channel. The draft EIS states that this portion of the Severn Run Watershed has a relatively depressed flora and fauna, primarily due to the discharge of industrial waste and runoff from commercial and residential areas on the west side of Maryland Route 170. We believe that qualitative statements such as this should be supported by water quality data in order to better assess the impact of this channel relocation. Unless this stream is shown to be severely degraded, we would suggest that every effort be made to design the new channel in a manner which would facilitate biological recovery. The provision of boulders, streamside plantings, riffle/pool areas and meanders (to maintain existing stream lengths) may be appropriate means of mitigating project impacts. Since approximately .2 acres of wetlands will also be eliminated in this area, consideration should also be given to providing replacement wetlands adjacent to the relocated channel.

REFER TO
SECTIONS
III-C-3
IV-C-3

2. This project was coordinated at the April 29, 1982 Quarterly Inter-agency Review Meeting held in Baltimore. From our recollection, and from a review of the May 12, 1982 meeting summary prepared by the State Highway Administration, no mention was made of wetland encroachments. According to the draft EIS, approximately 6.6 acres of wetlands will be eliminated at several locations. It appears from the review of the EIS that these encroachments are unavoidable, but no adequate discussion of mitigation is included. We suggest that these encroachments be avoided to the greatest extent possible through minor alignment shifts, reduction in median widths,

REFER TO SECTION IV-C-4
THESE WETLAND IMPACTS WERE DISCUSSED
AT THE APRIL, 1983 QUARTERLY REVIEW
AND IN THE FIELD WITH REPRESENTATIVES
OF EPA, U.S. FWS AND MD DNR, WRA.

and the use of maximum embankment slopes. Furthermore, we recommend that when these impacts are reduced to the greatest extent practicable, replacement wetland areas be investigated to mitigate the unavoidable impacts created by the facility. Proposed mitigation areas should be developed prior to the circulation of the final EIS. This would be consistent with Section 1502.14 of CEQ's Regulations Implementing NEPA, and might facilitate our review of both the final EIS and any applicable Section 404 permits. We would be willing to meet with the State Highway Administration in order to develop acceptable replacement sites.

3. We believe that noise mitigation measures should also be discussed for those sites where noise levels are projected to be substantially higher than ambient levels (Sites 1, 1A, 2, 4, 5, 7, 8, and 12). We would support the use of grading and landscaping as partial mitigation measures where barriers are not feasible.

REFER TO SECTION
IV-E

We hope that these comments will assist you in meeting your NEPA responsibilities. If we can be of further assistance, or if you have any questions, please contact Mr. William J. Hoffman of my staff at 215-597-2650.

Sincerely yours,


John R. Pomponio
Chief
EIS & Wetlands Review Section

Enclosure



180
THOMAS C. ANDREWS
DIRECTOR

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401
(301) 269-3846

December 2, 1982

MEMORANDUM

TO: F. Bryan Gatch, Acting Director
State Clearinghouse

VIA: Michael J. Nelson
Department of Natural Resources

FROM: Karen L. Pushkar *KLP*

SUBJ: State Clearinghouse #83-11-89 - Federal Employment and
Federal Facilities Elements of the Comprehensive Plan
for National Capital

The Department of Natural Resources has reviewed the above referenced project and offers the following comments from the Water Resources Administration.

1. In order of preference, the following alternatives were selected:
 - a. Alternate 3 - no build
 - b. Alternate 2A
Alternate 2B
 - c. Alternate 2C
2. The project will require review and approval under Section 8-1105 of the Natural Resources Article, Annotated Code of Maryland regarding methods of sediment pollution control.
3. The project will require review and approval under Section 8-905 of the Natural Resources Article, Annotated Code of Maryland regarding stormwater management.

4. The project will require waterway construction permits be obtained at Dorsey Run, Little Patuxent River, Midway Branch and Severn Run. The number of permits will depend on the final alternate selected and the final alignment of the project.

If you should have any questions regarding the above comments, please contact the Water Resources Administration, Watershed Permits Division, at (301) 269-2265.

PFC:klp



U.S. Department of
Transportation
Office of the Secretary
of Transportation

Took
Memorandum

HEV-10

148

Subject: Maryland - Draft EIS
MD Route 32 (Patuxent Freeway)
FHWA-MD-EIS-82-02-D
FAP No. FF-162-1(26)

Date: DEC 6 1982

From: Joseph Canny, Deputy Director *Joe Canny*
for Environment and Policy Review, P-37

Copy to
Title of

To: Leon N. Larson, Director
Office of Environmental Policy, FHWA/HEV-1

We appreciate receiving for review a copy of the subject draft EIS. We offer the following comments for your consideration.

The EIS summary indicates that the proposed project will displace 24 residences and that it will be necessary to provide housing as a last resort. The discussion concerning displacements in the body of the EIS indicates that ample replacement housing is available for all displacees from either build alternate. Although Appendix B summarizes the relocation assistance program, the final EIS should contain a better description of the application of the relocation assistance program to the proposed project.

REFER TO
SECTION
IV-A-1

The draft EIS discusses alternate 2, the preferred alternate, and alternate 3, the no build alternate. The final EIS should describe all alternatives considered.

Thank you for the opportunity to comment.

REGIONAL PLANNING COUNCIL
2225 North Charles Street
Baltimore, Maryland 21218

RPC Meeting December 17, 1982

REVIEW AND REFERRAL MEMORANDUM

Project: 82-311 Draft EIS, Md. Route 31 (Patuxent Freeway) Md. 32 Spur. The proposed action involves the construction of a full controlled-access freeway in Anne Arundel County near Fort Meade and Odenton. Maryland Route 31 is intended to provide an improved regional east-west highway serving Anne Arundel County and Howard Counties, as well as statewide traffic between Western Maryland and the Eastern Shore.
Referral Source: Department of State Planning

COMMENT

Recommendation: This project was endorsed by the Transportation Steering Committee via a telephone poll conducted on December 16, 1982.
ENDORSEMENT IS RECOMMENDED

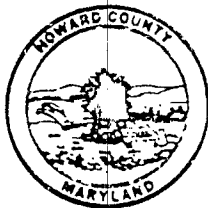
I HEREBY CERTIFY that as a result of a telephone poll of Regional Planning Council members, conducted on December 22, 1982, staff comments were endorsed.

December 22, 1982
DATE

WALTER J. KOWALCZYK, JR.
Walter J. Kowalczyk
Executive Director

THOMAS G. HARRIS, JR.
DIRECTOR
992-2350

*will
DeSantis
Melway
ESB
Sturveys*



DIVISION OF LAND DEVELOPMENT
AND ZONING ADMINISTRATION
JOHN W. MUSSELMAN, CHIEF
992-2353

190

DEAF TELETYPE NUMBER
461-1111

DIVISION OF COMPREHENSIVE AND
TRANSPORTATION PLANNING
AMAR S. BANDEL, CHIEF
992-2357

OFFICE OF PLANNING & ZONING OF HOWARD COUNTY

GEORGE HOWARD BUILDING
3430 COURT HOUSE DRIVE, ELLICOTT CITY, MARYLAND 21043

*Mr. Schneider
FIF*

December 28, 1982

Mr. Hal Kassoff, Director
Office of Planning and Preliminary Engineering
Maryland Department of Transportation
State Highway Administration
P. O. Box 717
707 North Calvert St.
Baltimore, Maryland 21203

Re: Contract AW 295-000-070
F.A.P. No. FF 162-1-(26)
MD Route 32 (Patuxent Freeway) from the
MD Route 32 Spur West of the Howard/Anne Arundel
County Line to MD Route 3

Dear Mr. Kassoff:

In response to your letter of October 29, 1982, concerning the Draft Environmental Impact Statement for the above mentioned contract, I have enclosed comments and recommendations from our Department of Public Works by letter of September 22, 1982, and from our Division of Comprehensive and Transportation Planning by letter of December 27, 1982, for your use and information.

If you have any specific comments on the enclosed, please call this office at your convenience.

Sincerely yours,

Thomas G. Harris, Jr.
Thomas G. Harris, Jr.
Director

TGH, Jr.:st
Enclosures

cc: Gerald W. von Mayer
Amar S. Bandel
Elizabeth A. Calia
File: 10.224

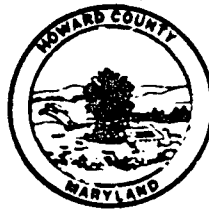
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DEC 29 1982

DIRECTOR, OFFICE OF
PLANNING & PRELIMINARY ENGINEERING

THOMAS G. HARRIS, JR.
DIRECTOR
992-2350

DEAF TELETYPE NUMBER
481-1111



191
DIVISION OF LAND DEVELOPMENT
AND ZONING ADMINISTRATION
JOHN W. MUSSELMAN, CHIEF
992-2353

DIVISION OF COMPREHENSIVE AND
TRANSPORTATION PLANNING
AMAR S. BANDEL, CHIEF
992-2357

OFFICE OF PLANNING & ZONING OF HOWARD COUNTY

GEORGE HOWARD BUILDING
3430 COURT HOUSE DRIVE, ELLICOTT CITY, MARYLAND 21043

December 27, 1982

RECEIVED

TO: Thomas G. Harris, Jr., Director
Office of Planning and Zoning

FROM: Gerald W. von Mayer, Acting Chief
Division of Comprehensive
and Transportation Planning

RE: Contract AW 295-000-070
F.A.P. No. FF 162-1-(26)
MD Route 32 (Patuxent Freeway) from the
MD Route 32 Spur West of the Howard/Anne Arundel
County Line to MD Route 3

DEC 27 1982

OFFICE OF PLANNING
AND ZONING
OF HOWARD COUNTY

As you had requested in your November 5, 1982 memorandum, this office has reviewed the Draft Environmental Impact Statement (EIS) on the above mentioned highway contract for MD Route 32. Both the Division of Comprehensive and Transportation Planning and the Department of Public Works have completed their review of the Draft EIS and offer the following comments for that portion of the EIS that relates to Howard County. (The comments noted below were already sent to Mr. Frank DeSantis, Project Manager, Bureau of Project Planning, State Highway Administration, on October 29, 1982).

- . Page 31 - "The three counties in the Fort Meade area are currently updating their General Plans..." The Howard County General Plan was adopted in May 1982, and therefore, the above should be revised accordingly. Also, a copy of the General Plan should be sent to the State Highway Administration. REVISED AS NOTED
- . Page 32 - "MD 32 (west of Baltimore/Washington Parkway), a new freeway facility, is under construction to U.S. Route 29." The above limits should extend to Pindell School Road, not to U.S. 29. REVISED AS NOTED
- . Dorsey Run Road should come into MD 32 from a more easterly angle, so that the existing home, which appears on the EIS exhibit, is not in the path of the relocation.
- . Service Road D, which has already been constructed, would require modifications in order for the Dorsey Run Road intersection to be upgraded to an interchange as shown on the exhibit.

THESE CHANGES
HAVE BEEN MADE
ON THE MAPPING

192

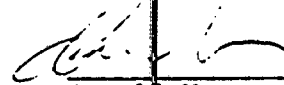
Thomas G. Harris, Jr.

-2-

December 27, 1982

Additionally, we have attached for your information the comments of Elizabeth Calia, Chief, Division of Roads, Bridges and Storm Drains. These comments have also been forwarded to Frank DeSantis.

Should you have any questions pertaining to this EIS, do not hesitate to call me.



Gerald W. von Mayer

GWvM/sg

Attachment

cc: Elizabeth A. Calia
Amar S. Bandel
David B. Moss
File: TR-2(c)

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
INTER-OFFICE MEMORANDUM

193

September 22, 1982

MEMO TO: Amar Bandel, Chief
Division of Comprehensive
& Transportation Planning

FROM: Elizabeth A. Calia, Chief *EAC*
Roads, Bridges & Storm Drainage Div.

SUBJECT: MD 32 eastward to MD 3 in Anne Arundel County

RECEIVED

DEC - 8 1982

DIVISION OF COMPREHENSIVE
& TRANSPORTATION PLANNING
OF HOWARD COUNTY

In response to your letter of September 17, 1982, please be advised that The Bureau of Engineering considers that the future interchange planned for the intersection of Dorsey Run Road (Relocated) and MD 32 will be most beneficial to the area.

It should be recognized that "Spur D" has been constructed and opened to traffic. The 400' scale map which was enclosed with your cover letter does not show the proper location of Spur D as it exists today.

The current status of County Capital Project J-4070 -Dorsey Run Road is as follows:

On September 9th, the County advertised expressions of interest to obtain a consultant for a preliminary design study of the most feasible alignment for the relocation of Dorsey Run Road between Annapolis Junction Road and the Maryland House of Correction. The Expression of Interest will be evaluated in early October and a consultant should be selected during November. It is anticipated that the preparation of the report will take approximately three (3) months and should be finalized during the Spring of 1983. If the Office of Planning & Zoning could suggest a contact person with the State Highway, we will be able to furnish them any preliminary information during the course of the development of the study. When the study is complete, we would expect to share the report with the Office of Planning & Zoning and with the State Highway.

EAC/ab

cc: Dave Moss
W. E. Riley
Gerald Von Mayer

RECEIVED

SEP 23 1982

DIVISION OF COMPREHENSIVE
& TRANSPORTATION PLANNING
OF HOWARD COUNTY

DEC 7, 1983

*The latest version is similar to the earlier.
All these comments still apply*

Elizabeth A. Calia

194



Federal Emergency Management Agency

Region III 6th & Walnut Streets Philadelphia, Pennsylvania 19106

December 9, 1982

*will
Dorsey
Highway
EIS
Articles*

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

*Trans
Copy*

Dear Mr. Schneider:

We have received the Draft Environmental Impact Statement (EIS) for the Maryland Route 32, Patuxent Freeway.

Based upon the Agency's review of the draft EIS, the construction of the proposed highway improvement encroaches upon the channelways of the Little Patuxent River and tributary, Dorsey Run and the Picture Frame Branch floodplain districts.

When the hydrologic/hydraulic techniques become finalized, we are interested in reviewing the mitigative measures employed to offset any rise in flood heights.

Thank you for the opportunity to review the draft EIS.

Sincerely yours,

Frederick P. Schmauck III

for Walter P. Pierson
Chief
Natural and Technological
Hazards Division



United States
Department of
Agriculture

Soil
Conservation
Service

Room 522, 4321 Hartwick Road
College Park, Maryland 20740

195

WILL
DESIGNING
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December 13, 1982

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:

We have reviewed the draft environmental impact statement for construction of Maryland Route 32 (Patuxent Freeway). It appears that the impact of the project on prime agricultural soils has been adequately addressed, and that there is no practicable alternative to the proposed action. We have also noted that appropriate erosion and sediment control and stormwater management measures will be implemented during construction.

Thank you for this opportunity to comment on the draft report.

Sincerely,

GERALD R. CALHOUN
State Conservationist

1982 DEC 20 AM 8 59

STATE HIGHWAY
ADMINISTRATION
PROJECT PLANNING



The Soil Conservation Service
is an agency of the
Department of Agriculture

SCS-AS-1
10-79

196



DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
PHILADELPHIA REGIONAL OFFICE
CURTIS BUILDING, SIXTH AND WALNUT STREETS
PHILADELPHIA, PENNSYLVANIA 19106

Dennis
Gytha

W.C.
R. (S)
M. (S)
D. (S)

IN REPLY REFER TO:

REGION III

JAN 19 1983

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:

We have completed our review of the Draft Environmental Impact Statement (DEIS) for Maryland Route 32 (Patuxent Freeway) from the Maryland Route 32 spur west of the Howard/Anne Arundel County line to Maryland Route 3 and offer the following comments:

1. Discussion of the need for the project in Chapter 1 uses traffic figures derived from demographic and socio-economic projections starting from an apparent base year of 1975 and extending to 1995. Since the DEIS was distributed near the end of 1982 a more recent base year such as 1980 would have been more appropriate. At the same time, it would have provided an opportunity to verify the growth rates projected in the Baltimore Region 3-C Process in 1975. In this connection we feel that the reference on p. 3 to "the present level of 35,300 vehicles" is confusing since at the indicated average annual rate of growth, that figure could not be representative of 1982 traffic.
2. Although not a major problem, the poor quality in portions of Figures II-2 through II-6 diminished their value in reviewing alternatives which had been rejected.
3. Consideration of the economic setting on pages 24 and 25 is based on 1970 census data and the 1974 RPC economic model for the region. What, therefore, is the basis for the expressed belief that at least 30 percent of all Federal employees residing in the three-county area are presently working at Fort Meade?

THE MOST RECENT INFORMATION HAS BEEN USED AS IT HAS BECOME AVAILABLE

THIS IS BASED ON ESTIMATES MADE BY FORT MEADE OFFICIALS IN THEIR INSTALLATION EIS

197

4. In the discussion of Water Uses on p. 38, mention is made of four significant surface water discharges affecting water quality in the study areas. Unfortunately, nothing is stated regarding the degree to which these discharges actually affect water quality. Since the DEIS makes a reference to water quality we believe that there should be a quantitative expression of what water quality levels are. REFER TO SECTION IV-C-3

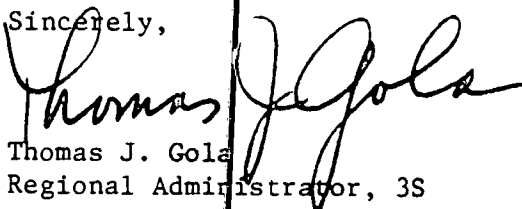
5. On p. 51, the DEIS notes that Maryland Route 32 will improve access to the Amtrak Rail System and the Amtrak commuter station near Annapolis Road (Maryland Route 175) at Lokus Road, and induce new commercial enterprises and industry to locate in the corridor. Unfortunately, we find that the DEIS gives little consideration to the indirect impacts resulting from improved access or induced commercial and industrial growth. As a simple example, would improved access to the commuter station result in local traffic congestion? Are there enough parking spaces to handle increased commuter station usages? Improved access can raise a host of other development-related problems and indirect impacts which the document should surface and discuss. REFER TO SECTION IV-B

6. In the flood hazard evaluation on pages 67 and 68 there is no reference to compliance with the requirements of Executive Order 11988. REFER TO SECTION IV-C-1

7. Through Anne Arundel's Community Development Block Grant Program measures for community improvement are undertaken in various parts of the County. Insofar as we can determine, Russell Dounnik, the County's Community Development Administrator was not afforded an opportunity to comment on the DEIS. We recommend that if it is still possible, he be afforded that opportunity. THE DRAFT EIS WAS CIRCULATED IN ANNE ARUNDEL COUNTY

Thank you for the opportunity to comment.

Sincerely,

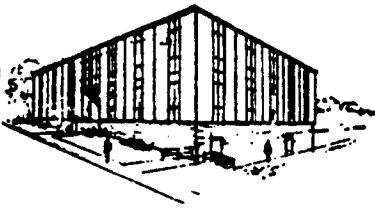


Thomas J. Gola
Regional Administrator, 3S

198

PHONE: 987-4050
867-4050

*Will
Definitely
Holdings
ES
Strikes*



MAXWELL V. FRYE, JR.
CHIEF OF POLICE

Police Department

ANNE ARUNDEL COUNTY
201 MD. RT. 3, NORTHBOUND LA.
MILLERSVILLE, MD. 21108

February 9, 1983

Mr. Frank DeSantis
Maryland Department of Transportation
State Highway Administration
P. O. Box 717
Baltimore, Maryland 21203

Dear Mr. DeSantis:

In response to your letter of January 27, 1983, regarding the Patuxent Freeway Project and its impact on the proposed police station near Odenton, it appears the question is more or less academic at this time. We are experiencing problems with the acquisition of federal land and it does not appear that a solution will be reached in the near future.

The sketches of the project you supplied us with are greatly appreciated as they may assist us in planning of another site in that area.

Yours truly,

William S. Lindsey
William S. Lindsey
Chief of Police

WSL/ae



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

In Reply Refer To:
ER-82/1785

MAR 15 1983

199

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

✓ INFO																		RECEIVED	3/17	
	ACTION																			

Dear Mr. Elinsky:

This is in response to the request for the Department of the Interior's comments on the draft environmental statement for SR-32 (Patuxent Freeway), Anne Arundel County, Maryland.

GENERAL COMMENTS

We are aware of the additional planning that has been undertaken since the draft environmental statement was circulated for review, and we now understand that the Patuxent Freeway project will involve only a cross-over of the Baltimore-Washington Parkway (B-W Parkway) and will not include modifications to the existing interchange. This change in the project's scope should be addressed in the final statement.

PRELIMINARY SECTION 4(f) COMMENTS

Since the project will use land from the B-W Parkway, a component of the National Park System under the jurisdiction of the National Park Service (NPS) of this Department, a supplemental Section 4(f) statement should be prepared and circulated for review prior to completion of the final environmental statement for this project. We are willing, however, to provide the following preliminary comments to assist you in the preparation of such a statement.

Because of the linear nature of the B-W Parkway, we concur that there are no feasible and prudent alternatives to the use of some Parkway land by the proposed crossover. This concurrence applies only to a crossover, and not to modifications of the existing interchange. Although we are cognizant of the problems associated with the SR-32/B-W Parkway interchange, especially as they affect National Security Agency and Ft. Meade traffic, we believe this is a separate problem not yet ripe for decision, and we agree with the elimination of interchange modifications from the Patuxent Freeway project.

A SUPPLEMENT SECTION 4(f) EVALUATION HAS BEEN CIRCULATED AND REVIEWED BY DOI AND U.S. EPA.

A FINAL SECTION 4(f) STATEMENT HAS BEEN INCLUDED IN THIS DOCUMENT.

REFER TO SECTION 11-B-2

200

Mr. Emil Elinsky

2

However, the proposed alignment of the freeway at the B-W Parkway crossover is unsatisfactory because it does not allow sufficient room to accommodate the probable future modification of the existing interchange while at the same time avoiding the need to acquire private lands. Thus we recommend early consideration of a shift in alignment of the proposed freeway at the B-W crossover area. With the understanding that agreement will have to be reached on interchange design and location with the NPS, we would have no objection to the State proceeding with obtaining location approval from the Federal Highway Administration for the proposed Patuxent Freeway project.

With regard to measures to minimize harm, we recommend that appropriate measures be developed in consultation with the NPS, and that the results of such consultation be included in the supplemental Section 4(f) statement. Mitigation measures that should be considered include careful location of the crossover alignment to avoid adverse impacts to Parkway lands and the users of such lands, architecturally compatible bridge designs, adequate landscaping and screen plantings, and such other measures as may be recommended by the NPS.

REFER TO SECTION IV-G

FISH AND WILDLIFE COORDINATION ACT COMMENTS

Where streams are to be channelized, we would suggest that every effort be made to recreate an equal length of new channel and that the design include plantings of indigenous trees and shrubs. Wetland losses should be mitigated by improving/expanding existing wetlands or creating new wetland areas within the right-of-way.

REFER TO SECTIONS IV-C-3 IV-C-4

A dam at Simonds Bridge (Rt. 198) presently blocks the main stem of the Little Patuxent River to upstream migration of anadromous fish. Since the Rt. 198 bridges are to be replaced, we would urge that the State Highway Administration explore the possibility of removing the dam as part of the bridge contracts. Permits from the Corps of Engineers may be required for some of the proposed work such as wetland fills and bridges. We believe that most project features will not require individual public notices. In any case, we would offer no objection to the permits provided adequate mitigation had previously been agreed upon.

THIS DAM DOES NOT FALL WITHIN SHA JURISDICTION

SUMMARY COMMENTS

The preliminary Section 4(f) comments in this letter are provided to give you an early indication of our thoughts about the Section 4(f) information and involvements. You may be assured of our timely handling of any subsequent Section 4(f) material sent to us for review.

As this Department has a continuing interest in the project we would be willing to cooperate and provide technical assistance in further project assessment and in the development of additional documentation for review.

201

Mr. Emil Elinsky

3

The field officer assigned responsibility for coordination and technical assistance about park and recreational matters is: Regional Director, National Capital Region, 1100 Ohio Drive, S.W., Washington, D.C. 20242 (Telephone: FTS 462-6612 or Commercial (202) 462-6612). For fish and wildlife matters please contact the Field Supervisor, U.S. Fish and Wildlife Service, 1825B Virginia Street, Annapolis, Maryland 21401 (Telephone: FTS 922-2007 or Commercial (301) 269-5448).

We appreciate the opportunity to provide these comments.

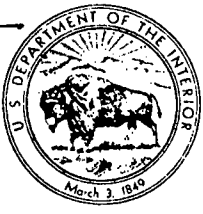
Sincerely,



Bruce Blanchard, Director
Environmental Project Review

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

202



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

ER 83/490

JUN 10 1983

Mr. Emil Elinsky
Division Administrator
Federal Highway Administration
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 Section 4(f) Evaluation for SR-32 (Patuxent Freeway), Anne Arundel County, Maryland.

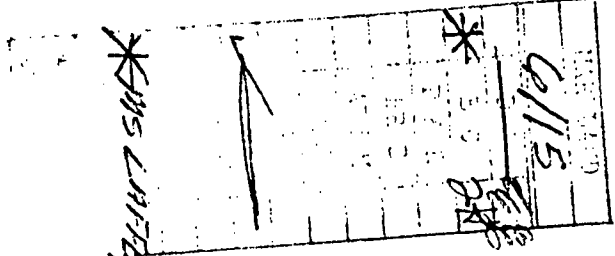
SECTION 4(f) EVALUATION COMMENTS

We have carefully reviewed this draft Section 4(f) evaluation and find that it does not represent the actual scope of the use of parkland as agreed to in the February 1983 meeting among officials of your agency, the Maryland Department of Transportation, the U.S. Army (Fort Meade) and the National Park Service.

We understand that agreement was reached in that meeting that the Patuxent Freeway project will involve only a crossover of the Baltimore-Washington Parkway (which includes Ramp A and Ramp B) without any modifications to the existing interchange. However, the subject Section 4(f) evaluation (page 3) notes that the Freeway project "... crosses over the Baltimore/Washington Parkway with the interchange options" Three new interchange options are then described: A, B, and C. According to the "Legend" on the 3 figures: #8, #9, and #10 respectively for each option, solid bold lines represent the "Proposed Roadway Improvement" which would be implemented as part of the project. The "Legend" identifies other possible highway improvements "To Be Constructed at Future Date" with bold dashed lines. If we are reading the Figures correctly, the interchange will be reconstructed as part of the project which is contrary to the February 1983 meeting agreement. Moreover, Page 7 identifies the acreage needed for each full interchange option.

In order that there is no misunderstanding about the scope of the project, figures which depict only the Patuxent Freeway project, without any interchange improvements, need to be developed for the Section 4(f) document. Also, the text must be amended to accurately describe the park lands to be used, including those for which there will be aerial rights only.

Section VI of the draft Section 4(f) evaluation concerns "Mitigation Measures." Because this freeway project has not yet progressed to a point where there are design and other plans for us to evaluate, we are unable to be specific about mitigation measures.



Mr. Emil Elinsky

203
2

However, for this project only, we would be willing to concur in our subsequent review of a revised draft Section 4(f) evaluation, to your compliance with the second proviso of Section 4(f), if it specifies the following:

The Federal Highway Administration and the Maryland Department of Transportation will closely consult and confer with the Regional Director, National Capital Region, National Park Service, in the development of the final design, construction and landscaping plans and specifications. The National Park Service must approve such plans and specifications, as they relate to the traversing of parklands, prior to any final project approvals by FHWA. In developing the plans and specifications, all parties agree that the objective will be to maintain the aesthetics and character of the Baltimore-Washington Parkway as an important gateway to our Nation's Capital.

It is relevant for us to note that the foregoing condition about our approval will be included in any right-of-way document we will process. Any agreement on the use of parkland will be based on an exchange of interests between the National Park Service and the State of Maryland similar to the Route 193 agreement.

The penultimate sentence on Page 10 of the draft Section 4(f) evaluation states:

"A letter from the Office of the Secretary, U.S. Department of the Interior (March 15, 1983) indicated agreement there are no prudent and feasible alternatives to crossing the parkway and the proposed improvements to the interchange."

This is incorrect and to clarify our position, we would repeat here what our March 15, 1983 letter said.

"Because of the linear nature of the B-W Parkway, we concur that there are no feasible and prudent alternatives to the use of some Parkway land by the proposed crossover. This concurrence applies only to a crossover, and not to modifications of the existing interchange."

SUMMARY COMMENTS

Based on the contents of the April 1983 draft Section 4(f) evaluation document, the Department of the Interior objects to Section 4(f) approval of the Patuxent Freeway project and would defer action on any right-of-way application until we are able to concur to a Section 4(f) document which reflects the actual scope of the proposal and the understandings reached in earlier consultations. We will gladly give expeditious processing to review and comments on a revised draft Section 4(f) evaluation.

204

Mr. Emil Elinsky

3

We would be pleased to furnish technical assistance about the subjects discussed in this letter. The Regional Director, National Capital Region, National Park Service, 1100 Ohio Drive, SW, Washington, D. C. 20242 (FTS: 426-6612; comm. 202-426-6611) is assigned this responsibility.

Sincerely,


Bruce Blanchard, Director
Environmental Project Review

cc: Mr. Hal Kassoff
Director, Office of Planning
and Preliminary Engineering
Maryland Department of Transportation
P.O. Box 717
Baltimore, MD 21203-0717

Fort George G. Meade
Commander
Fort Meade, MD 20755
ATTN: AFZ1-FE-MP (Galiber)



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

205

will
discuss
with
S. H. H. H.
GBC
MAY 12 1983

Mr. William F. Schneider, Jr.
Chief, Bureau of Project Planning
Maryland State Highway Administration
707 N. Calvert Street
Baltimore, Maryland 21220

Re: Section 4(f) Evaluation, Maryland Route 32, Howard and Anne Arundel
Counties, Maryland

Dear Mr. Schneider:

Thank you for the opportunity to review the above referenced document. Based upon our review, it appears that involvement with Section 4(f) property is unavoidable. Therefore, we have no objection to further development of the project based solely on impacts to Section 4(f) land.

However, as stated in our November 30, 1982 comments on the draft EIS, we are concerned over the project's wetland, stream relocation, and noise impacts. Since these concerns were not addressed in the Section 4(f) statement, we continue to rate the project ER-2 in EPA's Reference Category. We assume that our concerns will be adequately addressed in the final EIS.

We hope that these comments assist you in meeting your NEPA responsibilities. If you have any questions or if we can be of further assistance, you may wish to contact Mr. William J. Hoffman of my staff at 215-597-7880.

Sincerely,

Henry P. Brubaker
Chief, Planning and
Analysis Section



206
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

*Hein
ESE-*

Mr. Louis H. Ege, Jr.
State Highway Administration
P.O. Box 717/707 North Calvert Street
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. 32 from MD Rt. 3 to the MD Rt. 32 spur west of the Anne Arundel county line, as described in your letter to me of May 20, 1982.

Sincerely,

G. J. Taylor
Gary J. Taylor
Nongame & Endangered
Species Program Manager

GJT:ba

cc: C. Brunori
M. Carlisle

207



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, Jr.
Bureau of Project Planning
Maryland Dept. of Transportation
State Highway Administration
P.O. Box 717
707 N. Calvert Street
Baltimore, MD 21203

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 proposed construction of Maryland Route 32 (from Maryland Route 3 to the Maryland Route 32 spur west of the Anne Arundel County line), Anne Arundel and Howard Counties, Maryland.

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). Two of the three candidate plant species (placed under review in the Federal Register to determine suitability for listing) which occur in Anne Arundel County could be present in the project area. These are Juncus caesariensis and the Swamp pink, Helonias bullata. 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



208

JAMES B. COULTER
SECRETARY
LOUIS N. PHIPPS, JR.
DEPUTY SECRETARY

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
CAPITAL PROGRAMS ADMINISTRATION
TAWES STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401
(301-269-3656)

FRED L. ESKEW
ASSISTANT SECRETARY
FOR CAPITAL PROGRAMS

August 18, 1982

Mr. Louis H. Ege, Jr.
Chief, Environmental Management
Maryland Department of Transportation
P.O. Box 717
707 N. Calvert Street
Baltimore, Maryland 21203

Dear Mr. Ege:

The Natural Heritage Program has reviewed the attached project. We recommend all precautions be taken to minimize any sedimentation or other disturbances to water quality in Dorsey Run, Little Patuxent River.

The Glassy Dater's (Etheostoma vitreum) world-wide distribution is limited to Maryland, Virginia and North Carolina. It is endangered in Maryland and rare throughout its range. In Maryland it has been collected in Anne Arundel County (Dorsey Run, Little Patuxent River), Howard County (Middle Branch Patuxent), Harford County (Winters Run) and Prince George's County (Western Branch, Northwest Branch).

Thank you for contacting Heritage and please do so again.

Respectfully,

Jeanne Connors
Jeanne Connors
Data Manager

JC:mcs
Attachment

209



Maryland Historical Trust

March 14, 1979

Mr. Eugene T. Camponeschi, Chief
Bureau of Project Planning
State Highway Administration
300 West Preston Street
Baltimore, Maryland 21203

Re: Md. 32 from Howard
County line to US 3
AW 295-000-070
F.A.P. #FF 162-1 (26)

Dear Mr. Camponeschi:

Enclosed please find a list of historic sites located in the vicinity of the subject project. This list represents the results of a preliminary reconnaissance of the study area. A map showing the locations of these sites is also included. Boundaries for all sites may be considered equivalent to the present tax parcel.

We hope that this provides the initial information you require. We will be happy to provide further information at your request.

Sincerely,

Peter S. Kurtze

Peter Kurtze
Historic Sites Surveyor

Peggy Weissman
Peggy Weissman
Historic Sites Surveyor

Rita Suffness
Rita Suffness
Researcher

KWS/van
Enclosures

210

PRELIMINARY CORRIDOR RECONNAISSANCE
Md. 32 from Howard County Line to US 3

<u>Site</u>	<u>Level of Significance</u>
A. All Saints Church Washington Street, Annapolis Junction	Local
B. Wood (Dorsey) House On dirt road at end of Washington Street	Probable National Register
AA- Grasslands 94 North side of Rt. 32 between Jolly Acres Road at I-295	Probable National Register
C. House at Welch's Trailer Park Rt. 198	Local
D. (Watts) House Odenton Road at RR station	Probable National Register
E. Jones House SW corner of Lokus Rd. at Md. 175	Probable National Register
F. Owens House 334 Lokus Road	Local
G. Smitson House 350 Lokus Road	Local
H. House on Morgan Road Opposite Dukens	Local
I. House on west side of Morgan Road At intersection with Lokus	Local
J. Green house on south side of Hale Street Between Dare and Lokus	Local
K. House 327 Nevada	Local
L. (Murray) House Odenton Road, opposite Patuxent	Local
M. Red house West side of Patuxent at intersection with Odenton	Local

all

<u>Site</u>	<u>Level of Significance</u>
N. Severn Run Farm East side of Md. 170, north of Old Mill Road	Probable National Register
AA- Stone House and Barn 170 519 Burns Crossing Road	Probable National Register
O. (Rogers) House East side of Burns Crossing Road south of Md. 32	Local
P. Farmhouse and outbuildings West side of Burns Crossing Road south of Md. 32	Local
Q. Farmhouse and outbuildings West side of Gambrills Road Between Md. 32 and Dicus Mill Road	Local
R. House East side of Gambrills Road Between Md. 32 and Dicus Mill Road	Local
S. (Clemens) House West side of Burns Crossing Road At intersection with Md. 175	Local
T. (Fousby) House North side of Md. 175 opposite Old Dairy Farm Road	Local
U. House and outbuildings North side of Md. 175	Probable National Register
V. House on D.C. Children's Center Property South of Rt. 32, East of I-295	Local

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Maryland Historical Trust

September 3, 1981

Mr. Richard S. Krolak
Chief, Environmental Management
Bureau of Project Planning
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

Re: Maryland Route 32 from Howard County Line to
Annapolis Junction
AW 295-000-070
F.A.P. FF 162-1 (26)

Dear Dick:

We appreciate receiving for review a copy of Maureen Kavanagh's report on the initial survey of the proposed improvements to Route 32 in Anne Arundel County. Wayne Clark and Al Luckenbach have reviewed the report and discussed their findings with me. The report is sufficiently detailed for us to concur with the findings of no significant sites in the eastern two-thirds of the area surveyed. As the western third of the area was not surveyed, and given the location of this area around the Patuxent drainage, I agree with the recommendations for additional work in this area. Initial survey and assessment should be conducted when the various alternatives are developed, so that the archeological data is available for consideration during the selection of the final alternate.

While my letter of September 1 on the Route 270 project addresses several of our general needs concerning reports of this nature, I would like to address again some of the clarifications for this report which would aid us in our evaluation. The report should provide expanded discussion on the nature of the proposed development and the current conditions encountered in the survey. For example, the report should state that the right-of-way for the eastern portion of the road has already been graded in preparation of proposed highway construction. Since only areas of high probability were looked at, it would have been useful for the report to discuss possible reasons why nothing was found and to elaborate on the predictive value, if any, of the other surveys conducted in the area as cited in the previous research section. A statement should also be included which discusses the archeological potential in the areas not surveyed (based on the results in the survey area and other data). The ground cover maps would be more useful if the nature of the vegetation or disturbance noted was specified (developed highway right-of-way, housing development, etc.).

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Mr. Richard S. Krolak
September 3, 1981
Page 2

I hope that these items will be incorporated into the final report, and I appreciate your support in this matter. Please contact Wayne Clark should have any questions about this review.

Sincerely,



J. Rodney Little
Director/State Historic
Preservation Officer

JRL/WEC/mf

cc: Ms. Maureen Kavanagh
Mr. Anthony F. Christhilf
Mr. R. Allen Irvine
Mr Joe [unclear]
Mr Frank [unclear]

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Maryland Historical Trust

July 29, 1982

Mr. Louis H. Ege
Environmental Management Section
Bureau of Project Planning
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21203

Re: Maryland Route 32 Spur West of the Howard County Line to Maryland Route 5

Dear Mr. Ege:

Thank you for your letter concerning historic sites in the vicinity of Fort Meade in Anne Arundel County. We have completed our evaluation of the levels of significance for the Lowman Farm and the Grasslands Farm.

We believe the Lowman Farm to be eligible for the National Register. Significant as a mid-19th century farmstead, the Lowman Farm appears to have been one of the most prosperous farms in the Odenton area. Few farmhouses with such integrity and relative elegance remain in the area today. The house possesses integrity of location, workmanship, setting and materials and the design conveys a sense of the 19th century period during which it was built.

We believe the Grasslands Farm to be eligible for the National Register as well. This farm's significance in black history is directly related to its significance as an unusually intact mid-19th century plantation. In his book Search and Home: Preserving a People's Culture, (Temple University Press, 1982), George W. McDaniel, who currently serves as Director of Research and Special Projects at the Center for Southern Folklore, provides in-depth research on the houses and culture of black slaves and tenant farmers in Southern Maryland. In referring to the building crafts of slaves McDaniel states, "Their skills are most clearly illustrated and documented at Grasslands, a farm established in the 1850's near present-day Fort Meade in Anne Arundel County, where slaves constructed the brick main house and four frame slave houses, whose walls they insulated with leftover bricks they had fired for the main house". Furthermore, he notes that slave cabins insulated with brick nogging, such as the one remaining at Grasslands, are very rare in the Southern United States.

Mr. McDaniel's research on Grasslands appears to have been based on a diary written by the original owner of the property, William A. Anderson. In addition to building the main house and slave cabins, the diary reveals that the slaves dug the ice pond and built its dam and an ice house; built and fired a brick and lime kiln; quarried the stone for the barn's foundation and "raised" it on August 29-30, 1853; and built the corn crib in 1854.

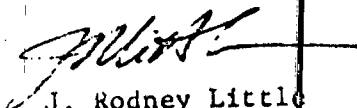
Louis H. Ege
July 29, 1982
Page 2

We believe the plantation's importance in black history has been overlooked in your documentation. We suggest you amend the significance section of the form with additional information from the diary and Mr. McDaniel's work. The plantation also appears to be a prime site for the study of historic archeology and this potential should be noted. Furthermore, there are several deficiencies in the descriptive portion of the form which need to be corrected:

1. The two-story porch attached to the middle part of the house abuts it on the southwest facade, not the northeast elevation.
2. The roofline of the middle section of the house is asymmetrical. This allows it to extend from the house on the southwest elevation and cover the enclosed second-story of the porch.
3. A description of the southwest elevation of the largest part of the house has been omitted. This elevation, with its eight 6/6 sash windows, is the front and main facade of the house. A photograph of this facade should also be included.

If you have any questions, please call Ms. Kim Kimlin at 269-2438.

Sincerely,


 J. Rodney Little
 Director/State Historic
 Preservation Officer

JRL/KEK/mf

cc: Mr. Bruce MacDougal
 Ms. Rita Suffness
 Mr. Anthony F. Christhilf
 Ms. Keren D. Dement



Maryland Historical Trust

September 29, 1982

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

Re: Maryland Route 32
From Md. Route 32 Spur
West of Howard County Line
to Md. Route 3

1982 OCT 6 AM 8 50
STATE HIGHWAY
ADMINISTRATION
PROJECT PLANNING

Dear Mr. Ege:

Thank you for your letter of September 20, 1982 concerning the effect of the above project on significant historic sites. We believe this project will have no adverse effect on Grasslands or the Lowman Farm, properties which are considered to be National Register eligible by the SHPO. Because of this determination of no adverse effect you must request the comments of the Advisory Council. Please send your request to:

Ms. Amy Schlagel
Advisory Council on Historic Preservation
1522 K Street, N.W. Room 430
Washington, D. C. 20005

We have forwarded a copy of the pertinent 400 scale plans to Ms. Schlagel.

We concur with your opinion that the other sites which were identified by our office as possibly eligible for the Register are located outside of the impact area for this project. These sites include Site B (Wood House), Site D (Watts House), Site E (Jones House), Site AA 170 (Stone House) and Site U (House and outbuildings).

Mr. Louis H. Ege, Jr., Chief
September 29, 1982
Page 2

Although Section 63.3 of 36CFR63, which requires the federal agencies to request determinations of eligibility for properties which the agency and the SHPO agree meet the eligibility criteria, will be suspended soon, it is currently effective. Therefore, you must request determinations of eligibility from the National Park Service for Grasslands and the Lowman Farm. Once the suspension notice for Section 63.3 has been published in the "Federal Register," you will no longer be required to request formal determinations of eligibility from the National Park Service when your agency and the SHPO agree that a property meets the criteria.

We appreciate your working with us to complete the required Section 106 process. If you have any questions, please contact Ms. Kim Kimlin at 269-2438.

Sincerely,

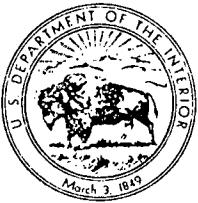


George J. Andrevé
Environmental Review
Administrator

GTA/KEK/bjs

cc: Ms. Amy Schlagel
Mr. Anthony F. Christhilf
Mrs. Keren D. Dement
Ms. Rita Suffness ✓

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United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

ER 83/490

AUG 8 1983

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

Dear Mr. Elinsky:

This responds to your request for the Department of the Interior's comments on the preliminary final Section 4(f) statement for SR-32 (Patuxent Freeway), Anne Arundel County, Maryland.


The preliminary final statement adequately responds to our June 10, 1983 comments on the draft statement. Consequently, we concur that there are no feasible and prudent alternatives to the proposed use of land from the Baltimore-Washington Parkway, and that all possible measures to minimize harm have been included in project planning.

The Department of the Interior has no objection to Section 4(f) approval of the SR-32 project, and we hereby withdraw our previous objection to such approval.

The NPS advises that it would be pleased to consider a right-of-way application for use of its lands subsequent to Section 4(f) approval by the Federal Highway Administration.

Thank you for the attention you have given to our concerns.

Sincerely,


Bruce Blanchard, Director
Environmental Project Review

cc: Mr. Hal Kassoﬀ
Director, Office of Planning
and Preliminary Engineering
Maryland Department of Transportation
P.O. Box 717
Baltimore, Maryland 21203-0717

Commander
Fort George G. Meade
Fort Meade, Maryland 20755
ATTN: AFZI-FE-MP (Galiber)

VII
LIST OF
PREPARERS

This Final Environmental Impact Statement 4(f) was prepared by the Maryland Department of Transportation, State Highway Administration. The following personnel were instrumental in the preparation of this document:

STATE HIGHWAY ADMINISTRATION

Bureau of Project Planning:

- Mr. Frank DeSantis Project Manager
- Mr. Louis H. Ege, Jr. Chief, Environmental Management
- Mr. Edward Karas Assistant Project Manager
- Mr. Dennis J. Lew Environmental Management
- Mr. Melvin Stickles Location Engineering

Bureau of Highway Statistics:

- Mr. Neil J. Pedersen Deputy Director, Office of Planning and Preliminary Engineering
- Mr. Roger Jorss Traffic Forecasting

FEDERAL HIGHWAY ADMINISTRATION

- Mr. Antonio D'Eramo 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.
- Continuing Comprehensive and Cooperative (3c) : The planning process mandated by Federal-Aid Highway Acts and the Urban Mass Transportation Act of 1964 (UMT Act) and implemented by 40 FR 42976 for all urban areas of more than 50,000 population.
- 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 selected for purposes of design and correlation of those geometric features of a highway, such as curvature and sight distance, upon which safe vehicle 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.

Frontage Road : A road contiguous to and generally paralleling an expressway, freeway, parkway or thru-street. Designed to intercept, collect, and distribute traffic desiring to cross, enter or leave such highways and may furnish access to property that otherwise would be isolated as a result of the controlled access. (Also referred to as Service Road.)

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 free-ways 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 densities; 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 design 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.

Outer Separation : A separator between a frontage road or ramp and the roadway (or ramp) of a controlled-access highway.

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".

Section 6(f) : The Land and Water Conservation Fund Act provides grant-in-aid assistance to states for the acquisition of outdoor recreation or open space land. Section 6(f) of this Act requires that no property purchased or developed with these funds can be converted to other than public outdoor recreation uses without approval from the Secretary, Department of the Interior.

Service Road : See Frontage Road.

Shldr. : Shoulder
That portion of a highway adjacent and parallel to the travelled roadway for the accommodations of stopped vehicles for emergency use and for lateral 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).

Vehicle Recovery Area : That portion of ground adjacent to the traveled way that is clear of any fixed obstructions. For safety operation, generally no less than 30 feet measured from the edge of the traveled lane.

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

"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, Article 21, Sections 12-201 thru 12-209. 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-mover. 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

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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 material 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.

The relocation assistance officer located in each district office maintains a listing of local, State and Federal programs which may benefit displaced businesses.

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 - Representative Plant and
Animal Species

PLANTS

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Alder, Alnus sp.
American Holly, Ilex opaca
Arrow-arum, Peltandra Virginica
Arrowhead, Sagittaria sp.
Arrowwood, Vaccinium dentatum
Ash, Fraxinus sp.
Aster, Aster sp.
Begger-tick, Bidens sp.
Black Cherry, Prunus serotina
Black gum, Nyssa Sylvatica
Blackjack oak, Quercus marilandica
Black Willow, Salix nigra
Bramble, Rubus sp.
Burrweed, Sparganium sp.
Buttonbush, Cephalanthus occidentalis
Cattail, Typha sp.
Chestnut oak, Quercus prinus
Duckweed, Lemna sp.
Elderberry, Sambucus canadensis
Elodea, Elodea sp.
Flowering dogwood, Cornus florida
Goldenrod, Solidago sp.
Grape, Vitis sp.
Green ash, Fraxinus pennsylvanica
Greenbrier, Smilax sp.
Hickory, Carya sp.
Honeysuckle, Lonicera japonica
Ironwood, Carpinus caroliniana
Jewelweed, Impatiens capensis
Joe-pye-weed, Eupatorium dubium
Lizard's tail, Saururus ernuus
Loosetrife, Lythrum sp.
Magnolia, Magnolia sp.
Nettle, Urtica dioica
Oaks, Quercus sp.
Poison Ivy, Rhus radicans
Pondweed, Potamogeton
Post Oak, Quercus stellata
Red Maple, Acer rubrum
River Birch, Betula nigra
Rose mallow, Hibiscus moscheutos
Sassafras, Sassafras albidum
Sedges, Carex sp.
Slippery elm, Ulmus rubra
Smartweed, Polygonum punctatum
Spatterdock, Nuphar advena
Spicebush, Lindera benzoin
Spikerush, Eleocharis
Sumac, Rhus sp.
Swamp rose, Rosa palustris
Sweet gum, Liquidambar styraciflua
Sycamore, Plantanus occidentalis
Tear thumb, Polygonum sagittatum
Three square, Scirpus americanus
Tulip poplar, Liriodendron tulipifera
Virginia creeper, Parthenocissus quinquefolia
Virginia pine, Pinus virginiana
Water willow, Decadon verticillatus
White oak, Quercus alba

ANIMALS

MAMMALS

- Cottontail rabbit, Sylvilagus floridanus
- Eastern mole, Scalopus aquaticus
- Flying squirrel, Glaucomys volans
- Grey squirrel, Sciurus carolinensis
- House mouse, Mus musculus
- Mink, Mustela vison
- Muskrat, Odantra zibethica
- Opossum, Didelphis virginiana
- Otter, Lutra canadensis
- Raccoon, Procyon lotor
- Red fox, Vulpes vulpes
- Red squirrel, Tamiasciurus hudsonicus
- Shrew, Blarina brevicauda
- Striped skunk, Metphitis mephitis
- Virginia deer, Odocoileus virginianus
- White footed mouse, Peromyscus leucopus

ANIMALSFROGS

Bullfrog, Rana catesbeiana
Chorus frog, Pseudacris triseriata
Cricket frog, Acris crepitans
Fowler's toad, Bufo Woodhousei
Green frog, Rana clamitans
Green tree frog, Hyla cinerea
Leopard frog, Rana pipiens
Spring peerper, Hyla crucifer

SALAMANDERS

Mud Salamander, Pseudotriton montanus
Red-backed salamander, Plethodon cinereus
Red salamander, Pseudotriton ruber
Spotted salamander, Ambystoma maculatum
Two-Lined salamander, Eurycea bislineata

TURTLES

Box turtle, Terrapene carolina
Mud turtle, Kinosternon subrubrum
Painted turtle, Chrysemys picta
Snapping turtle, Chelydra serpentina

SNAKES

Black racer, Coluber constrictor
Black rat snake, Elaphe obsoleta
Copperhead, Agkistrodon contrortrix
Corn snake, Elaphe guttata
Garter snake, Thamnophis sirtalis
Green snake, Opheodrys aestivus
Hognose snake, Heterodon platyrhinos
King snake, Lampropeltis getulus
Ringneck snake, Diadophis punctatus
Ribbon snake, Thamnophis sauritus
Water snake, Natrix sipedon
Worm snake, Carphophis amoenus

ANIMALSFISH

Blacknose dace, Rhinichthys atratulus

Bluegill, Lepomis macrochirus

Bluespotted sunfish, Enneacanthus gloriosus

Brown bullhead, Ictalurus nebulosus

Channel catfish, Ictalurus punctatus

Eel, Anguilla rostrata

Fallfish, Semotilus corporalis

Golden shiner, Notemigonus crysoleucas

Largemouth bass, Micropterus salmoides

Madtom, Noturus gyrinus

Pumpkinseed, Lepomis gibbosus

Redbreast sunfish, Lepomis aurtius

Shiner, Notropis, sp.

Stickelback, Apeltes quadracus

Tesellated darter, Etheostoma olmstedii

ANIMALS

BIRDS

- Barn owl, Tyto alba
- Barred owl, Strix varia
- Balck Vulture, Coragyps atratys
- Blue bird, Sialia sialis
- Blue jay, Cyanocitta cristata
- Canada goose, Branta canadensis
- Cardinal, Richmodena cardinalis
- Common crow, Corvus brachyrhynchos
- Fish crow, Corvus ossifragus
- Herring gull, Larus argentatus
- Junco, Junco hyemalis
- Least tern, Sterna albifrons
- Laughing gull, Larus atricilla
- Mallard duck, Anas platyrhynchos
- Mocking bird, Mimus polyglottos
- Mourning dove, Zenaidura macroura
- Old squaw, Clanqula hyemalis
- Pheasant, Phasianus colchicus
- Pied-billed grebe, Podilymbus podiceps
- Quail, Colinus virginianus
- Red-tailed hawk, Buteo jamaicensis
- Redwing blackbird, Agelaius phoeniceus
- Scoter, Malanitta sp.
- Sparrow hawk, Falco sparverius
- Turkey vulture, Cathartes aura
- White-throated sparrow, Zonotrichia albicollis
- Woodcock, Philohela minor
- Common grackle, Quiscalus quiscula

APPENDIX D - Design Noise Levels and
Land Use Relationships

DESIGN NOISE LEVELS AND LAND USE RELATIONSHIPS
SPECIFIED IN FHPM 7-7-3

<u>ACTIVITY CATEGORY</u>	<u>Leq(h)</u>	<u>L₁₀(h)</u>	<u>DESCRIPTION OF ACTIVITY CATEGORY</u>
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.

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