

**ENVIRONMENTAL
ASSESSMENT / SECTION 4(f)
FOR**

CONTRACT NO. CL 416-102-770

MARYLAND ROUTE 30

RELOCATED

SOUTH OF HAMPSTEAD TO

NORTH OF HAMPSTEAD

MARYLAND

30

FHWA-MD-EA-84-05-D
Region III

Maryland Route 30 - Relocated
from North of Maryland Route 91
to the vicinity of
Maple Grove Road at Hampstead

ENVIRONMENTAL ASSESSMENT
and
SECTION 4(f) EVALUATION

U.S. Department of Transportation
Federal Highway Administration
and
Maryland Department of Transportation
State Highway Administration

SUBMITTED PURSUANT TO: 42 U.S.C. 4332(2) (C) and 49 U.S.C. 303 (c)
CEQ REGULATIONS (40 CFR 1500 et seq)

12 / 28 / 84

DATE

Neil J. Pedersen

Neil J. Pedersen, Director
Office of Planning and
Preliminary Engineering

12. 28. 84

DATE

Federal Highway Administration

SUMMARY

Summary

1. Administrative Action

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

2. Individuals who can be contacted for additional information concerning the proposed project and this document.

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

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

3. Description of Action

The proposed project consists of the relocation of Maryland Route 30 from the vicinity of Maryland Route 91 in Baltimore County to approximately 200 feet south of Charmil Drive in Carroll County. (See Figures 1 and 2) This relocated two lane roadway would relieve existing and projected peak hour congestion in Hampstead. Although this study will address a two lane roadway, it is desirable to protect a 250 foot right-of-way corridor for an ultimate long term future four lane divided facility. Widening to 4 lanes would be the subject of future additional environmental analyses.

4. Alternates Description

The No-Build Alternate and one Build Alternate with two optional northern and three optional southern tie-ins were selected for detailed studies.

Alternate 1, the No-Build Alternate consists of providing

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routine maintenance for existing Maryland Route 30. There would be no improvement in traffic operation or capacity.

Alternate 2 proposes a two lane roadway with access controls except at connecting roadways. Adequate left turn lanes would be provided on the bypass at proposed intersections with Fringer and Bortner Roads in Baltimore County, and Lees Mill Road, Houcksville Road, Shiloh Road, Maryland Route 482 (Hampstead-Mexico Road) and Brodbeck Road and Cape Horn Roads in Carroll County.

Alternate 2 begins in Baltimore County approximately 600 feet north of the existing Maryland Route 30/Maryland Route 91 intersection. It proceeds in a northerly direction, diverges to the left from existing Maryland Route 30 crosses over existing Maryland Route 30 and intersects Fringer Road west of Maryland Route 30. Alternate 2 then intersects Bortner Road, crosses the County line and enters Carroll County approximately 1100 feet north of Bortner Road. The alignment proceeds in a northerly direction crossing Lees Mill, Houcksville and Shiloh Roads, Maryland Route 482 and Brodbeck and Cape Horn Roads before it ties back into existing Maryland Route 30 south of Charmil Drive, bypassing Hampstead.

Southern options B and C differ from option A in their point of divergence from existing Maryland Route 30. Tie-in option B diverges from Maryland Route 30 just north of Arcadia Avenue crosses Lees Mill Road and ties into the Alternate 2 alignment. Tie-in option C diverges from existing Maryland Route 30 just north of Wolf Hill Road, crosses the access road south of the Black and Decker plant and ties into Alternate 2 west of the Black and Decker retention pond.

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Two optional northern tie-ins are also being considered. Under option A, relocated Maryland Route 30 merges with existing Maryland Route 30 approximately 200 feet south of Charmil Drive and Cape Horn Road would be relocated approximately 1300 feet south of its present location along an existing dirt road. Under option B, relocated Maryland Route 30 merges with existing Maryland Route 30 approximately 850 feet south of Charmil Drive. No major relocation of Cape Horn Road would be required with northern option B.

5. Summary of Environmental Impacts

Benefits associated with Alternate 2 include the separation of local and through traffic, the reduction of traffic congestion and improved highway safety.

Adverse effects are associated with the acquisition of right-of-way. Alternate 2, southern Option A, results in the relocation of two dwellings and one business. Southern Option B would require the relocation of one dwelling, while southern Option C results in the relocation of five dwellings and one business.

Both northern options displace one business. Northern option A also displaces five residences. Property is also required from one cattle farm. Northern option B would result in the relocation of six residences and one business. Access to the cattle farm would be cut off.

No minority individuals or communities would be affected.

This project is consistent with area land use plans.

No public park lands or archeological sites will be affected. Property is required from four (4) historic sites which are potentially eligible for the National Register.

No 100 year floodplains or wetland areas would be impacted.

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Approximately nine (9) streams would be crossed by the proposed alternate. None would be relocated.

Construction of Alternate 2 would result in the removal of approximately 33-39 acres of woodlands depending on the options considered. Approximately 78-111 acres of prime farmland would be affected depending upon the options considered. No known threatened or endangered plant or animal species would be affected.

There are no violations of State or National Ambient Air Quality Standards. Alternate 2 would not result in noise levels at receptor sites exceeding the FHWA Leq 67 dBA noise abatement criteria.

Alternate 1, the No-Build Alternate will not affect any homes or require additional right-of-way. However, it is not consistent with area land use plans and would not relieve existing and projected traffic congestion.

Stream crossing, erosion and sedimentation and stormwater management permits will be required from the Department of Natural Resources.

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Comparison of Alternates

<u>Analysis Item</u>	<u>No-Build</u>	<u>Alternate 2</u>				
		<u>Northern</u>		<u>Southern</u>		
		<u>Tie-In</u>	<u>Option</u>	<u>Tie-In Options</u>		
		<u>A</u>	<u>B</u>	<u>A</u>	<u>B</u>	<u>C</u>
<u>Socio Economic</u>						
1. Relocations						
a. Residence	0	5	6	2	1	9**
b. Businesses	0	1	1	1	0	0
c. Farms	0	0	0	0	0	0
2. Minorities affected	No	No	No	No	No	No
3. Parkland or recreation area affected	0	0	0	0	0	0
4. Consistent with area land use plans	No	Yes	Yes	Yes	Yes	Yes
5. Historic Sites Affected	0	0	1	3	2	1
<u>Natural Environmental</u>						
1. Number of stream relocations	0	0	0	0	0	0
2. Number of stream crossings *	0	--	--	9	7	4
3. Affects threatened or endangered species	No	No	No	No	No	No
4. Acres of prime farmland affected *	--	--	--	104-111	89-96	77-84
5. Impacts 100 year floodplain	No	No	No	No	No	No
6. Affects wetland	No	No	No	No	No	No
<u>Noise</u>						
1. Number NSA's exceeding abatement criteria	1	0	0	0	0	0

*Northern and southern options totals are cumulative.

**Three owner-occupied homes and six apartments.

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Comparison of Alternates cont'd

<u>Analysis Item</u>	<u>No-Build</u>	<u>Alternate 2</u>				
		<u>Northern</u>		<u>Southern</u>		
		<u>Tie-In</u>	<u>Option</u>	<u>Tie-In</u>	<u>Options</u>	
		A	B	A	B	C

Air Quality

1. CO violations of 1 hour or 8 hour standards	No	No	No	No	No	No
--	----	----	----	----	----	----

Costs

In Millions

2.	3,298	19,899	17,359
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The costs shown include northern tie-in option B. If the northern tie-in option A is selected, the costs would increase approximately by \$2,400,000.

The following Environmental Assessment Form is a requirement of the Maryland Environmental Policy Act and Maryland Department of Transportation Order 11.01.06.02. It's use is in keeping with the provisions of 1500.4 (k) and 1506.2 and .6 of the Council of Environmental Quality Regulations, effective July 31, 1979, which recommend that duplication of Federal, State, and Local procedures be integrated into a single process.

The checklist identifies specific areas of the natural and social-economic environment which have been considered while preparing this environmental assessment. The reviewer can refer to the appropriate sections of the document, as indicated in the "Comment" column of the form, for a description of specific characteristics of the natural or social-economic environment within the proposed project area. It will also highlight any potential impacts, beneficial or adverse, that the action may incur. The "No" column indicates that during the scoping and early coordination processes, that specific area of the environment was not identified to be within the project area or would not be impacted by the proposed action.

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ENVIRONMENTAL ASSESSMENT FORM

	<u>YES</u>	<u>NO</u>	<u>COMMENTS</u>
A. Land Use Considerations			
1. Will the action be within the 100 year flood plain?	—	<u>X</u>	—
2. Will the action require a permit for construction or alteration within the 50 year flood plain?	—	<u>X</u>	—
3. Will the action require a permit for dredging, filling, draining or alteration of a wetland?	—	<u>X</u>	—
4. Will the action require a permit for the construction or operation of facilities for solid waste disposal including dredge and excavation spoil?	—	<u>X</u>	—
5. Will the action occur on slopes exceeding 15%?	—	<u>X</u>	—
6. Will the action require a grading plan or a sediment control permit?	<u>X</u>	—	—
7. Will the action require a mining permit for deep or surface mining?	—	<u>X</u>	—
8. Will the action require a permit for drilling a gas or oil well?	—	<u>X</u>	—
9. Will the action require a permit for airport construction?	—	<u>X</u>	—
10. Will the action require a permit for the crossing of the Potomac River by conduits, cables or other like devices?	—	<u>X</u>	—
11. Will the action affect the use of a public recreation area, park, forest, wildlife management area, scenic river or wildland?	—	<u>X</u>	—

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	<u>YES</u>	<u>NO</u>	<u>COMMENTS</u>
21. Will the action result in any discharge into surface or sub-surface water?	<u>X</u>	_____	_____
22. If so, will the discharge affect ambient water quality parameters and/or require a discharge permit?	_____	<u>X</u>	_____
C. Air Use Considerations			
23. Will the action result in any discharge into the air?	<u>X</u>	_____	_____
24. If so, will the discharge affect ambient air quality parameters or produce a disagreeable odor?	_____	<u>X</u>	_____
25. Will the action generate additional noise which differs in character or level from present conditions?	<u>X</u>	_____	_____
26. Will the action preclude future use of related air space?	_____	<u>X</u>	_____
27. Will the action generate any radiological, electrical, magnetic, or light influences?	_____	<u>X</u>	_____
D. Plants and Animals			
28. Will the action cause the disturbance, reduction or loss of any rare, unique or valuable plant or animal?	_____	<u>X</u>	_____
29. Will the action result in the significant reduction or loss of any fish or wildlife habitats?	_____	<u>X</u>	_____
30. Will the action require a permit for the use of pesticides, herbicides or other biological, chemical or radiological control agents?	_____	<u>X</u>	_____

	<u>YES</u>	<u>NO</u>	<u>COMMENTS</u>
41. Will the action affect the ability of the area to attract tourism?	_____	<u>X</u>	_____
F. Other Considerations			
42. Could the action endanger the public health, safety or welfare?	_____	<u>X</u>	_____
43. Could the action be eliminated without deleterious affects to the public health, safety, welfare or the natural environment?	_____	<u>X</u>	_____
44. Will the action be of statewide significance?	_____	<u>X</u>	_____
45. Are there any other plans or actions (federal, state, county or private) that, in conjunction with the subject action could result in a cumulative or synergistic impact on the public health, safety, welfare, or environment?	_____	<u>X</u>	_____
46. Will the action require additional power generation or transmission capacity?	_____	<u>X</u>	_____
47. This agency will develop a complete environmental effects report on the proposed action.	_____	_____	_____

An Environmental Assessment is being prepared.

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**I. DESCRIPTION
OF PROPOSED ACTION**

I. DESCRIPTION OF PROPOSED ACTION

A. Project Location

The proposed relocation of Maryland Route 30 is located in western Baltimore County and eastern Carroll County. (See Figure 1) The project limits extend from north of Maryland Route 91 in Baltimore County to the vicinity of Charmil Drive in Carroll County, a distance of approximately 7.9 miles. (See Figure 2).

B. Project Description

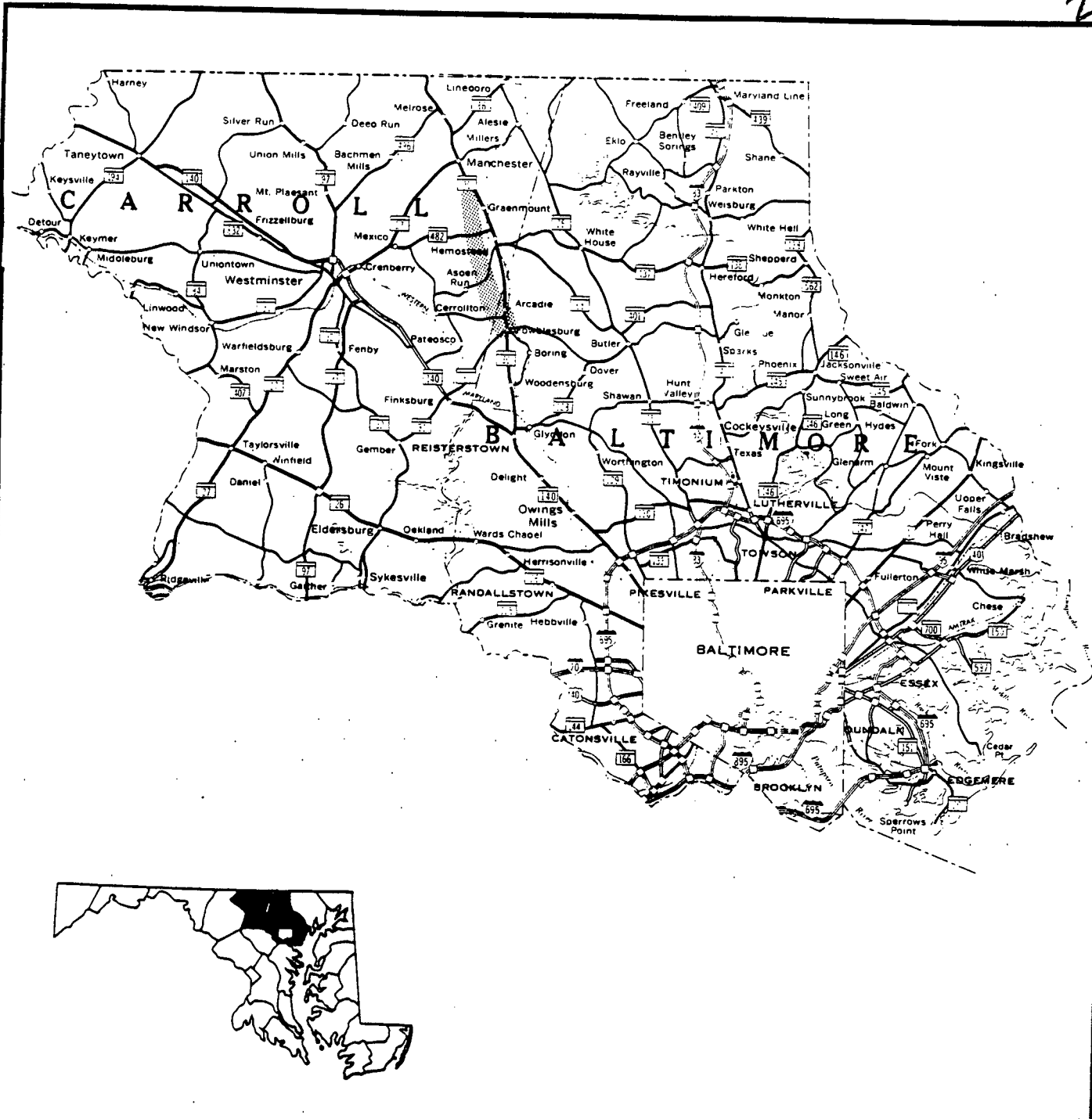
The proposed project involves the relocation of Maryland Route 30 west of Hampstead. Relocated Maryland Route 30 begins north of Maryland Route 91 in Baltimore County, extends in a northwesterly direction and merges with existing Maryland Route 30 in the vicinity of Charmil Drive in Carroll County. Left turn storage lanes would be provided at proposed intersections. Northern and southern tie-in options are being considered.

C. Description of Existing Environment

1. Social Environment

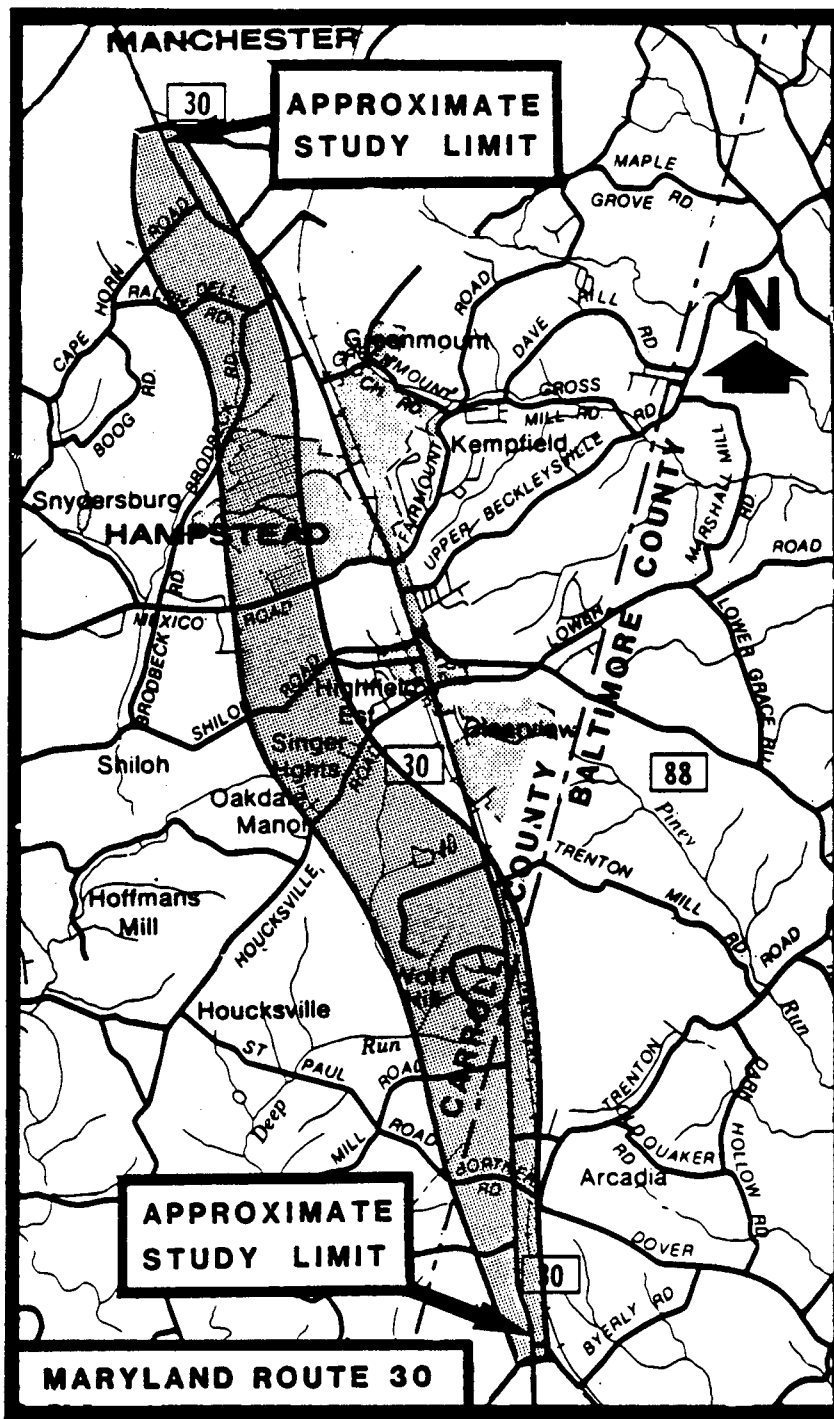
Both Carroll County and the Hampstead area have experienced a high rate of growth in the last decade compared to the state as a whole which grew by 7.5%. Carroll County's population increased by 39.6% from 1970 to 1980. The Town of Hampstead increased 34.5%, and Election District 8 (Figure 3), which includes Hampstead, increased by 48.5% during that time.

A small portion of the study area lies in Census Tracts 4050 and 4046 in Baltimore County. Population in this district is one of the lowest in the county, although it grew by about 27% from 1970 to 1980. This part of Baltimore County is designated as a low growth area.



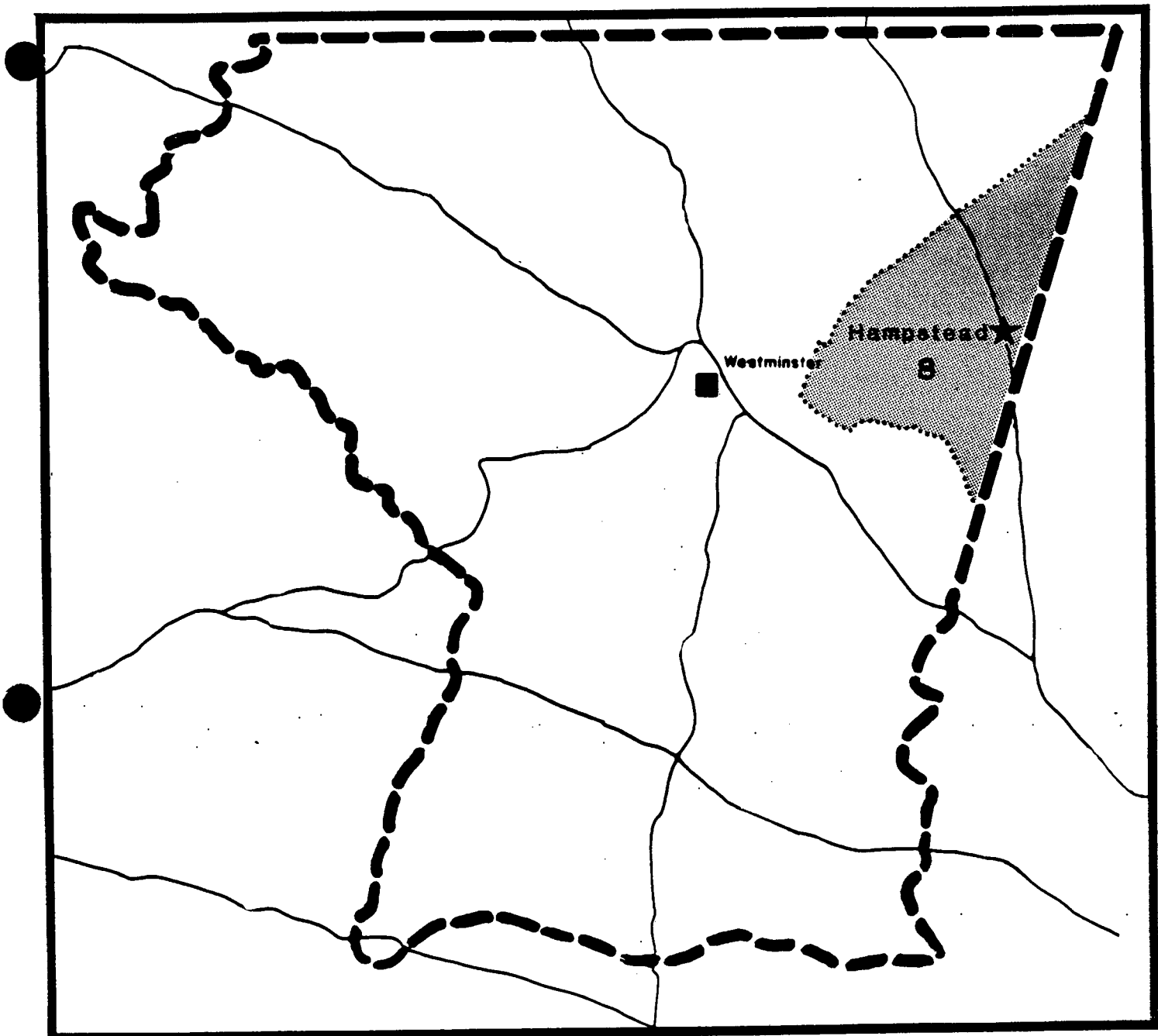
LOCATION MAP

FIGURE 1



STUDY AREA MAP

FIGURE 2



ELECTION DISTRICT

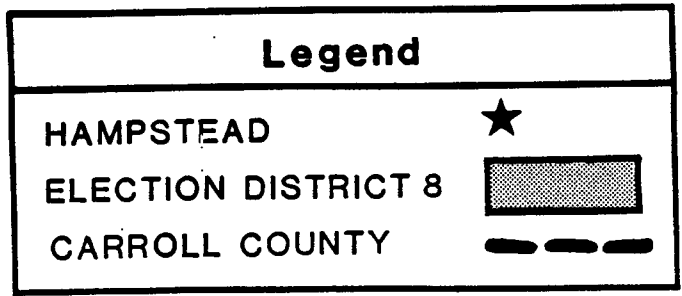


FIGURE 3

Table 1 Population in Study Area

	1970	1980	Projected 2005	Percent Change	
				70-80	1980-2005
Hampstead	961	1,293	NA	34.5	--
Election District 8	5,290	7,857	9,650	48.5	22.8
Carroll County	69,006	96,356	129,000	39.6	33.9
Census Tract 4050	3,120	3,960	3,700	26.9	-6.5
Census Tract 4046 (in Balto. County)	1,482	1,790	1,650	20.7	-7.8
Baltimore Co.	620,409	655,615	710,000	5.7	8.3

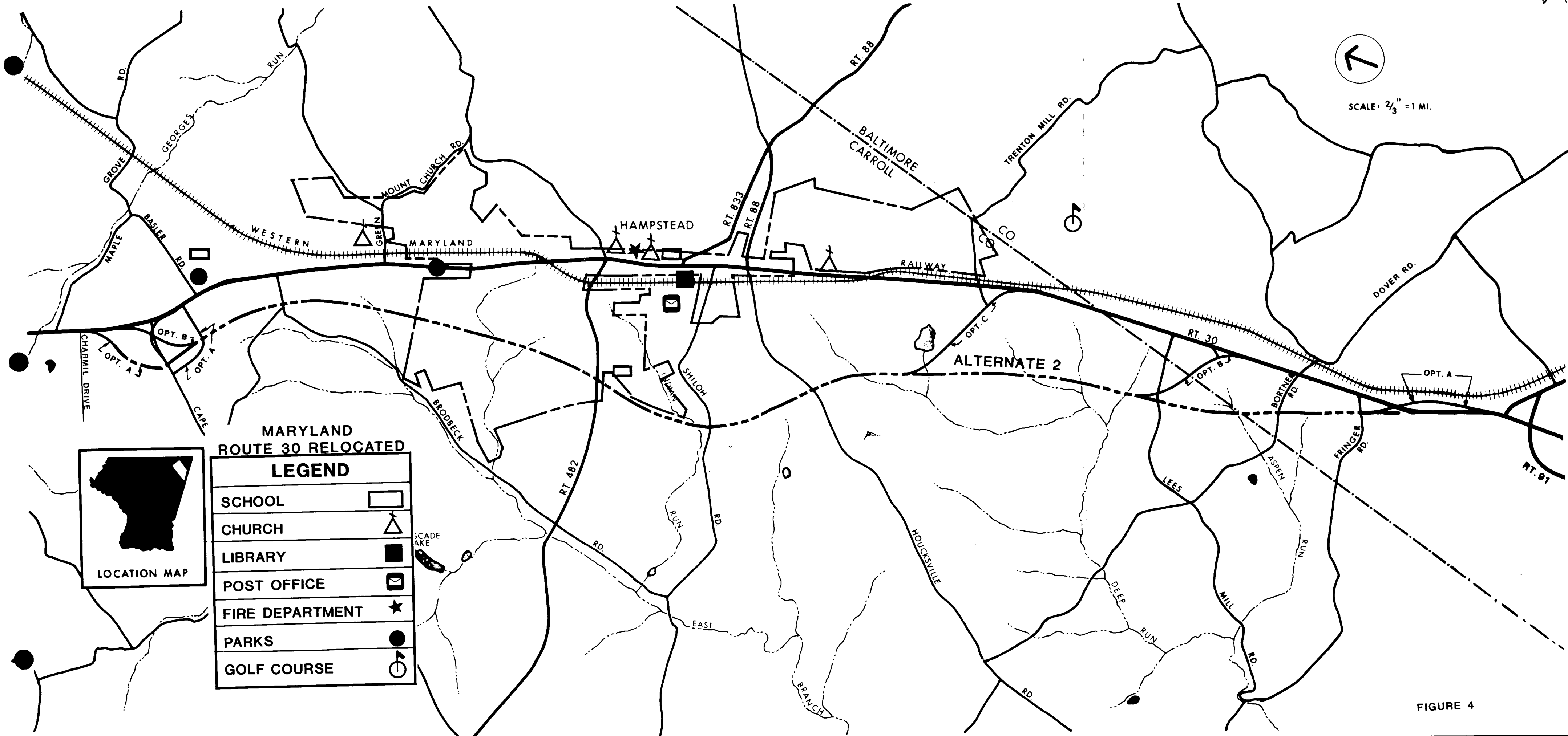
Sources: U.S. Census of Population and Housing 1980, Carroll County Department of Planning 1984, and the Regional Planning Council

The Carroll County Department of Planning has identified the Hampstead Election District as a growth area with a projected 2005 population of 9,650 - almost 1,800 more than in 1980. In addition, the Hampstead Sewage Treatment Plant is currently being expanded to handle 2,200 additional dwelling units in the Hampstead area.

No minority communities have been identified in the study area. The 1980 Census data, in fact, did not identify any minority individuals in Election District 8. No concentrations of elderly or handicapped persons have been identified.

Community facilities (See Figure 4) in the study area include four churches, three schools - Hampstead Elementary, North Carroll Middle and South Carroll Senior High Schools, the Northeast Branch Library, the Hampstead Post Office and the Hampstead Volunteer Fire Company. The closest hospitals are in Westminster and Hanover, Pennsylvania.

COMMUNITY FACILITIES



MARYLAND ROUTE 30 RELOCATED

LEGEND

SCHOOL	
CHURCH	
LIBRARY	
POST OFFICE	
FIRE DEPARTMENT	
PARKS	
GOLF COURSE	

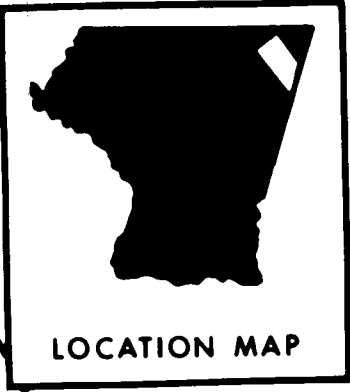


FIGURE 4

Public water and sewer services are available in Hampstead with an expansion to the Hampstead Sewage Treatment plant currently under construction.

Recreation facilities include the Hampstead Memorial Park and the North Carroll Community Pond, both located north of town.

2. Economic Environment

Agriculture, especially dairy farming, has historically been the primary source of income in Carroll County. The Hampstead area, however, is emerging as an important industrial employment center within the county. In Election District 8 over 28% of the labor force are employed in manufacturing. This is nearly twice the percentage of the total statewide figure - 14% - for those employed in manufacturing. Hampstead has even a higher percentage - 34%.

The Black and Decker Company, with approximately 1,600 employees, is the largest single employer in the area. The Joseph A. Banks Clothing Company provides jobs for about 300 people. Construction, wholesale trade and business and professional services also provide a large percent of local employment. Table 2 shows the distribution of these and other industries in the study area.

The Town of Hampstead intends to attract more employment by developing an additional industrial park west of Maryland Route 30 in the vicinity of Maryland Route 482.

Table 2
Employed Persons by Industry in Study Area
(Number/Percent)

Industry	Election District 8	Hampstead	Maryland
Agriculture, Fishing Mining, Forestry	115/ 3.01	23/ 3.42	33,366/ 1.71
Construction	388/10.16	86/12.81	127,840/ 6.56
Manufacturing	1,095/28.68	217/32.33	279,740/14.37
Transportation	118/ 3.09	23/ 3.42	84,957/ 4.36
Communication and Other Public Utilities	124/ 3.24	16/ 2.38	56,009/ 2.87
Wholesale & Retail Trade	713/18.67	135/20.11	366,182/18.81
Finance, Insurance & Real Estate	247/ 6.47	19/ 2.83	115,619/ 5.93
Services (including Business, Repair, Entertainment, Health, Education)	737/19.30	113/16.84	603,079/30.98
Public Administration	280/ 7.33	39/ 5.81	279,920/14.37
TOTAL	3,817/99.94	671/99.93	1,946,612/99.96

Source: 1980 Census of Population and Housing

3. Land Use

Existing (Figure 5)

Nearly all the developed land within the study area is along Maryland Route 30. In the northern part of the study area the land use is a mixture of farmland, low density houses, scattered commercial uses such as a regional shopping center and two recreational areas - a park and a community pool.

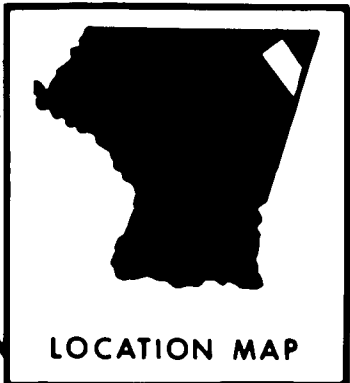
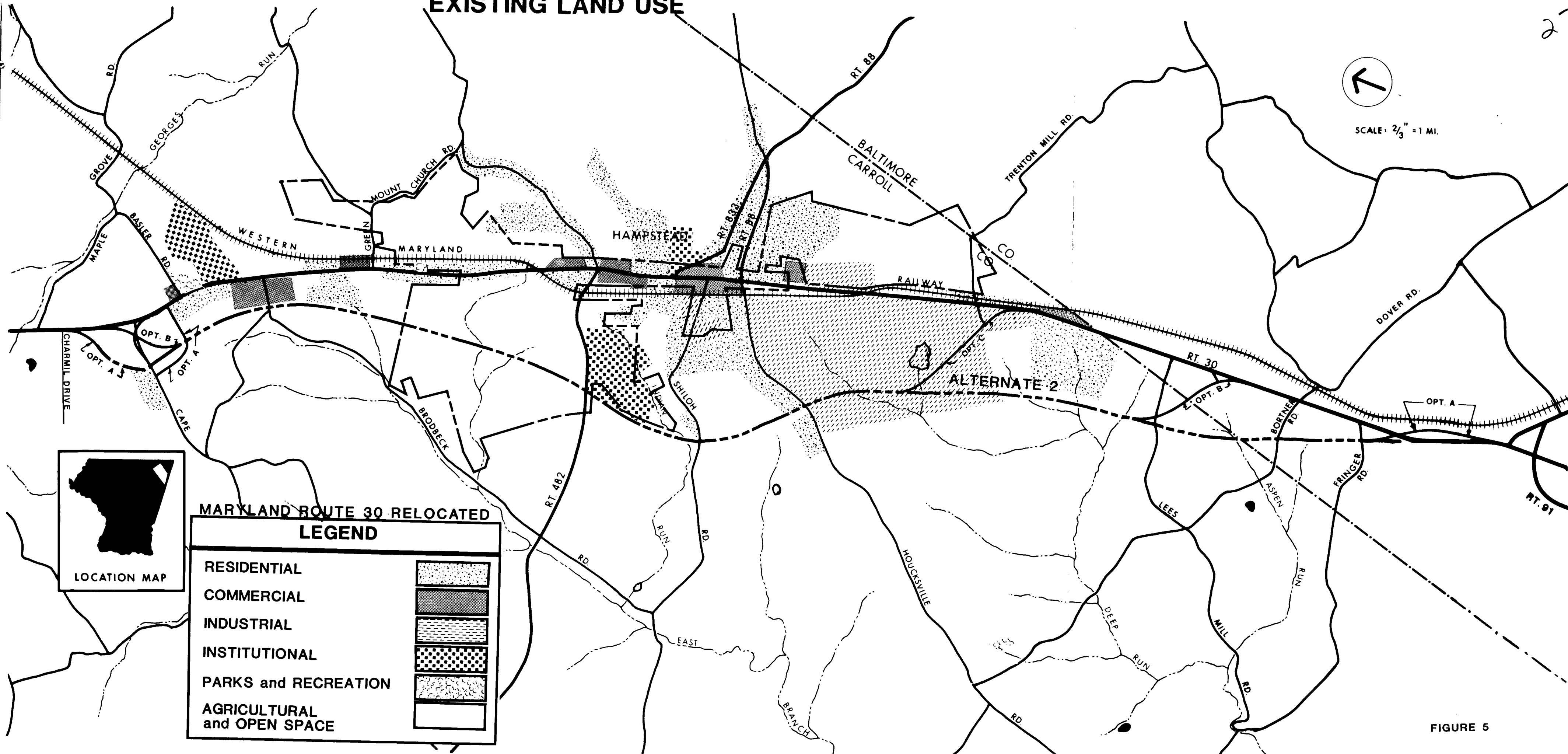
Within the Town of Hampstead are commercial and low and medium density residential uses, mixed with community facilities such as

EXISTING LAND USE

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SCALE: 2/3" = 1 MI.



LOCATION MAP

MARYLAND ROUTE 30 RELOCATED
LEGEND

RESIDENTIAL	
COMMERCIAL	
INDUSTRIAL	
INSTITUTIONAL	
PARKS and RECREATION	
AGRICULTURAL and OPEN SPACE	

FIGURE 5

churches. In addition, there is a small industrial area on Carroll Avenue - the Joseph A. Banks Clothing Manufacturers.

South of Hampstead are several new housing developments, a substantial industrial community (including 325 acres at the Black and Decker Plant) and some strip commercial properties.

East and west of Hampstead is primarily farmland mixed with occasional woodland. The area west of Maryland Route 30, in the vicinity of the proposed alignment, is prime farmland.

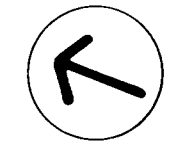
Future (Figure 6)

The Comprehensive Plan for Hampstead and Environs (Adopted 1972 and amended 1983) recommends that new development be limited primarily to the areas adjacent to the Hampstead municipal limits. Along Maryland Route 30 in Hampstead a combination of commercial and medium density residential land use is recommended. Immediately east and west of town, medium-to-low density residential use is proposed. Industrial use is proposed for the area south of town, for a small parcel in northern Hampstead along the western Maryland Railroad tracks within the town limits, and for a large parcel west of Maryland Route 30 near Maryland Route 482.

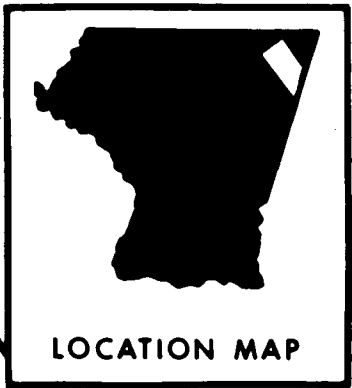
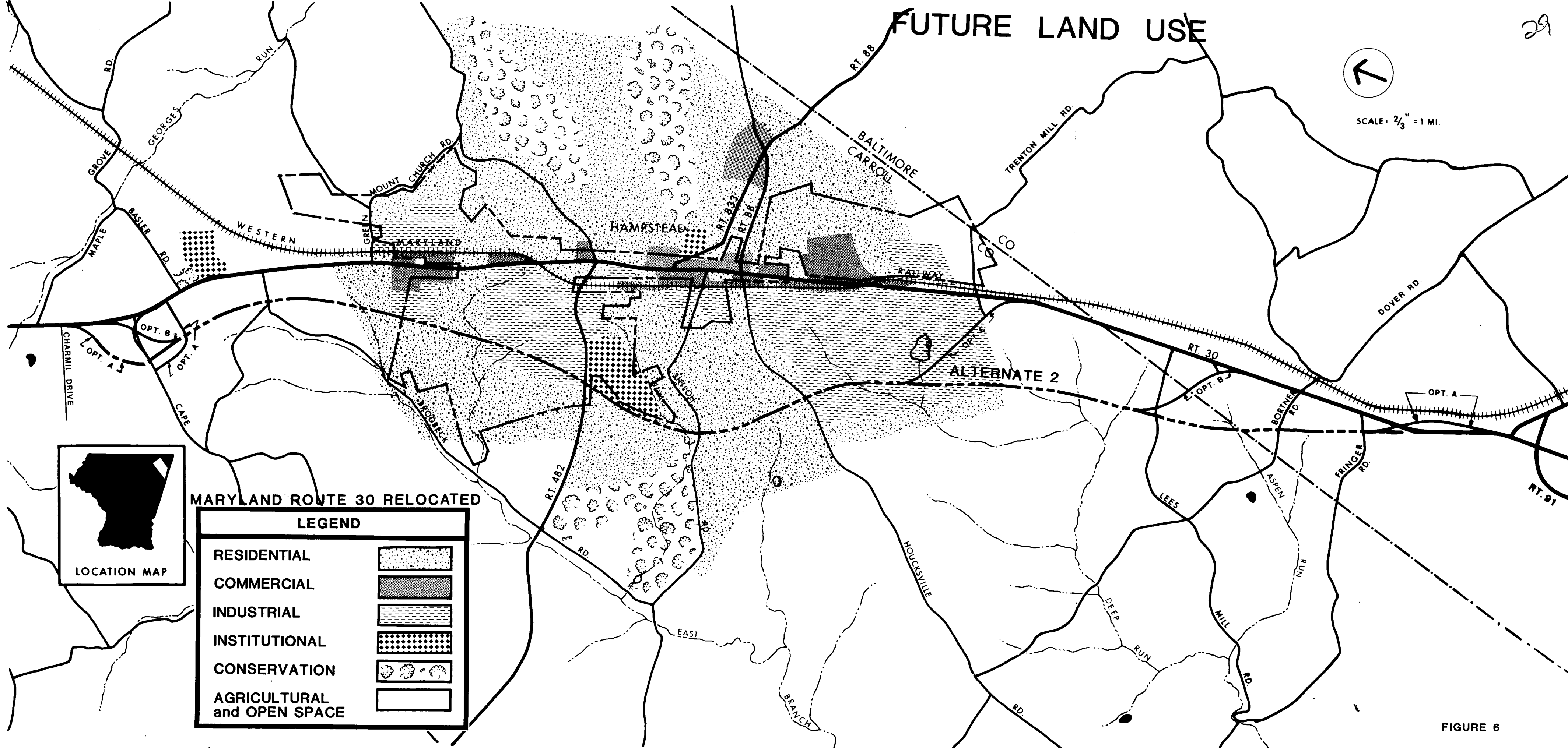
New commercial development will be confined mostly to Maryland Route 30 areas within the municipal limits. Some areas within the town, that are now residential, are expected to become commercial in order to expand the central business district. Outside the municipal limits commercial development will be restricted to prevent further strip development.

With the proposed expansion of the industrial community and the sewage treatment plant, as well as the suitability and zoning of much of the nearby farmland for development, it is probable that the

FUTURE LAND USE



SCALE: 2/3" = 1 MI.



LOCATION MAP

MARYLAND ROUTE 30 RELOCATED

LEGEND	
RESIDENTIAL	
COMMERCIAL	
INDUSTRIAL	
INSTITUTIONAL	
CONSERVATION	
AGRICULTURAL and OPEN SPACE	

FIGURE 6

current increase in population and, thus, new housing units will continue in the Hampstead area.

The part of the alignment that lies within Baltimore County is within a designated Rural Service Area. This is an area where urban growth will be excluded and the land will be reserved for agriculture, forestry and related activities.

4. Historic and Archeological Resources

a. Historic site surveys undertaken by the Maryland Historical Trust has resulted in the identification of the following sites in the study area. (See Table 3) Eight of these sites are considered as potentially eligible for the National Register of Historic Places. These sites are shown on figure 12.

TABLE 3
HISTORIC SITES

<u>1979 Survey Number</u>	<u>Site Name</u>	<u>Level of Significance</u>
1	J. Wolfrom House/Fringer Tavern (BA 1854) -Elmo property	Potentially eligible for National Register (P.E.)
2	Henry Fringer House (BA 1855)	P.E.
3	Deal House	P.E.
4	W. Shipgegar Farm	
4A	Elias Houck Residence/Leister Farm (CARR 596)	P.E.
4B	Houck Tenant House	
8	Stansbury Farm #2	
8A	Farm (formerly Kriel property) (Northwest of Maryland Route 30/Maryland Route 482) (CARR 603)	P.E.
8B	Bank House (CARR 611)	P.E.
8C	C. Richards Farm	
9A	Stansbury Farm #1	
40	Steffey/Steffe Farm	
41	J. A. Appold House	
42	Garrett Farm (CARR 615)	P.E.
43	Becker/Garrett Farm	
44	Newwinger House	
46	Baumann House (BA 912)	P.E.
47	Arcadia Farm	
48	Farm/south side of Maryland Route 482.	
49	Brodbeck House	

b. Archeological surveys were also conducted in the study area. Two pre-historic sites were identified, but will not be impacted by the proposed construction. One prehistoric site, 18 BA 166, should be considered as a sensitive area and avoided during construction.

5. Natural Environment

a. Geology

Eastern Carroll and western Baltimore County lie within the eastern division of the Piedmont Province, a highly complex series of gneisses, slates, phyllites, schists, marble, serpentine, granitic and gabbroic rocks. The project is underlain by the Wissahickon formation, composed primarily of albites-chlorite schists from the feldspar and mica groups. These rocks are highly compressed and unevenly distorted producing some difficulty in locating groundwater.

Thus, while groundwater may be plentiful, the availability is limited by present technology.

b. Topography

The variety of rocks and their uneven, distorted configurations have produced a diversified topography in the project area. Slopes are relatively shallow in the southern portion of the project area becoming gradually more severe in the north. Grades in excess of 30% are rare and are generally associated with stream bed erosion. Existing Maryland Route 30 is on a ridge that forms a division between two watersheds. The western part is drained by the Patapsco and the eastern part by the Gunpowder watershed in Baltimore County.

c. Soils

The soils in the study area consist of mainly the Glenelg,

Chester, Manor Association. These soils are well-drained and generally deep to micaceous bedrock. The Chester and Glenelg soils have a thick, clayey subsoil with a somewhat micaceous upper horizon. The Manor soils resemble them only by their micaceous constituents, lacking the clayey subsoil. Among the minor soils in this association, are Mt. Airy, Elioak, Elsinboro, Glenville, Delanco, and Baile. The Comus, Codorus, and Hatboro soils lie in small areas on the floodplains of streams.

Three other associations lie in small pockets in the study area. The Mt. Airy-Linganore, Glenelg-Manor-Mt. Airy, and the Mt. Airy-Glenelg Associations.

The U.S. Soil Conservation Service has designated some soil types as prime farmland. A large percentage of the study area is used for farming. No unique farmland exists in the study area.

d. Groundwater

Groundwater in the study area is drawn from the Piedmont Province Hydrologic Unit II, primarily the Wissahickon Formation. Well yields range from less than 1 to 320 gallons per minute (GPM). There is about a 6 percent chance of a well yield greater than 50 GPM (Maryland State Planning Department, 1969). In 1980, the town of Hampstead was the only user over 100,000 GPD in the Wissahickon Formation.

e. Surface Water

Maryland Route 30 follows a north-south ridge line that divides drainage in the study area into two major river basins. West of Maryland Route 30 drains into the Patapsco River via East Branch, Indian Run, Aspen Run, and Deep Run. Drainage east runs into Gunpowder Falls via Georges Run and Piney Run. All study area

streams are similar in size and gradient.

The State of Maryland has established water use protection and quality criteria to protect beneficial water uses. All waters of the state are protected for the basic uses of water contact recreation, fish, other aquatic life, and wildlife, and compose Class I. More restrictive criteria have been established to protect natural trout waters (Class III) and Recreational Trout Waters (Class IV).

Nine streams would be crossed by the proposed alignment. The proposed bypass would be entirely within the Patapsco River drainage. These streams include Aspen Run, Deep Run and three tributaries, Indian Run and three tributaries of East Branch. Many of these streams have already been realigned to accommodate agricultural activities or residential development.

f. Floodplains

The U.S. Department of Housing and Urban Development, Federal Insurance Administration has published Flood Boundary and Floodway Maps for Carroll County, and Flood Insurance Rate Maps for the Baltimore County section of the study area. This mapping indicates the presence of 100 year floodplains along Deep Run and East Branch outside of the study area of the alternates being considered.

g. Terrestrial Ecology

Less than fifteen percent of Carroll County retains natural vegetation due to agricultural activities or other development. Wooded areas generally occur along stream valleys or areas where soils are poor, or slopes limit agriculture and development.

Natural vegetation in wooded areas is generally Chestnut Oak Association (Brush, 1976). Species in this group include chestnut oak, blackjack oak, red maple, white oak, sassafras, northern red oak, black cherry, black gum, black oak, pignut hickory, and flowering dogwood. Understory species include serviceberry, blueberry, mountain laurel, and American chestnut root sprouts.

There are no ecologically unique or sensitive areas in the study area.

Extensive clearing for agriculture and development has reduced natural habitat to minimum levels. The diversity and abundance of wildlife has been reduced substantially as well. Two major habitat types, openland and woodland remain.

Openland includes cultivated fields, pastures, old field habitat and residential areas. Animals inhabiting these areas use the ecotones, or border areas with other habitat types for food and shelter. Common species include pheasant, bobwhite, quail, doves, rabbits, skunks, groundhog, rodents, deer, red fox, raccoons, and various songbirds and birds of prey.

Forestland is limited to isolated stands along streams or in areas unsuitable for farming. Forest species include deer, squirrel, raccoons, rodents, and many songbirds. These interspersed forested areas enhance the wildlife-carrying capacity of a predominantly agricultural region.

The numerous streams which bisect the area provide a food and water source for upland game birds, songbirds, mammals, and a variety of amphibians and reptiles.

h. Aquatic Ecology

Fish species are limited in the area due to the relatively small size and restricted flow volumes of the streams. The following table lists species that are likely to inhabit project area streams:

Project Area Fish Species

<u>Notropis cornutus</u>	Common shiner
<u>Clinostomus funduloides</u>	Redside dace
<u>Rhinichthys atratulus</u>	Blacknose dace
<u>Thinichthys cataractae</u>	Longnose dace
<u>Campostoma anamalum</u>	Stoneroller minnow
<u>Semotilus atromaculatus</u>	Creek chub
<u>Castostomus lommersoni</u>	White sucker
<u>Noturus insignis</u>	Catfish
<u>Etheostoma olmsted</u>	Tesselated darter
<u>Lepomis macrochirus</u>	Bluegill
<u>Cottus bairdi</u>	Mottled sculpin

These species are common in streams throughout the region, including more degraded surface water bodies near highly urbanized areas. Only one species, the bluegill, can be considered of recreational importance.

Sections along Aspen Run, Indian Run, and East Branch flowing through the project area are heavily grazed and show no potential for trout. The alignment crosses Deep Run at three points and this stream does show some potential, but the presence of trout has not been documented by the Maryland Fisheries Administration.

Threatened or Endangered Species

Coordination with the Maryland Department of Natural Resources and the U.S. Fish and Wildlife Services (refer to Section VII) indicates there are no known populations of State or Federally listed threatened or endangered species in the study area. The bog turtle, Clemmys muhlenbergi is a "candidate species" for federal listing, and may be present in Carroll County, but has not been spotted in the project area.

6. Existing Noise Conditions

Sixteen noise sensitive receptors (See Figure 13) were addressed in this analysis. They consist of residential, educational and religious use areas. Descriptions of the noise sensitive areas are provided in the following table. All of the sensitive receptors identified are Category B uses as defined by Federal Highway Administration, Federal-Aid Highway Program Manual (FHPM) 7-7-3 (See Table 8 in Section IV-D). A copy of the technical Analysis report is available at the State Highway Administration, 707 North Calvert Street, Baltimore, Maryland, 21202.

Highway traffic noise is usually measured on the "A" weighted decibel scale "dBA", which is the scale that has a frequency range closest to that of the human ear. In order to give a sense of perspective, a quiet rural night would register about 25 dBA, a quiet suburban night would register about 60 dBA, and very noisy level changes of a 2-3 dBA can barely be detected, with a 5 dBA change readily noticeable. A 10 dBA increase is judged by most people as a doubling of sound loudness. (This information is presented in the "Fundamentals and Abatement of Highway Traffic Noise" by Bolt, Beranek & Newman, Inc. for FHWA, 1980).

NOISE SENSITIVE AREAS
MARYLAND ROUTE 30 RELOCATED

<u>Site No.</u>	<u>Description</u>
1 & 2	Two and one-half story brick residences located on Maryland Route 30 (Hanover Pike) (Historic)
3	Two and one-half story frame house located on Maryland Route 30 (Hanover Pike) (Historic)
4	One story brick and frame house at 209 Lees Mill Road. This site would be adjacent to the proposed Alternate 2A bypass location.
5	Monitored and modeled receptor for the Wolf Hill Subdivision. The location is typical of many residences whose properties abutt the bypass right-of-way 2B to the west.
6	Two and one-half story frame house (Hanover Pike)
7	One story duplex residence, Singer Road located to the east of the proposed bypass near Houcksville Road.
8	One and one-half story frame house, Shiloh Road, located to the east of the proposed bypass.
9 & 9a	North Carroll High School on Hampstead-Mexico Road (Maryland Route 482). Site 9 being the air conditioned high school building and Site 9a the high school athletic field area.
10	St. Mark's Evangelical Lutheran Church on Hanover Pike, in Hampstead, between Upper Beckleysville Road and Fairmount Road. The building is of stone and brick construction. (Not shown on mapping.)
11	Two story residence located east of the proposed bypass location on Hanover Road in Hampstead. (Historic)
12	Brick and frame bi-level residence at 2119 Sterling Court. The west property line abutts the bypass right-of-way.
13	Two story frame house, Hanover Pike
14	One story frame house on Ralph Dell Road. The east property line abutts the bypass right-of-way.
15	Two story brick residence at 2514 Hanover Road (Historic)
16	Two and one-half story frame house in the northwest quadrant of the Cape Horn Road - Maryland Route 30 intersection

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These levels are expressed in terms of an Leq noise level which represents the noise level of a predetermined time period in this case one hour. All ambient and predicted levels in this report are Leq exterior noise levels unless otherwise noted.

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, speed, 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. Ambient noise levels were measured at noise sensitive areas in the Maryland Route 30 study area during two (2) different periods of the "typical" day based on the diurnal traffic curve:

- 1) non-rush hour (7:00 a.m. - 4:00 p.m.) and
- 2) evening rush hour (4:00 p.m. - 6:00 p.m.).

This was done to establish and quantify diurnal variations in noise levels resulting from changes in traffic volumes or vehicle mix. It was determined for all of the noise sensitive areas, the most typical noise conditions occur during the non-rush hour period (7:00 a.m.- 4:00 p.m.). During this time, the highest noise levels are experienced for the greatest length of time.

The results of the ambient measurements are included in Table 9, Section IV-D along with the predicted noise levels; also see figure 13 for NSA receptor locations.

7. Existing Air Quality

The Maryland Route 30 project is within the Metropolitan Baltimore Intrastate Air Quality Control Region. While only a portion of the region does not meet the primary standards for carbon monoxide (CO) the entire region is subject to transportation control measures such as the Vehicle Emissions Inspections Program.

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

II. NEED FOR THE PROJECT

II. NEED FOR THE PROJECT

A. Purpose

The purpose of the Maryland Route 30 project is to provide additional traffic capacity for the existing and projected traffic growth that is anticipated in the Hampstead area. Traffic volumes are increasing due to increasing suburban growth in the area and the increased demand for transportation of goods. During peak traffic hours, motorists operate under extremely congested traffic conditions due to commuters using existing Maryland Route 30 to get to and from the Black and Decker Plant to the south and Westminster/Hunt Valley to the east and west. Queues develop southbound along Maryland Route 30 in the a.m. peak at Gill Avenue and northbound in the p.m. peak at Maryland Route 482/Fairmont Avenue.

Existing Maryland Route 30 is an uncontrolled access two lane highway. The existing right-of-way in Hampstead varies from approximately 30 to 40 feet in width with 10' for parking located on both sides of the road.

The existing roadway has inadequate shoulders and with the exception of a left turn lane on northbound Maryland Route 30 at Maryland Route 482 this facility does not provide for left turns.

Horizontal and vertical geometry of the existing road is compatible with a design speed of 50 miles per hour (mph) in the rural areas, with lower posted speeds of 30 mph within the town.

If Maryland Route 30 is not relocated, traffic conditions will worsen and the potential for accidents will increase. The rehabilitation of existing Maryland Route 30 to a four-lane facility was considered. Studies have shown that this would require removal of on street parking, where there is a critical shortage of parking

spaces. Further, severe socio-economic impacts would result. Approximately 71 residences and 16 businesses in and around Hampstead would be affected.

B. Project Background

Preliminary planning for relocated Maryland Route 30 began in 1961 with the study of two separate bypasses around Hampstead and Manchester. However, elected officials requested that studies include one continuous bypass around both towns. Numerous meetings with County Officials and the Maryland State Highway Administration (SHA) resulted in a planned western bypass alignment, the southern portion of which was similar to the presently proposed Alternate 2 around Hampstead. A similar alignment was adopted in 1968 as part of the major street plans of Manchester and Hampstead. Carroll County's master plan, adopted by its Planning and Zoning Commission on May 13, 1974 designated this project a Primary Highway.

Following adoption of these plans, the SHA in cooperation with the county government began a policy of right-of-way protection for the future highway. In some cases, right-of-way was purchased and it was agreed not to plan any construction in the path of the proposed road (then designated Alternate A).

The project was publicly discussed at a March, 1973 meeting for planned improvements to Maryland Route 482. At the Interim Alternates Meeting held on June 26, 1975, people living along existing Maryland Route 30 supported the proposed facility because of safety deficiencies and the constant traffic noise.

At the Alternates Public Meeting on April 13, 1978, the Mayor of Manchester stated that he and the Town Council were opposed to the then proposed Alternates A (western bypass), and C (western

bypass of Hampstead and eastern bypass of Manchester). As a result of project priorities and severe funding limitations, the project studies were suspended. In 1983, Hampstead and Carroll County elected officials indicated the need for a bypass. The current study does not include a bypass of Manchester.

Need for the project has been recognized in the General Development Plan for the Baltimore Region by the Regional Planning Council and by the Carroll County Planning and Zoning Commission. The Department of Transportation has listed this project in the 1984-1989 Consolidated Transportation Program Primary Development and Evaluation Program for Planning, Design and Right-of-Way Acquisition. No funding is provided for Construction in the current program.

The Carroll County Master Plan and the Comprehensive Development Plan of Hampstead incorporate the concept of an improved facility for Maryland Route 30. This project has appeared on Carroll County's Master Plan since 1962 and would support projected changes in land use in the corridor. The Hampstead bypass is considered, by Carroll County elected officials, as their highest transportation priority.

C. Existing and Projected Traffic Conditions

Quality of traffic flow along a highway is measured in terms of level of service (LOS). This measure is dependent upon highway geometry and traffic characteristics and ranges from LOS "A" (Best) to LOS "C" (Minimum Desirable), to LOS "E" (capacity), and LOS "F" (Worst or Forced Flow).

Existing Maryland Route 30 in Hampstead is currently operates near capacity "LOS D/E" (14600 ADT) during morning and evening rush

hours (see figure 7). Congestion is at the point where a vehicle making deliveries or even a minor accident can cause a total breakdown in traffic operations. With the continued residential development in and around the Hampstead area, Maryland Route 30 will be operating at capacity (LOS "E") by 1990. Without additional capacity, increasingly longer delays and backups will occur during rush hours and will occur with increasing frequency during off peak periods. Traffic operations are hampered by road width and on street parking. At major intersections, it is frequently difficult to bypass left-turning vehicles.

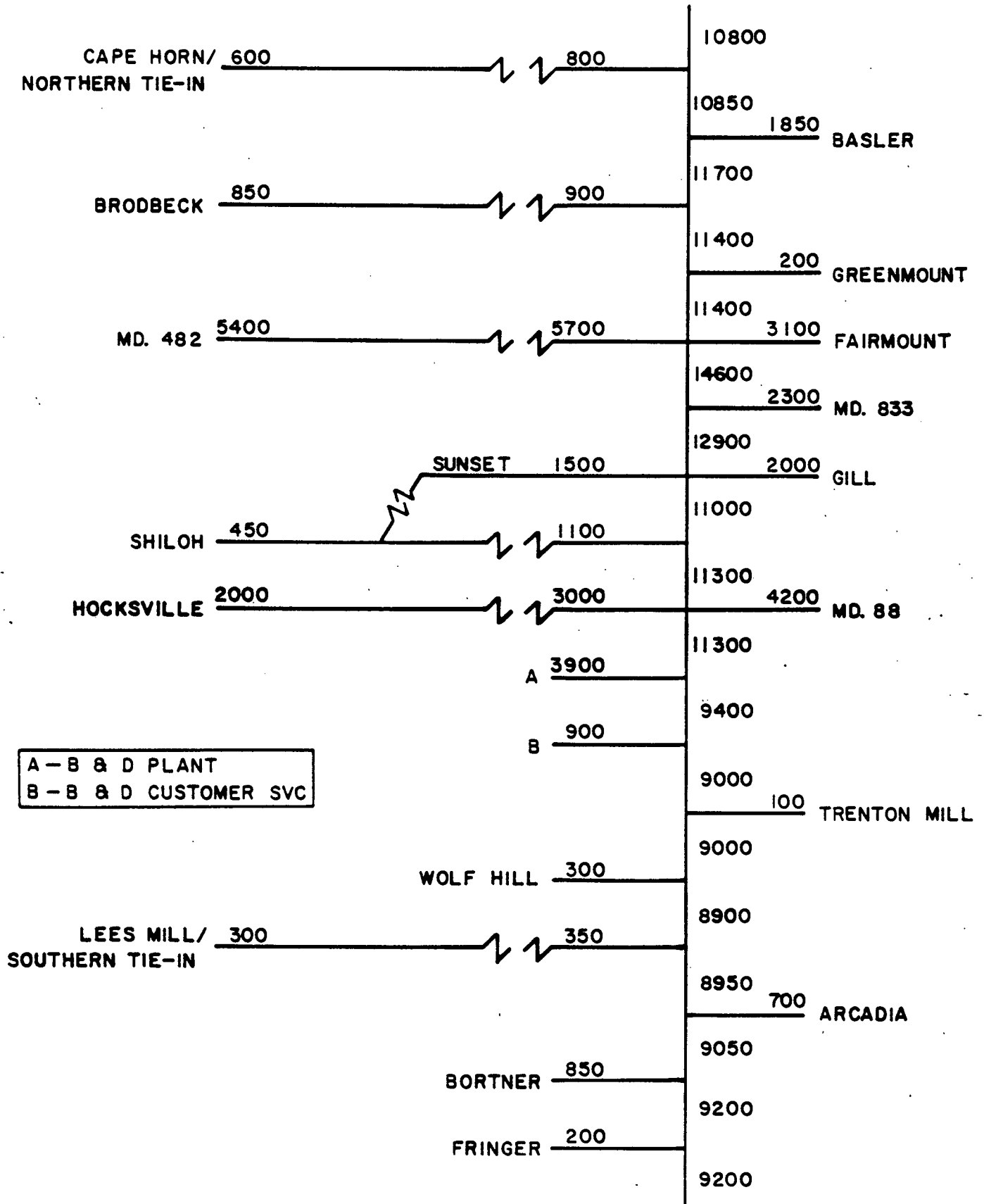
Average daily traffic (ADT) along existing Maryland Route 30 is expected to rise to 21,000 vehicles per day by the design year 2015. (See Figure 8) Truck traffic accounts for 9% of this ADT and decreases to approximately 8% of the peak hour traffic. The majority of the truck traffic consists of heavy duty diesel and gas trucks.

Traffic projections indicate an increase of approximately 3600 vehicles/day along existing Maryland Route 30 between 1995 and 2015 under no-build conditions. This increase is based on expected population growth and area land use patterns.

With the construction of Alternate 2, daily traffic along existing Maryland Route 30 will decrease from a maximum of 21,000 vehicles/day in 2015 under the No-Build to 7,935 vehicles/day.

Construction on the Maryland Route 30 bypass will remove a majority of the traffic from Main Street (Existing Maryland Route 30). Main Street will operate at an acceptable level of service ("A") even during rush hours. The bypass will also operate at an acceptable level of service ("B") reducing delay, and eliminating

MD. 30 HAMPSTEAD BYPASS AVERAGE DAILY TRAFFIC



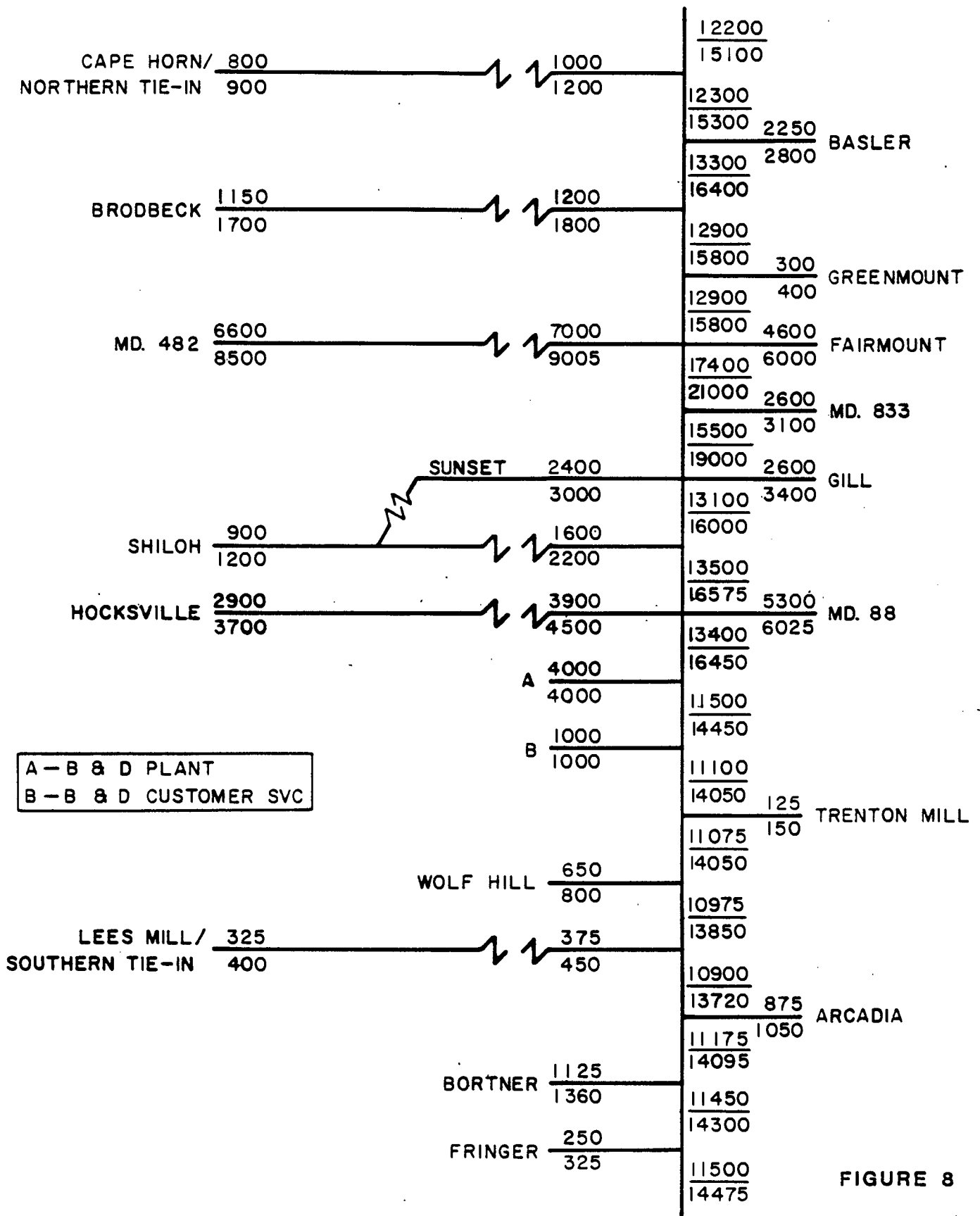
A - B & D PLANT
B - B & D CUSTOMER SVC

MD. 30 FIGURE 7
NO BUILD 1984 ADT

48

MD. 30 HAMPSTEAD BYPASS

AVERAGE DAILY TRAFFIC



A - B & D PLANT
B - B & D CUSTOMER SVC

MD. 30

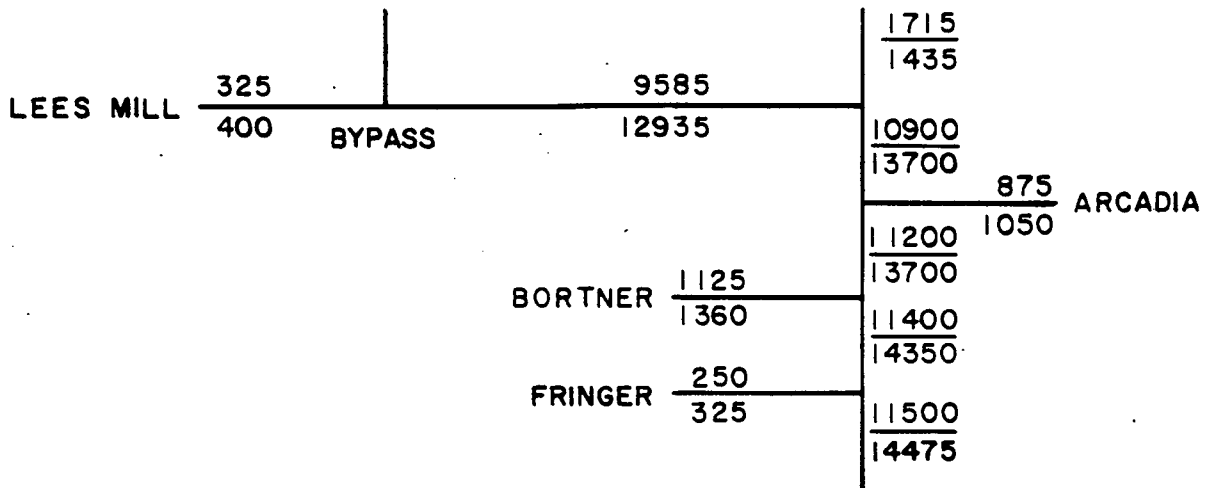
FIGURE 8

NO BUILD 1995 ADT
2015 ADT

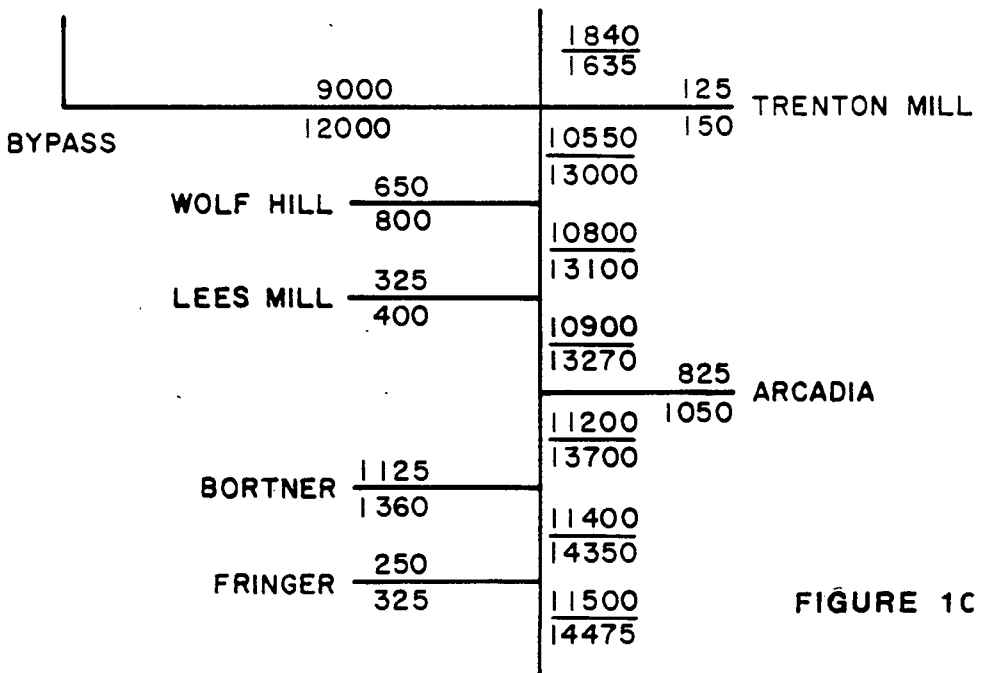
MD. 30 HAMPSTEAD BYPASS

AVERAGE DAILY TRAFFIC

50



MD. 30
SOUTHERN TIE-IN "B" BUILD 1995 ADT
2015 ADT



MD. 30
SOUTHERN TIE-IN "C" BUILD 1995 ADT
2015 ADT

FIGURE 1C

backups for through trips.

Preliminary traffic studies indicate that approximately 65% of the traffic would utilize the bypass. Additionally, the proposed roadway would direct thru traffic around Hampstead thereby increasing peak hour travel speeds from 15 mph to 30 mph on existing Maryland Route 30.

D. Existing Safety Conditions

Maryland Route 30, from the vicinity of Maryland Route 91 in Baltimore County to .39 miles north of Cape Horn Road in Carroll County, experienced an average accident rate of 246 accidents for every hundred million vehicle miles of travel (100MVM) during the three year period, 1981 through 1983. This accident rate significantly exceeds our statewide average accident rate/100MVM of 201 for all similar design roadways now under State maintenance.

There were 212 accidents reported on this section of roadway during the three-year period (1981-1983), five of which were fatal accidents taking the lives of eight persons. The monetary loss to the motoring and general public resulting from the 212 accidents is estimated at approximately \$3 million for every hundred million vehicle miles of travel. These accidents are listed below by severity, indicating persons killed and injured:

<u>Severity</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>Total</u>
Fatal Accidents	3	2	0	5
Persons Killed	5	3	0	8
Injury Accidents	40	32	38	110
Persons Injured	62	53	73	188
Property Damage Only	28	28	41	97
Total Accidents	71	62	79	212

There were two locations within the study area limits meeting our criteria as high accident intersections (HAI). These locations

are noted below indicating total number of accidents and years for which they qualified.

- Maryland Route 30 @ Maryland Route 482 - 6 accidents - 1982
- Maryland Route 30 at Hillcrest - 6 accidents - 1983

There is also one section of roadway that met our criteria as a high accident section (HAS) during the study period. This location is noted below indicating the total number of accidents for the year which it qualified as an HAS:

- Maryland Route 30 from .07 miles north of Maryland Route 88 to .01 miles north of Mathews Alley - 17 accidents (1982)

The existing collision types experienced on Maryland Route 30 compared to statewide averages for this type design highway are listed below:

<u>Collision Type</u>	<u>Study Section Rate (accidents/100MVM)</u>	<u>Statewide Rate (accidents/100MVM)</u>
Angle	25.49	23.74
Rear End	57.92	28.58
Fixed Object	55.61	66.27
Opposite Direction	15.06	17.70
Sideswipe (SD)	13.90	10.82
Left Turn	18.54	10.29
Pedestrian	6.95	3.97
Parked Vehicle	37.07	6.40
Other Collision	15.06	16.89

The type of collisions that significantly exceed our statewide parameters are the rear end, left turn, parked vehicle, and pedestrian accidents. These collision types are mainly associated with congestion. This condition is brought about by a two-lane roadway with restricted passing and limited provisions for left turn movements.

Traffic forecasts for Maryland Route 30 indicate a 40% increase in vehicular volume by the year 2015. The existing roadway is

presently operating at an accident rate significantly higher than our statewide expectations. Considering this fact, as well as the anticipated increase in traffic volumes, the potential for increased rear ends, left turns and pedestrian accidents is greatly enhanced with the expected expansion of the hours of congestion.

Under a No-Build Alternate, existing conditions mentioned above will continue to worsen as vehicular volume continues to grow. The existing two lane roadway would remain unchanged, with traffic volumes increasingly overloading the existing roadway system.

Build Alternate 2, with optional southern tie-ins A, B, and C and northern tie-ins A and B, proposes a two lane roadway with at-grade crossings at all county road intersections. Although the optional tie-ins to the north and south differ, control of access is identical for each. This alternate should experience an accident rate of approximately 201 accidents/100MVM of travel.

The projected rate of 201 accidents/100MVM for Alternate 2, combined with the projected accident rate for the existing Maryland Route 30, would produce an accident rate of approximately 222 accidents/100MVM for the entire corridor. This would generate an estimated accident cost for the total system of approximately \$2.5 million/100MVM, and would result in a societal savings of approximately \$500,000/100MVM over the No-Build Alternate.

In summary, construction of the proposed relocated Maryland Route 30 will provide the motorist with an alternate route of travel. Presently, Maryland Route 30 is being forced to accommodate the total traffic volume. With a projected increase in vehicular volume of 40% by the year 2015, the existing roadway will not safely accommodate increases in traffic of this magnitude.

With the addition of the new road, creating a corridor system, accident costs will be reduced to \$2.5 million/100MVM. The net savings to the motorist, by construction of the proposed facility, will be approximately \$500,000/100MVM over the existing.

The accident costs as indicated include present worth of future earnings of those persons killed or permanently disabled, as well as monetary losses resulting from injury and property damage accidents. The unit costs utilized in the above computations were based upon actual cost values obtained from the National Highway Traffic Safety Administration, and have been updated to 1983 prices.

III. ALTERNATES CONSIDERED

III. ALTERNATES

A. Alternate 1 No-Build

Alternate 1, the No-Build, would provide for routine maintenance. This alternate would not offer any improvement in traffic operation or capacity. No long range improvements would be realized and the traffic congestion in Hampstead would continue to worsen.

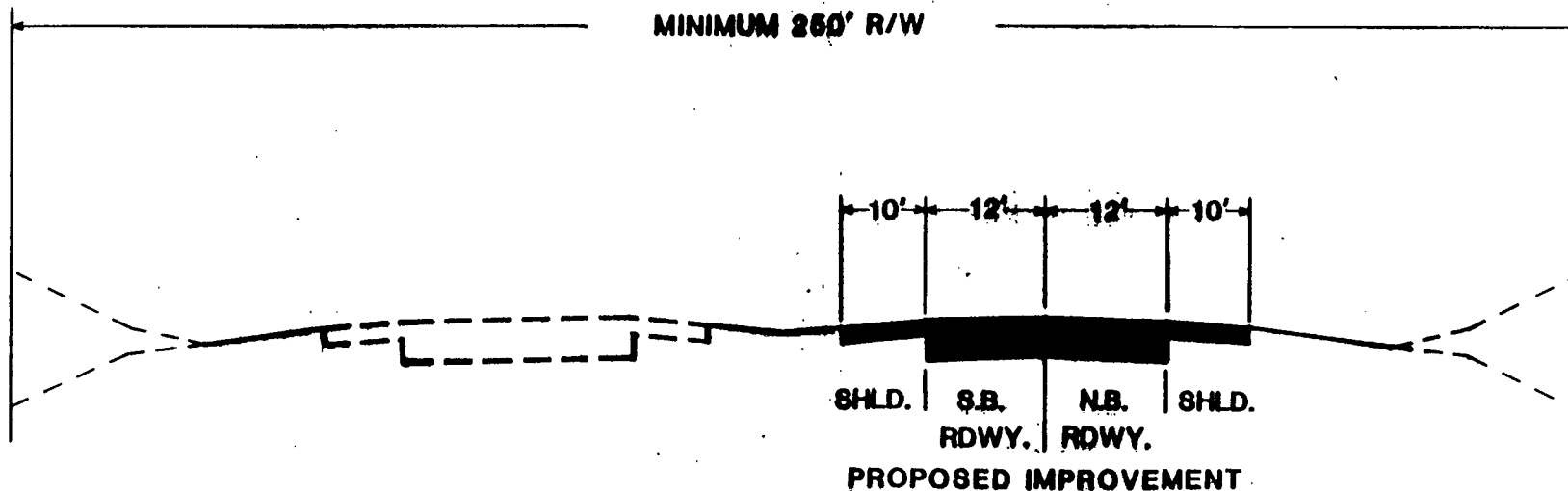
B. Alternate 2

1. Alternate 2 proposes a two lane roadway with access controls except at connecting roadways. The roadway consists of a 24 foot roadway, with ten foot shoulders and appropriate safety grading. The two lane roadway would be built within the proposed minimum 250 feet of right-of-way. (See Figure 11) Left turn storage lanes would be provided on relocated Maryland Route 30 at the following proposed intersections: Fringer and Bortner Roads in Baltimore County and Lees Mill Road, Houcksville Road, Shiloh Road, Maryland Route 482, and Brodbeck and Cape Horn Roads in Carroll County.

Although this study will address a two lane roadway, it is desirable to protect a 250 foot right-of-way corridor for an ultimate long term future four (4) lane divided facility. This planning policy will minimize future impacts.

2. Alternate 2 (See Figure 12) would begin approximately 600 feet north of the existing Maryland Route 30/Maryland Route 91 intersection in Baltimore County. It would diverge from existing Maryland Route 30 in a northeasterly direction and then curve northwesterly crossing to the west side of Maryland Route 30 at a point of approximately 1000 feet south of the existing Maryland

MD. RTE. 30 , HAMPSTEAD BYPASS



TYPICAL ROADWAY SECTION

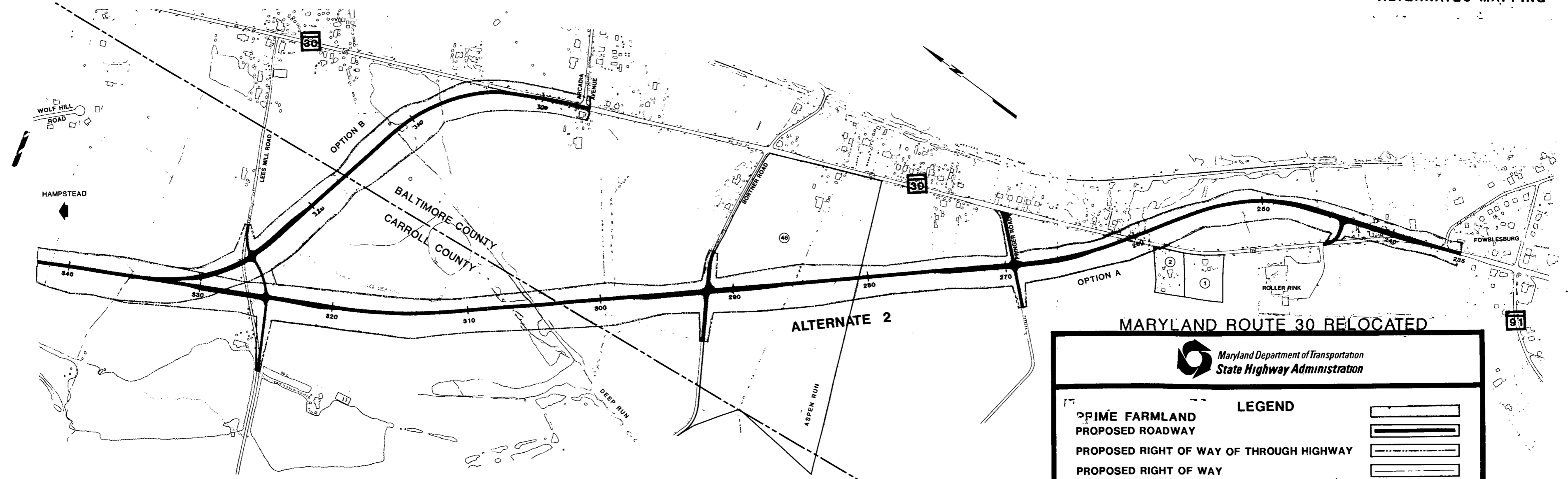
NOT TO SCALE

The dimensions shown are for the purpose of determining cost estimates and environmental impacts and are subject to change during the final design phase.

FIGURE 11

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ALTERNATES MAPPING



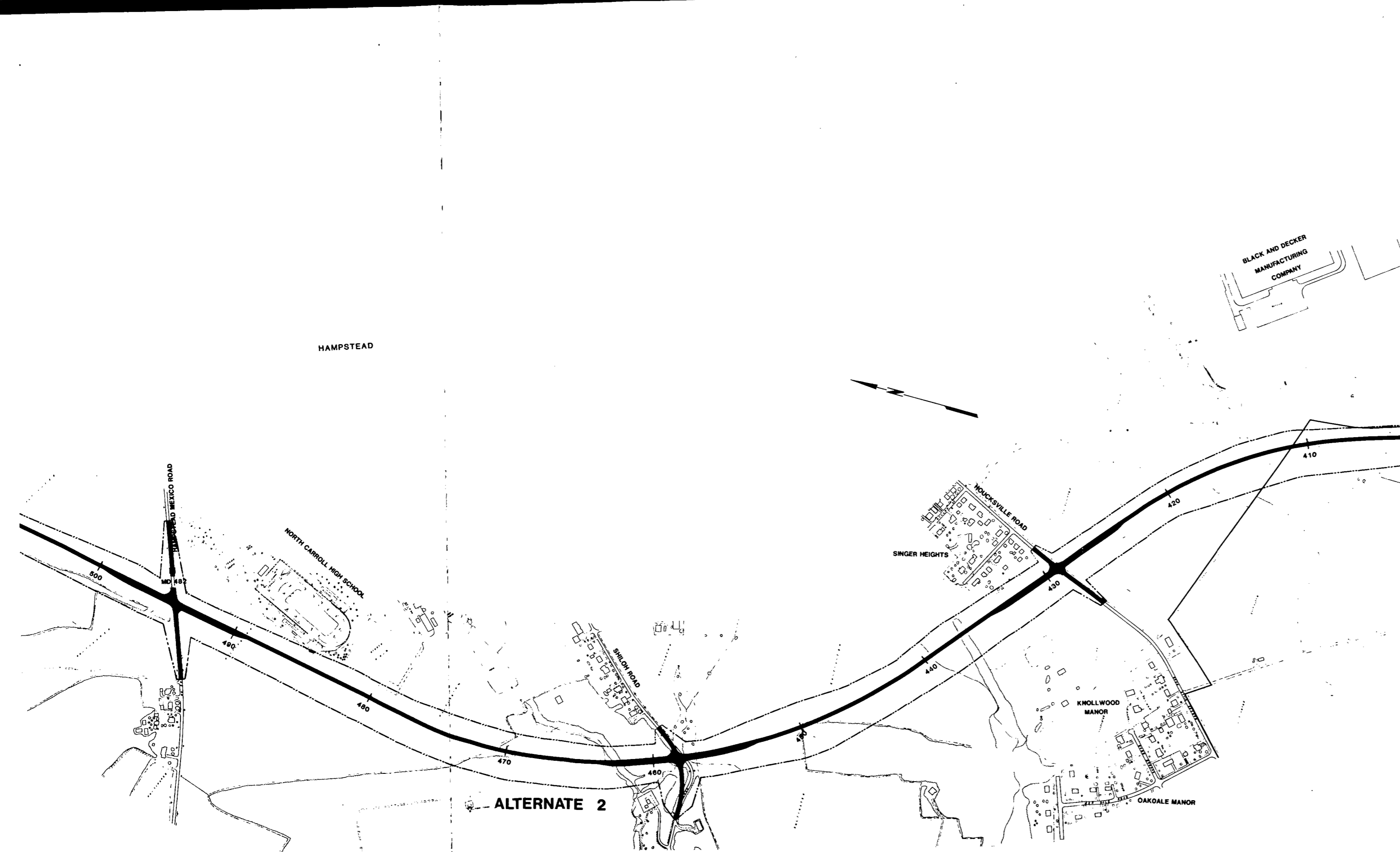
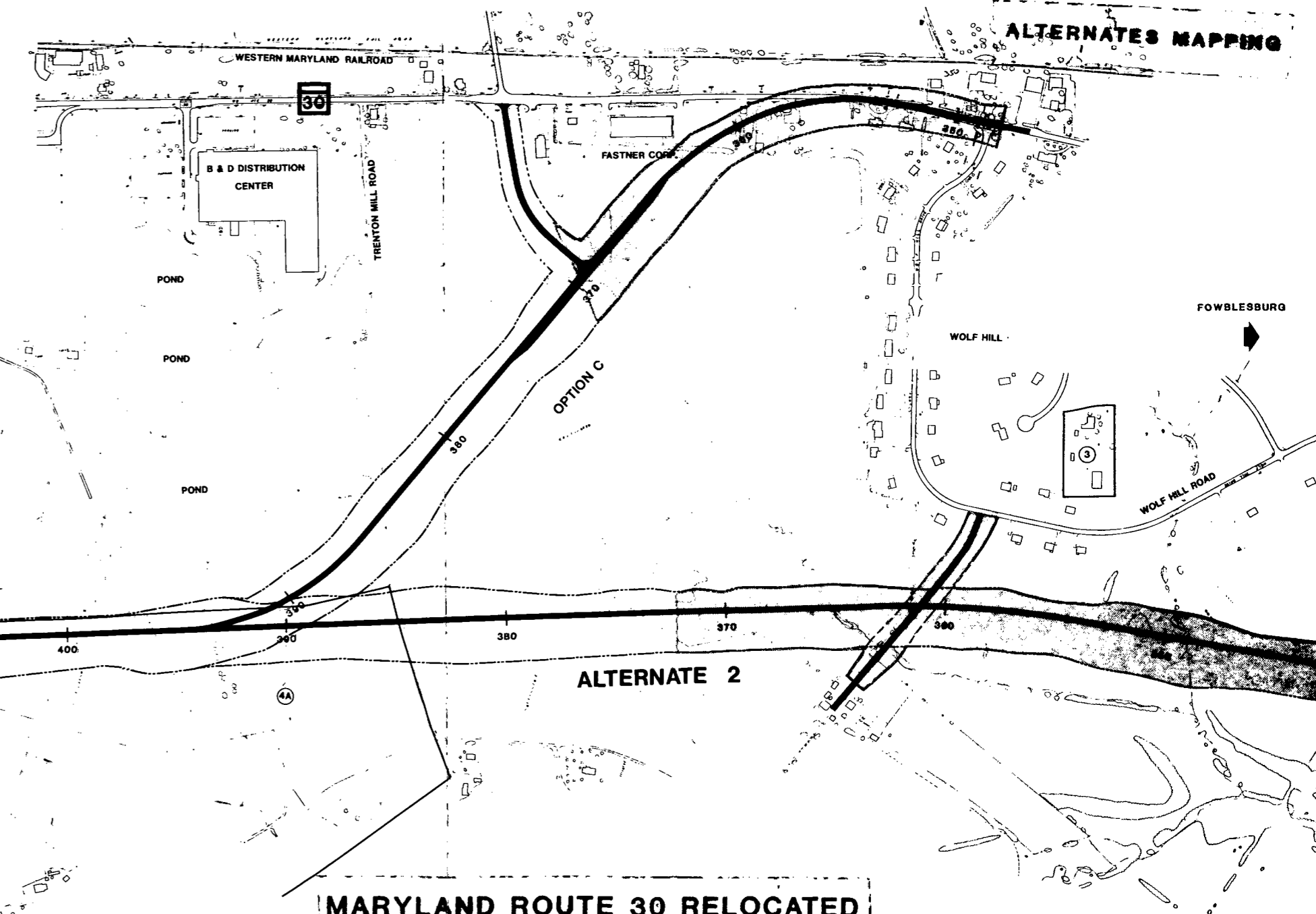
MARYLAND ROUTE 30 RELOCATED



LEGEND	
PRIME FARMLAND	
PROPOSED ROADWAY	
PROPOSED RIGHT OF WAY OF THROUGH HIGHWAY	
PROPOSED RIGHT OF WAY	
HISTORIC SITES	

SCALE 1"=600"

FIGURE 12a

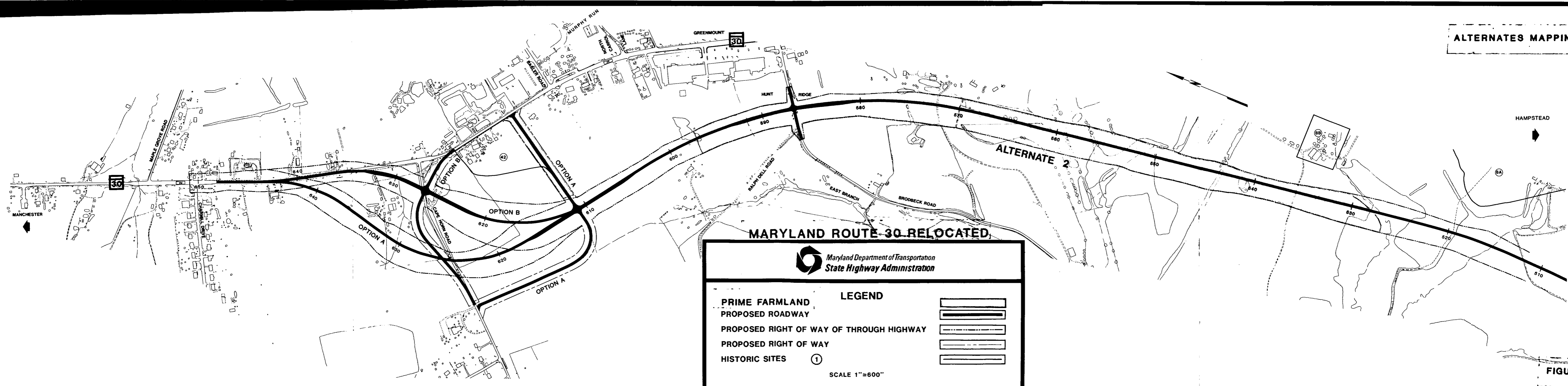


MARYLAND ROUTE 30 RELOCATED

Maryland Department of Transportation
State Highway Administration


LEGEND	
PRIME FARMLAND	
PROPOSED ROADWAY	
PROPOSED RIGHT OF WAY OF THROUGH HIGHWAY	
PROPOSED RIGHT OF WAY	
HISTORIC SITES	

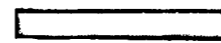
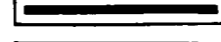
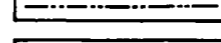
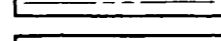

SCALE 1"=600'



ALTERNATES MAPPING

MARYLAND ROUTE 30 RELOCATED


 Maryland Department of Transportation
 State Highway Administration

LEGEND	
PRIME FARMLAND	
PROPOSED ROADWAY	
PROPOSED RIGHT OF WAY OF THROUGH HIGHWAY	
PROPOSED RIGHT OF WAY	
HISTORIC SITES	

SCALE 1"=600'

FIGURE 12c

Route 30/Fringer Road intersection. Alternate 2 would then intersect with Fringer Road approximately 450 feet west of existing Maryland Route 30. Northbound traffic would have the option of continuing on existing Maryland Route 30 directly into Hampstead or diverging left onto the bypass. Southbound traffic on existing Maryland Route 30 would use Fringer Road to proceed onto the bypass.

Continuing northwesterly, Alternate 2 intersects Bortner Road, crosses the County line and enters Carroll County approximately 1100 feet north of Bortner Road. Curving to the right, the alternate takes a more northerly direction and intersects Lees Mill Road approximately 2000 feet west of existing Maryland Route 30. Approximately 2600 feet north of Lees Mill Road, Alternate 2 curves to the left and takes a more northwesterly direction, intersecting the access road just south of the Black and Decker property.

Approximately 2600 feet north of the access road, the alternate curves left and intersects Houcksville Road. After intersecting Houcksville Road, it curves to the right and intersects with Shiloh Road. Shiloh Road would be modified to improve poor curvature at its intersection with the bypass. Continuing by a curve to the right, Alternate 2 intersects Maryland Route 482 (Hampstead Mexico Road) approximately 3500 feet west of existing Maryland Route 30. The alternate then proceeds in a more northerly direction. Approximately 1800 feet south of Brodbeck Road, it curves to the left and takes a more westerly direction and then intersects Brodbeck Road.

Continuing, Alternate 2 curves to the right and intersects Cape Horn Road. The alternate then curves to the left and ties back into existing Maryland Route 30 approximately 200 feet south of Charmil Drive.

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3. Three southern tie-in options and two northern tie-in options are being considered with Alternate 2.

a. Southern Tie-in Options

These options differ in the points at which they diverge from existing Maryland Route 30.

Option A - This southern tie-in option is the same as the previously described southern terminus of Alternate 2 and is approximately 7.9 miles long.

Option B - Option B differs from Option A in that it would diverge from Maryland Route 30 just north of Arcadia Avenue in Baltimore County. It then proceeds in a northwesterly direction crossing Lees Mill Road before tying back into the mainline Alternate 2 alignment. This option is 6.7 miles long.

Option C - Option C diverges from existing Maryland Route 30 further north than Option B at a point just north of Wolf Hill Road, entirely in Carroll County and is 5.8 miles long. This option then proceeds northwest and crosses the access road just south of the Black and Decker plant. Option C ties into Alternate 2 at a point to the rear of the Black and Decker retention pond.

b. Northern Tie-in Options

Under northern tie-in Option A, Cape Horn Road would be relocated approximately 1300 feet south of its present location. Southbound traffic may utilize the new roadway to bypass Hampstead or remain on existing Maryland Route 30 to proceed directly into town. Northbound traffic on existing Maryland Route 30 would utilize Relocated Cape Horn Road to gain access to the bypass.

Option B - Option B would intersect Cape Horn Road approximately 300 feet west of the existing Maryland Route 30/Cape

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Horn Road intersection. No major relocation of Cape Horn Road would be required with this option.

IV. ENVIRONMENTAL IMPACTS

IV. ENVIRONMENTAL IMPACTS

A. Social/Economic Impacts

1. Social Impacts

Community Impacts

Positive impacts to the community would result from Alternate 2. Because traffic congestion would be relieved in Hampstead access to community facilities and services would improve. Reducing congestion would improve pedestrian safety.

The No-Build Alternate would aggravate congestion in Hampstead reducing local residents' access to community facilities and services, thus discouraging travel and interaction within the community.

2. Relocations

The construction of Alternate 2 and associated southern and northern tie-in options would result in several relocations. In Baltimore County, southern tie-in option A requires the relocation of two owner-occupied residences with an estimated six persons. One two story store (located in Baltimore County) would also be required. Only one residence would be relocated under southern tie-in option B. Three owner-occupied dwellings with nine (9) individuals, two apartment houses with six dwelling units for approximately twelve individuals and one business with three employees would be relocated under southern tie-in option C. No farms or non-profit organizations would be displaced with either southern tie-in option.

Northern tie-in options A and B would each displace the same business, a service station-garage with three employees. Northern option A also displaces five owner-occupied dwellings with an

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estimated fifteen persons. One cattle farm would be affected due to severance damages. Northern option B displaces six owner-occupied dwellings with an estimated eighteen persons. Access to the cattle farm would be cut off under this option. No non-profit organizations would be displaced.

A lead time of six months to one year would be necessary to complete the relocation of the displacees. Ample decent, safe, and sanitary housing would be available to meet the needs of all those displaced except the affected service station. No replacement sites are available for the service station at this time. There are no Federal, state or municipal projects that should affect the supply of housing. All relocation would be accomplished in accordance with the "Uniform Relocation Assistance and Land Acquisition Policies Act". (See Appendix)

No displacement of the elderly, the handicapped or minorities would occur.

No relocations would occur under the No-Build Alternate.

TITLE VI STATEMENT

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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3. Economic Impacts

The proposed relocation of Maryland Route 30 would relieve traffic congestion within Hampstead, allowing improved access to businesses along Main Street and elsewhere in Hampstead. Studies of bypasses around small towns show that when through traffic is diverted away from the central business districts (CBD), businesses within the CBD frequently experience gains in retail sales.¹

Since few of the businesses along Main Street are geared to serve through traffic, only a small percentage of potential customers would be directed away from the town. Furthermore, improved traffic circulation and safety would allow local customers better access to the CBD.

Because the proposed project would be a controlled access highway, there would be no opportunity for strip development to spring up along the new roadway. Thus, the businesses in Hampstead would not be subject to either competition from new businesses spurred by the bypass, or to pressure to move out of the central business district.

Finally, the local industrial community would benefit from the relocation of Maryland Route 30. Supplies and goods would be transported more easily in and out of the area, and many employees of the industries south of town would have safer, faster access in their workplace.

The No-Build Alternate would negatively impact the local business community by reducing safe access to businesses within the commercial core, as well as, to the workplace of many area residents.

1 Social and Economic Effects of Highways, Federal Highway Administration, Washington, D.C. 1976

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4. Land Use Impacts

Since Maryland Route 30 Relocated would be a controlled access facility it would have no significant impact on local land use patterns.

The land surrounding the proposed roadway is currently intended by the Carroll County Planning Commission for residential, commercial and industrial development. The proposed roadway would support the county's goals for relieving traffic congestion. This, in turn, would allow the county to proceed with planned development that is supported by an adequate transportation network.

The No-Build Alternate is not consistent with Carroll County's goals for providing an adequate transportation network for planned and local development. Failure to improve this network could result in delaying planned development, or it could result in pressure to develop further away from Hampstead in areas designated for conservation or farmland preservation.

5. Recreational Facilities

The construction of either of the relocation options would not require the loss of any land utilized for parks. Although the alternates mapping shows that property would be acquired from the athletic field area of North Carroll High School, the alignment has been modified to avoid any aquisition.

A No-Build Alternate precludes the loss of park or recreational lands to highway development.

B. Historic and Archeological Impacts

Four historic sites in the study area which are potentially

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eligible for the National Register will be impacted by the construction of Alternate 2. Historic boundaries are shown on Figures 12 and 13.

Property will be required from the following historic sites if the Build Alternate is selected. Acreage required for construction is indicated in the following table. Additional discussion can be found in the Section 4(f) Evaluation (Section F).

<u>Site</u>	<u>Total Acreage</u>	<u>Acreage Required</u>
(2) Henry Fringer House	3 ± acres	.02 ± acres
(46) Baumann House	51 ± acres	7 ± acres
(4A) Elias Houck Residence/ Leister Farm	165 ± acres	13 ± acres
(42) Garrett Farm	7.5 ± acres	0.8 ± acres

Archeology

An archeological reconnaissance was conducted in the project area. One site was identified in the vicinity of the proposed right-of-way. It is considered a sensitive area and will be fenced and avoided during construction.

C. Natural Environmental Impacts

1. Geology, Topography, and Soils

The geology in the study area would not be significantly altered by any of the proposed improvements. Deep cuts into bedrock material are not anticipated.

General topography would be altered slightly to maintain proper roadway geometry over the rolling terrain. Existing drainage patterns would be maintained to the extent possible.

Soils in the study area are generally suitable highway construction. Sediment and erosion control measures would be most

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critical in areas of stream crossings. Soils in these areas tend to be easily saturated, with poor stability due to stream cut slopes and have severe erosion potential. The State Highway Administration would provide (as approved by Maryland DNR) sediment and erosion control measures to minimize soil and stream impacts for all build options.

Alternate 2 would require the conversion of prime farmland soils (as identified by the USDA, Soil Conservation Service) to right-of-way. The following table summarizes the prime farmland soil loss and the amount of land currently under cultivation that would be needed for the project. Figure 12 indicates the prime farmland soils required for right-of-way purposes.

TABLE 4
FARMLANDS ACRES

	A	<u>Northern Tie-in</u>	B
<u>Southern Tie-in</u>			
A	111 / 194.6		104 / 181.2
B	96.6 / 165.0		89.6 / 151.6
C	84.6 / 132.1		77.6 / 118.7
Prime Farmland Soils / Active Agriculture			

Coordination is underway with the Soil Conservation Service in accordance with the Farmland Protection Policy Act.

No impacts to geology, topography or soils would occur with the No-Build Alternate.

2. Groundwater

Construction of Alternate 2 and its tie-in options would

nl

require the conversion of open ground to impervious highway surfaces. This loss of groundwater recharge area would not be significant and would not adversely affect groundwater supplies in the area.

Operation and maintenance of a highway results in the deposition of various contaminants on the roadway surface and adjacent right-of-way. These include, but are not limited to, rubber, metals, petroleum products, coolants, and de-icing compounds. These contaminants are flushed from the road in stormwater runoff. The open cross-section of Alternate 2 would allow stormwater to run off to open grassed areas where contact with vegetation and percolation into the soil would filter out most of the contaminants before it could reach groundwater supplies. Groundwater quality would not be significantly affected by highway construction.

The No-Build Alternate would not affect groundwater.

3. Surface Waters

Construction of Alternate 2 and its tie-in options could affect surface water quality in two ways. Erosion and sedimentation during construction would be a temporary impact. Contamination from polluted roadway runoff could occur throughout operation of the highway.

Strict adherence to approved sediment and erosion controls will be used to minimize adverse impacts to streams. The areas near stream crossings would be particularly sensitive. Sediment and erosion control measures which could be used include:

- immediate stabilization of all graded areas

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- temporary sediment traps
- interceptor ditches
- sediment filter fabric
- mulching and seeding

Specific measures would be developed and specified during final design, and the Sediment and Erosion Control Plan would be approved by the Sediment and Erosion Control Division of Maryland DNR's Water Resources Administration.

Construction of any of the build options would reduce long-term sediment loads to area streams by converting agricultural land to roadway surfaces and right-of-way. These stabilized surfaces would contribute insignificant sediment loads once construction is complete.

Contamination from polluted roadway runoff would result from operation and maintenance of the highway. These contaminants are generally diluted enough not to pose a threat to water quality. The use of stormwater management techniques and vegetated slopes and ditches would provide sufficient filtration so that contamination would not adversely affect surface water quality. Stormwater Management would be implemented. The plans would be approved by the Maryland DNR, Water Resources Administration.

The existing sediment and nutrient loading would continue under the No-Build Alternate due to agricultural activities.

Alternate 2 would require the crossing of several small streams. Preliminary hydraulic information indicates these crossings would be provided by pipes. None of the streams are within designated 100 year floodplains and would probably not require any permits from the Department of Natural Resources or the

U.S. Army Corps of Engineers. However, coordination will continue with these agencies through final design. The following table summarizes the stream crossings required for each tie-in option:

TABLE 5

<u>Stream Crossing</u>	<u>Northern Tie-in</u>	
	A	B
Southern Tie-in	A	9
	B	7
	C	4

The primary impact of these crossings would be erosion and sedimentation during construction. Once stabilized, no further adverse effects are expected. Strict sediment and erosion control, as discussed previously would minimize these impacts.

The No-Build Alternate would not require any new stream crossings.

4. Terrestrial Habitat

Land cover in the project area is primarily agricultural with isolated wooded areas. Little natural habitat remains. The loss of agricultural fields would not be significant as wildlife habitat. The loss of forest habitat would reduce the area available for wildlife populations. The following table shows how much open land habitat would be converted to highway right-of-way.

TABLE 6

<u>Agricultural Land (acres)</u>	<u>Northern Tie-in</u>	
	A	B
Southern Tie-in	A	194.6
	B	165.0
	C	132.1

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The table below summarizes the wooded habitat which would be removed with Alternate 2.

TABLE 7

<u>Woodland Habitat (acres)</u>	<u>Northern Tie-in</u>		
	A	B	
Southern Tie-in	A	35.8	38.7
	B	34.6	37.5
	C	32.8	35.7

The loss of any wildlife habitat would result in a proportional loss in population. A minor shift in species composition would occur as the size of individual habitats are reduced below threshold levels for a particular species. Species which use the agricultural fields would not be as affected because that habitat would remain abundant.

Road kills would increase along the new roadway, particularly where animal home ranges are divided by the right-of-way. These would level off as adjustments are made by wildlife to their territories and foraging patterns.

No impacts to terrestrial habitat or wildlife would occur with the No-Build Alternate.

5. Aquatic Habitat

Temporary degradation of aquatic habitat due to erosion and sedimentation is likely to occur during construction of Alternate 2. Loss of habitat would result from the placement of pipes and roadway fill in existing stream beds. Most of the streams being crossed are ephemeral and do not maintain year round fish populations. No significant reductions in aquatic life are expected to occur from

temporary sedimentation or from stormwater runoff.

6. Threatened or Endangered Species

There are no known populations of listed threatened or endangered species in the study area.

D. Noise Levels and Noise Impacts

The method used to predict the future noise levels from the proposed relocation of Maryland Route 30 was developed by the Federal Highway Administration of the U.S. Department of Transportation. The FHWA Highway Traffic Noise Prediction Model (FHWA Model) incorporates data pertaining to normal traffic volume increases over time, utilizes an experimentally and statistically determined reference sound level for three (3) classes of vehicles (auto, 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 the number of vehicles, average vehicles speed, and specifies a time period of consideration; 2) distance adjustment comparing a reference distance and actual distance between receiver and roadway, including roadway width and number of traffic lanes; and 3) adjustment for various types of physical barriers that would reduce noise transmission from source (roadway) to receiver.

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

The determination of environmental noise impacts 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

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Administration's noise abatement criteria/activity relationship (See Table 8) published in FHPM 7-7-3.

When design year L_{eq} noise levels are projected to exceed the abatement criteria (Table 8) or increases ambient conditions by more than 10 dBA, noise abatement measures (in general, noise barriers) are considered to minimize impacts. Consideration is based on the size of the impacted area (number of structures, spacial distribution of structures, etc.), the predominant activities carried on within the area, the visual impact of the control measure, practicality of construction, and economic feasibility.

Economic assessment is based on the following assumptions. An effective barrier should provide a 10 dBA reduction in the noise level, as a preliminary design goal. For the purpose of comparison, a total cost of \$25.00 per square foot is assumed to estimate total barrier cost.

The results of the modeling show several situations where the predicted noise levels are lower than the current measured ambient levels. The explanation for this is based upon the fact that the ambient noise levels can be expected to fluctuate during the day and from day-to-day. This is due to differing traffic volumes, vehicle mix and speeds, influence from non-highway noise sources, etc. The monitoring programs did not attempt to determine vehicular volume, mix or speed, therefore, it can be expected that there may be circumstances where predicted levels do not equal or exceed monitored values.

1. Alternate 1 - No-Build Alternate

A total of eight (8) noise sensitive areas (NSA) are associated

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TABLE 8

NOISE ABATEMENT CRITERIA 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 sport 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 (Exterior)	55 (Exterior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

TABLE 9

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PROJECT NOISE LEVELS										
Maryland Route 30										
NSA	DESCRIPTION	AMBIENT L _{eq}	DESIGN YEAR (2015) L _{eq}							
			No Build	Alt. 2	Southern Options			Northern Options		
					A	B	C	A	B	
1	Residential (Historic)	68	62		58	67	67			
2	Residential (Historic)	68	56		58	62	62			
3	Residential (Historic)	56	55		55	60	60			
4	Residential	55	*		59	54	*			
5	Residential (Wolf Hill)	45	*		59	59	*			
6	Residential	70	61	**	**	**	56			
7	Residential	55	*	60	60	60	60			
8	Residential	55	*	59	**	**	**			
9	School	53	*	52						
9a	School	53	*	58						
10	Church	62	61	*						
11	Residential (Historic)	45	*	58						
12	Residential	45	*	59						
13	Residential	66	66	*				**	**	
14	Residential	45	*	64				64	64	
15	Residential (Historic)	60	68	**				56	57	
16	Residential	60	55	**				61	62	
			Notes: *NSA is distant from alternate under analysis.							
			**NSA not within limits of alternate.							

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with this alternate. (See figure 13)

One (1) of eight modeled sensitive receptor sites will experience design year noise levels which exceed the FHWA L_{eq} 67 dBA noise abatement criteria. NSA 15 (Historic Site) will experience an eight decibel increase over the ambient L_{eq} level under the No-Build Alternate, raising the noise level to one decibel over the abatement criteria. Noise mitigation measures are not recommended for this alternate as this noise level is expected to occur without any improvements to the existing highway.

2. Alternate 2 and Optional Tie-ins

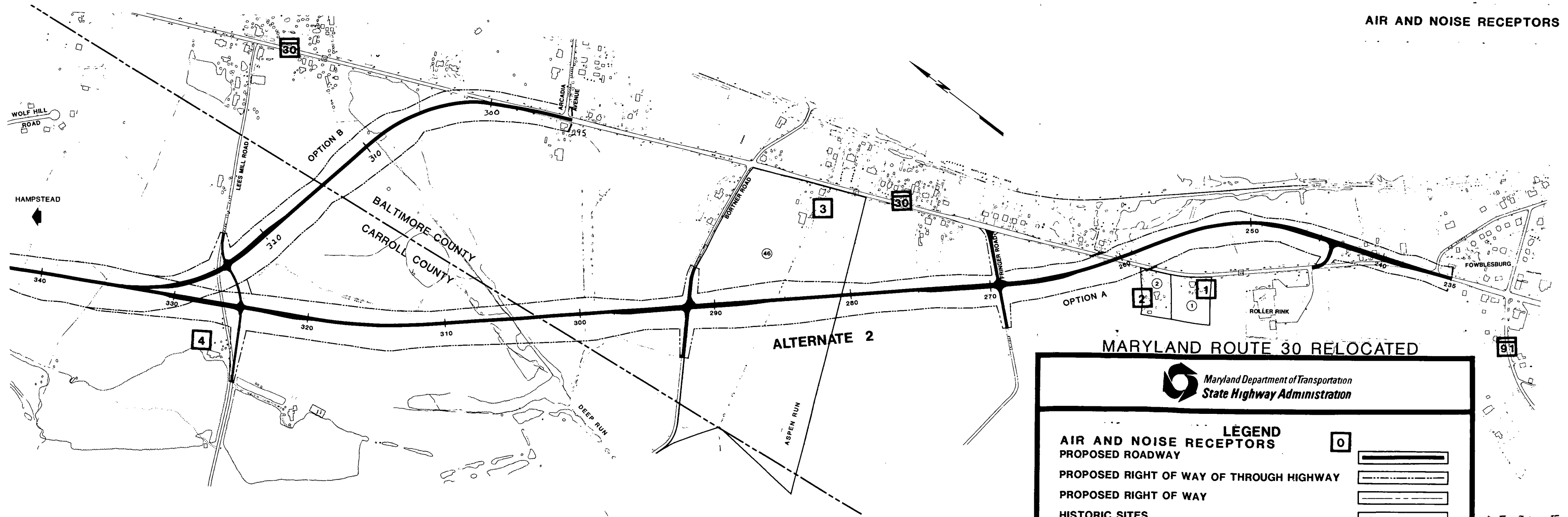
A total of fifteen (15) NSA's were analyzed for Alternate 2 and associated options. The L_{eq} noise levels would increase 1-19 dBA over present levels. The FHWA L_{eq} 67 dBA noise abatement criteria would not be exceeded at any of the NSA's.

Table 9 indicates that of the NSA's analyzed, four would experience an increase over ambient levels of greater than 10 dBA. These are receptor sites 5, 11, 12 and 14. Based upon these projected increases noise abatement has been considered at each receptor. A summary of this follows.

Site 5, the Wolf Hill Subdivision, would be affected by the southern tie-in options A and B equally. Neither southern Option C nor the remainder of the bypass alternate would adversely impact this site. Abatement opportunities were investigated to determine if the effects of Options A and B could be minimized.

The exposure of the Wolf Hill Subdivision to the bypass extends about 3,000 feet. The ambient noise level of 45 dBA would be

AIR AND NOISE RECEPTORS



MARYLAND ROUTE 30 RELOCATED

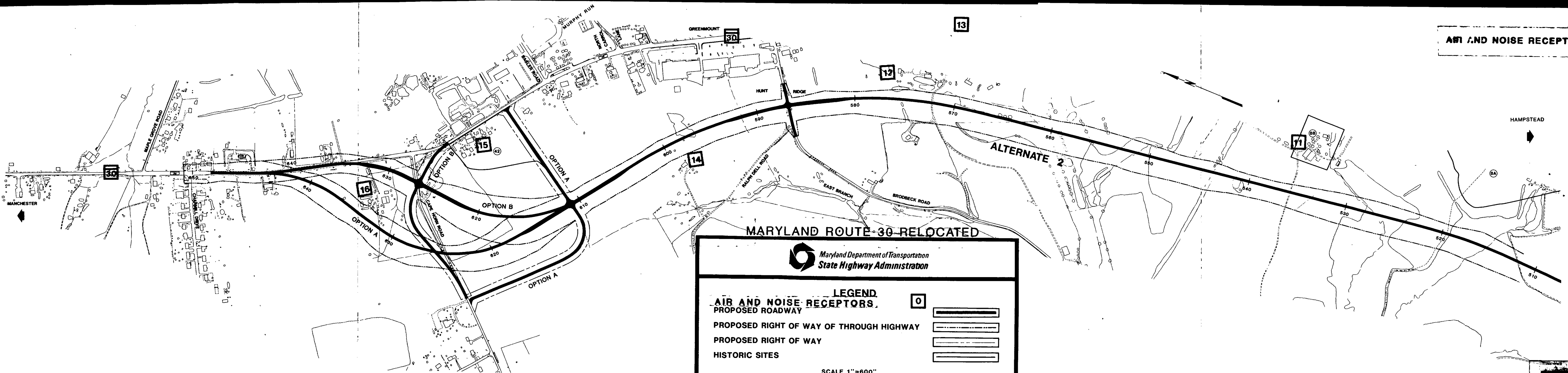


LEGEND

- AIR AND NOISE RECEPTORS 0
- PROPOSED ROADWAY
- PROPOSED RIGHT OF WAY OF THROUGH HIGHWAY
- PROPOSED RIGHT OF WAY
- HISTORIC SITES


SCALE 1"=600'


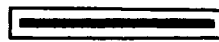
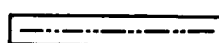
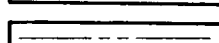
FIGURE 13a



AIR AND NOISE RECEPTORS

MARYLAND ROUTE 30 RELOCATED


 Maryland Department of Transportation
 State Highway Administration

LEGEND	
AIR AND NOISE RECEPTORS PROPOSED ROADWAY	
PROPOSED RIGHT OF WAY OF THROUGH HIGHWAY	
PROPOSED RIGHT OF WAY	
HISTORIC SITES	

SCALE 1"=600"

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increased to 59 dBA (which does not exceed the FHWA noise abatement criteria) with the presence of the bypass. The abatement analysis considered several barrier height alternatives. A 24 to 28 foot barrier would reduce the predicted noise level to 53 dBA at a cost of approximately \$1,625,000. The cost per residence would be \$162,500 for the ten (10) residences protected.

Site 11 (ambient level of 45 dBA) is a single family residence (Historic) where the noise level would increase 13 dBA over the ambient for any build alternate. However, projected noise levels do not exceed the FHWA abatement criteria. A 16 foot barrier \pm 1,200 feet in length would decrease the impact by 4 dBA. To achieve a 7-10 dBA reduction in design year levels, a barrier approximately 22 feet in height would be required. The reason for this barrier height is because the receptor is located approximately 600 feet from the highway and the further the receiver is from the noise source, the higher a barrier must be to provide the desired protection. The cost of the 22-foot barrier would be approximately \$660,000.

Site 12 (ambient level of 45 dBA) would require a 22 foot barrier in order to achieve a 7-10 dBA reduction in projected noise levels. The cost of a 22-foot barrier would be \$687,500.

The single residence at Site 14 (ambient level of 45 dBA) would require a \pm 1,365 foot barrier 16 feet high to lower the projected noise level by 10 decibels. The cost of this barrier would be \$550,000.

While noise barriers are not recommended for these sites,

landscaping and plantings may be feasible and will be studied in further detail during the design phase of the project.

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

- Bulldozers and Earth Movers
- Graders
- Front End Loaders
- Dump and Other Diesel Trucks
- Compressors

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

Maintenance of construction equipment will be regular and thorough to minimize noise emissions because of inefficiently tuned engines, poorly lubricated moving parts, or poor or ineffective muffling systems, etc.

E. Air Quality Impacts

1. Analysis Objectives, Methodology, and Results

The objective of the air quality analysis is to compare the carbon monoxide (CO) concentrations estimated to result from traffic configurations and volumes of each alternate with the State and National Ambient Air Quality Standards (S/NAAQS). The NAAQS and SAAQS are identical for CO: 35 PPM (parts per million) for the maximum 1 hour period and 9 PPM for the maximum consecutive 8 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 1 hour and 8 hour CO concentrations at sensitive receptor sites under worst case meteorological conditions for the No-Build and Build Alternate including northern tie-in Options A and B, and southern tie-in options A, B and C for the design year (2015) and the estimated year of completion (1995).

a. Analysis Inputs

A summary of analysis inputs is given below. More detailed information concerning these inputs is contained in the Maryland Route 30 Air Quality Analysis which is available for review at the Maryland State Highway Administration, 707 North Calvert Street, Baltimore, Maryland, 21202.

Background CO Concentrations

In order to calculate the total concentration of CO which occurs at particular receptor site during worst case meteorological conditions, the background CO concentrations are considered in addition to the levels directly attributable to the facility under

consideration. The background concentration resulting from area-wide emissions from both mobile and stationary sources was assumed to be the following:

	CO, PPM	
	1 hour	8 hour
1990	2.0	1.0
2010	2.0	1.0

Traffic Data, Emission Factors, and Speeds

The appropriate traffic data was utilized as supplied by the Bureau of Highway Statistics (September, 1984) of the Maryland State Highway Administration.

The composite emissions factors used in the analysis were derived from the Environmental Protection Agency (EPA) Mobile Source Emission Factors (March, 1978) and were calculated using the EPA MOBILE 1 computer program. An ambient air temperature of 20° F was assumed in calculating the emission factors for the 1 hour analysis and 35° F for the 8 hour analysis in order to approximate worst case results for each analysis case. Credit for a vehicle inspection maintenance (I/M) emission control program beginning in 1984 was included in the emission factor calculations.

Average vehicle operating speeds used in calculating emission factors were based on the capacity of each roadway link considered, the applicable speed limit, and external influences on speed through the link from immediately adjacent links. Average operating speeds ranges from 15 mph to 50 mph depending upon the roadways and alternate under consideration.

Meteorological Data

Worst-case meteorological conditions for 1 meter/second for

wind speed and atmospheric stability class F were assumed for both the 1 hour and 8 hour calculations. In addition, as stated above, a worst-case temperature of 20° F was assumed for the 1 hour analysis and 35° F for the 8 hour analysis.

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

b. Sensitive Receptors

Site selection of sensitive receptors were made on the basis of proximity to the roadway, type of adjacent land use, and changes in traffic patterns on the roadway network. Sixteen (16) receptor sites were chosen for this analysis consisting of fourteen (14) residences, a church, and a school. The receptor locations were verified during study area visits by the analysis team. The receptor sites are shown on Figure 13 and a description of the sites follows:

<u>Site No.</u>	<u>Description/Location</u>
1 & 2	Residence, 2 1/2 story brick (Historic sites) Maryland Route 30 (Hanover Pike)
3	Residence, 2 1/2 story frame (Historic site) Maryland Route 30 (Hanover Pike)
4	Residence, 1 story stone/frame Lees Mill Road
5	Residence, Bi-level brick/frame Wolf Hill Road
6	Residence, 2 1/2 story frame (Hanover Pike)
7	Residence, 1 story frame duplex Singer Road
8	Residence, 1 1/2 story frame Shiloh Road

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<u>Site No.</u>	<u>Description/Location</u>
9	North Carroll High School, air-conditioned 2 story brick
10	St. Mark's Evangelical Lutheran Church Stone/brick
11	Residence, 2 story stone Hanover Road (Historic Site)
12	Residence, Bi-level brick/frame Sterling Court
13	Residence, 2 story frame Maryland Route 30
14	Residence, 1 story frame Ralph Dell Road
15	Residence, 2 story brick (Historic site) Maryland Route 30 (Hanover Pike)
16	Residence, 2 1/2 story frame Maryland Route 30

c. Results of Microscale Analysis

The results of the calculations of CO concentration at each of the sensitive receptor sites for the No-Build and Build Alternates are shown on Tables 10 and 11. The values shown consist of predicted CO concentration attributable to traffic on various roadway links plus projects background levels. A comparison of the values in Tables 10 and 11 with the S/NAAQS shows that no violations will occur for the No-Build or Build Alternates in 1995 or 2015 for the 1 hour or 8 hour concentrations of CO. The projected CO concentrations vary between alternates depending on receptor locations as a function of the roadway locations and traffic patterns associated with each alternate.

Generally, for the 1995 analysis the No-Build Alternate creates slightly higher concentrations than the Build Alternates due to the

TABLE 10
 1995
 CO CONCENTRATIONS* AT EACH RECEPTOR SITE, PPM

Receptors	No-Build		Build (mainline)		Northern Tie-in				Southern Tie-in					
	1 HR	8 HR	1 HR	8 HR	Option "A"		Option "B"		Alt. 2A		Alt. 2B		Alt. 2C	
	1 HR	8 HR	1 HR	8 HR	1 HR	8 HR	1 HR	8 HR	1 HR	8 HR	1 HR	8 HR	1 HR	8 HR
1	2.5	1.2	2.0	1.0	--	--	--	--	2.1	1.1	2.3	1.2	2.3	1.2
2	2.2	1.1	2.0	1.0	--	--	--	--	2.0	1.0	2.1	1.1	2.1	1.1
3	2.2	1.1	2.0	1.0	--	--	--	--	2.0	1.0	2.1	1.1	2.1	1.1
4	2.0	1.0	2.0	1.0	--	--	--	--	2.0	1.0	--	--	--	--
5	2.1	1.0	2.0	1.0	--	--	--	--	--	--	--	--	--	--
6	2.4	1.2	2.1	1.1	--	--	--	--	--	--	--	--	--	--
7	2.0	1.0	2.1	1.1	--	--	--	--	--	--	--	--	--	--
8	2.0	1.0	2.1	1.1	--	--	--	--	--	--	--	--	--	--
9	2.1	1.0	2.0	1.0	--	--	--	--	--	--	--	--	--	--
10	2.9	1.3	2.2	1.1	--	--	--	--	--	--	--	--	--	--
11	2.1	1.0	2.0	1.0	--	--	--	--	--	--	--	--	--	--
12	2.2	1.1	2.1	1.1	--	--	--	--	--	--	--	--	--	--
13	2.7	1.3	2.1	1.1	--	--	--	--	--	--	--	--	--	--
14	2.1	1.0	2.1	1.1	2.1	1.1	2.1	1.1	--	--	--	--	--	--
15	2.4	1.2	2.0	1.0	2.1	1.1	2.1	1.1	--	--	--	--	--	--
16	2.2	1.1	2.0	1.0	2.1	1.1	2.1	1.1	--	--	--	--	--	--

*Including Background Concentrations

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

TABLE 11

2015
CO CONCENTRATIONS* AT EACH RECEPTOR SITE, PPM

Receptors	No-Build		Build (mainline)		Northern Tie-in				Southern Tie-in					
	1 HR	8 HR	1 HR	8 HR	Option "A"		Option "B"		Alt. 2A		Alt. 2B		Alt. 2C	
					1 HR	8 HR	1 HR	8 HR	1 HR	8 HR	1 HR	8 HR	1 HR	8 HR
1	2.8	1.3	2.0	1.0	--	--	--	--	2.1	1.1	2.4	1.3	2.4	1.4
2	2.5	1.2	2.0	1.0	--	--	--	--	2.1	1.1	2.1	1.1	2.1	1.1
3	2.3	1.1	2.0	1.0	--	--	--	--	2.1	1.1	2.1	1.1	2.2	1.1
4	2.1	1.0	2.0	1.0	--	--	--	--	2.1	1.1	--	--	--	--
5	2.1	1.0	2.0	1.0	--	--	--	--	--	--	--	--	--	--
6	2.6	1.2	2.1	1.1	--	--	--	--	--	--	--	--	--	--
7	2.1	1.0	2.1	1.1	--	--	--	--	--	--	--	--	--	--
8	2.0	1.0	2.2	1.1	--	--	--	--	--	--	--	--	--	--
9	2.1	1.0	2.0	1.0	--	--	--	--	--	--	--	--	--	--
10	3.1	1.4	2.2	1.1	--	--	--	--	--	--	--	--	--	--
11	2.1	1.0	2.1	1.1	--	--	--	--	--	--	--	--	--	--
12	2.2	1.1	2.1	1.1	--	--	--	--	--	--	--	--	--	--
13	2.8	1.3	2.1	1.1	--	--	--	--	--	--	--	--	--	--
14	2.1	1.0	2.1	1.1	2.2	1.2	2.1	1.1	--	--	--	--	--	--
15	2.6	1.2	2.0	1.0	2.0	1.0	2.0	1.0	--	--	--	--	--	--
16	2.3	1.1	2.0	1.0	2.1	1.1	2.1	1.1	--	--	--	--	--	--

*Including Background Concentrations

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

lower travel speeds on the roadway under the No-Build. Also, in most cases the critical wind angle for the Build Alternate does not provide any contribution from the existing roadway. Therefore, the traffic volumes contributing to the Build Alternate concentrations are lower than for the No-Build. In some cases, the No-Build concentrations are slightly lower than the Build due to the closer proximity of the receptors to the roadway under the Build Alternates.

The results of the 2015 1 hour analysis show the same relationships as described for the 1995 analysis. In general, the 2015 concentrations are slightly higher than the 1995 concentrations due to the higher traffic volume. The results of the 8 hour analysis show some concentrations for the No-Build higher than the Build and some lower as described above. The speed differential between the Alternates in the off-peak period is not as great as during the peak period. Therefore, the concentrations will be closer to equal.

The 8 hour average concentrations are consistently lower than the 1 hour concentrations due to the higher level speeds during the off peak period and the lower traffic volumes. These factors overrode the effect of the higher truck percentages during the off peak periods.

In conclusion, there are no violations of the S/NAAQS with any of the alternates analyzed for the 1 hour or the 8 hour periods for either analysis year, 1995 or 2015.

2. Construction Impacts

The construction phase of the proposed project has the potential of impacting the ambient air quality through such means

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as fugitive dust from grading operations and materials handling. The State Highway Administration has addressed this possibility by establishing Specifications for Materials, Highways, Bridges and Incidental Structures which specifies procedures to be followed by contractors involved in state work.

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

3. Conformity with Regional Air Quality Planning

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

4. Agency Coordination

Copies of the technical Air Quality Analysis are being circulated to the U.S. Environmental Protection Agency and the Maryland Air Management Administration for review and comment.

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F. Section 4(f) Evaluation

1. Introduction

Section 4(f) of the Department of Transportation Act, as amended by Section 18 of the Federal Aid Highway Act of 1968, states that utilizing land from a significant publicly-owned park, recreation area, wildlife refuge, or any significant historic site for a federally funded transportation project is permissible only if there is no feasible and prudent alternative and if all possible planning to minimize harm is included as part of the project.

2. Proposed Action

The relocation of Maryland Route 30 from north of Maryland Route 91 in Baltimore County to the vicinity of Charmil Drive in Carroll County (See Section III-Alternates Considered) would require the acquisition of property from four historic sites which are possibly eligible for the National Register of Historic Places. These sites are the Henry Fringer House (BA 1855) and the Baumann House (BA 912) in Baltimore County and the Elias Houck Residence/Leister Farm (CARR 596) and the Garrett Farm (CARR 615) in Carroll County.

3. Description of 4(f) Resource

Site 2, the Henry Fringer House (BA 1855) is a large, elegantly detailed variant of the center gable house form typically found in rural areas of Maryland. The house is two and one half stories, five bays wide by two bays deep and faces east. Northeast of the house is a stone springhouse in good condition. The Fringer House is located west of existing Maryland Route 30 and south of Fringer Road and encompasses roughly 3 acres.

Site 46, the Baumann House (BA 912) is significant as a

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substantial mid-nineteenth century farmhouse which as been continuously associated with agriculture since its establishment. This extensive and well-maintained farm complex includes a large frame barn, contemporary with the house. Other minor outbuildings contribute to the site's character. The Baumann House is located west of existing Maryland Route 30 and south of Bortner Road in Baltimore County and consists of 51 acres.

Site 4A, the Elias Houck Residence/Leister Farm (CARR 596) is significant as a distinctive example of a form commonly used in rural domestic vernacular architecture from the mid-nineteenth to early twentieth centuries in the eastern United States. The house is in good condition and its massive brick construction and pronounced verticality set it apart from others of its type. This site is located west of the Black and Decker Complex, about 2500 feet from existing Maryland Route 30 in Carroll County and consists of 165 acres.

Site 42, the Garrett Farm (CARR 615) is significant as a substantial farm complex of the late nineteenth century which has, evidently, remained in the hands of one family for over 100 years. This site exhibits a wealth of period architectural detail and is in an excellent state of preservation. It is located west of existing Maryland Route 30 and south of Cape Horn Road at the proposed project's northern terminous and consists of about 7.5 acres.

4. Impacts to Resources

Henry Fringer House

Southern tie-in option A requires the acquisition of .02 acres from the northern boundary of Site 2, the Henry Fringer House. The

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proposed taking is shown in Figure 12. The eastern boundary of this site is existing Maryland Route 30. The right-of-way line of the proposed bypass would be located approximately 180 feet from the house and existing Maryland Route 30 would be retained as an access road to the site, thus the present entrance/exit would not be relocated.

Air quality levels would not exceed state or National Ambient Air Quality Standards (S/NAAQS).

The ambient L_{eq} noise level at this site (same as NSA 2) is 68 decibels. Under the No-Build Alternate 56 decibels (dBA) is the projected noise level in the design year. Under Alternate 2, southern option A, noise levels would decrease to 58 dBA and under options B and C increase to 62 dBA. Neither ambient nor projected noise levels will exceed the FHWA noise abatement criteria of 67 L_{eq} .

The State Historic Preservation Officer (SHPO) has rendered a determination of no adverse effect.

Bauman House (NSA 3)

Southern option A would require the acquisition of 7 acres from Site 46, the Baumann House (See Figure 12). The site's eastern property boundary is existing Maryland Route 30 and the northern boundary is Bortner Road. Alternate 2, southern option A bisects this site but does not require the nearest building which is located approximately 440' east of the proposed right-of-way line.

Air quality levels would not exceed S/NAAQS.

The ambient L_{eq} noise level at this site is 56 dBA. Projections are 55 dBA under the No-Build Alternate, 55 dBA with option A and 60 dBA under southern options B and C. Neither ambient nor projected noise levels would exceed the FHWA noise abatement

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criteria.

The SHPO has rendered an adverse effect determination for this property due to the identified property taking.

Elias Houck/Leister Farm

Alternate 2, southern tie-in options A, B and C require approximately 13 acres from the eastern boundary of Site 4A, the Elias Houck/Leister Farm (See figure 12). The nearest building is located on a hill approximately 850' west of the proposed right-of-way line.

Neither the air quality or noise levels are expected to change significantly because of the proposed bypass. The SHPO has determined that the proposed project would have an adverse effect due to the property acquisition. (See letter of November 26, 1984 in section VII).

Garrett Farm (NSA 15)

Site 42, the Garrett farm would be impacted by the construction of Alternate 2 northern tie-in option A (See figure 12). Approximately 0.8 acres of land would be acquired from the historic boundaries as the result of widening the farm lane to accommodate through traffic on relocated Cape Horn Road. The right-of-way line of mainline Alternate 2, northern option A would be located 850 feet west of this site's nearest building. The southern boundary of this site is the farm lane.

Air quality levels at this site would not exceed S/NAAQS.

The ambient L_{eq} at this site is 60 dBA. Noise levels are projected to increase to 68 dBA under No-Build. Under alternate 2 northern tie-in A noise levels are projected to decrease to 56 dBA and under northern tie-in option B to 57 dBA. Neither ambient nor projected noise levels exceed the FHWA noise abatement criteria.

IV-29

Impacts to the Farm,
however, one residence would be displaced.

6. Mitigation

At site 2 the Fringer House, the grading slope may be increased to minimize the right-of-way impact. Alternate 2 would be located approximately 460' west of the Baumann House, site 46. A landscaping plan could be developed and coordinated with the SHPO to shield the house from the right-of-way.

IV-30

The State Historic Preservation Officer (SHPO) has rendered a preliminary determination of a no adverse effect conditioned on SHA providing landscape screening and providing that soil conditions are studied to determine the feasibility of reducing the right-of-way located southwest of the farm.

5. Avoidance Alternates (Figure 14)

The No-Build Alternate and Alternate 2, southern tie-in options B and C avoid the taking of property from Site 2. An eastern shift of Alternate 2, tie-in option A would avoid Site 2; however, one residence would be acquired (See figure 14). A western alignment shift (figure 14) to avoid Site 46 would require an additional crossing of Aspen Run in Carroll County and the acquisition of approximately 8.3 acres of prime farmland which is used for agricultural purposes.

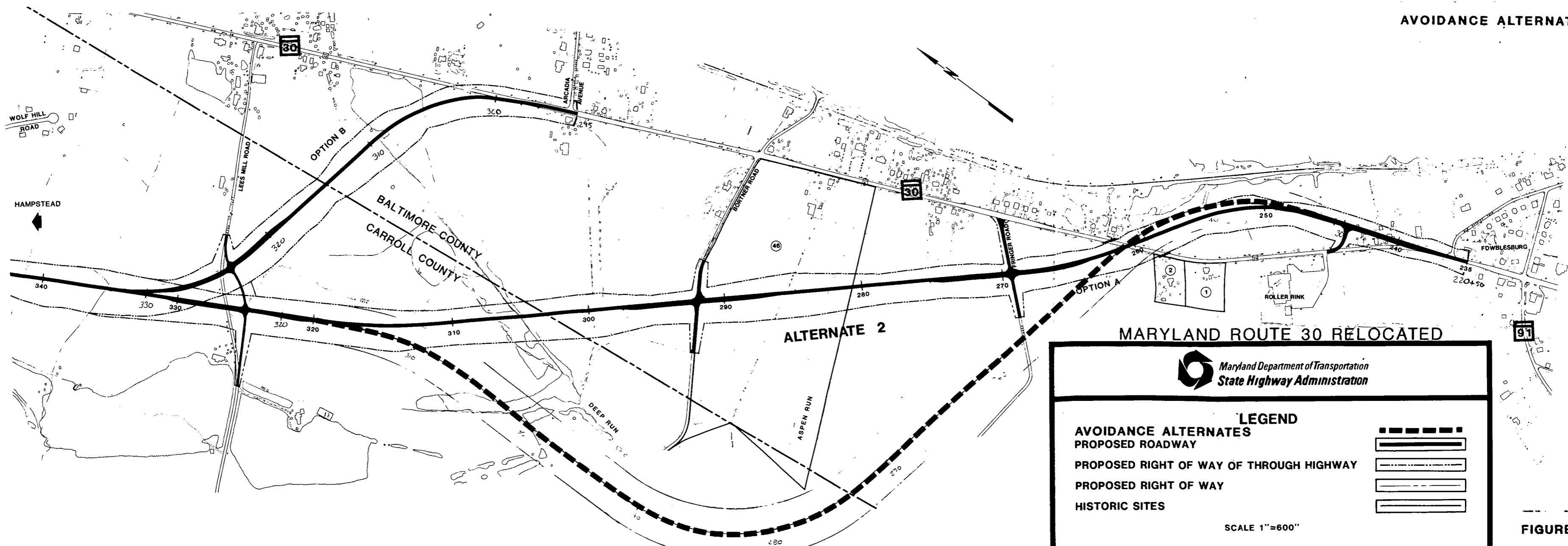
Site 4A, the Elias Houck Residence/Leister Farm, could be avoided by shifting Alternate 2, options A, B and C to the east (Station 360+ to 420+). However, the avoidance alignment would bisect Black and Decker pond and require the removal of shrubbery located west of the Black and Decker Distribution Center.

The No-Build Alternate and Alternate 2, northern tie-in option B avoid the acquisition of property from site 42, the Garrett Farm. Shifting the alignment of relocated Cape Horn Road under tie-in option A in a southerly direction would avoid impacts to the Farm, however, one residence would be displaced.

6. Mitigation

At site 2 the Fringer House, the grading slope may be increased to minimize the right-of-way impact. Alternate 2 would be located approximately 460' west of the Baumann House, site 46. A landscaping plan could be developed and coordinated with the SHPO to shield the house from the right-of-way.

AVOIDANCE ALTERNATES



Maryland Department of Transportation
State Highway Administration

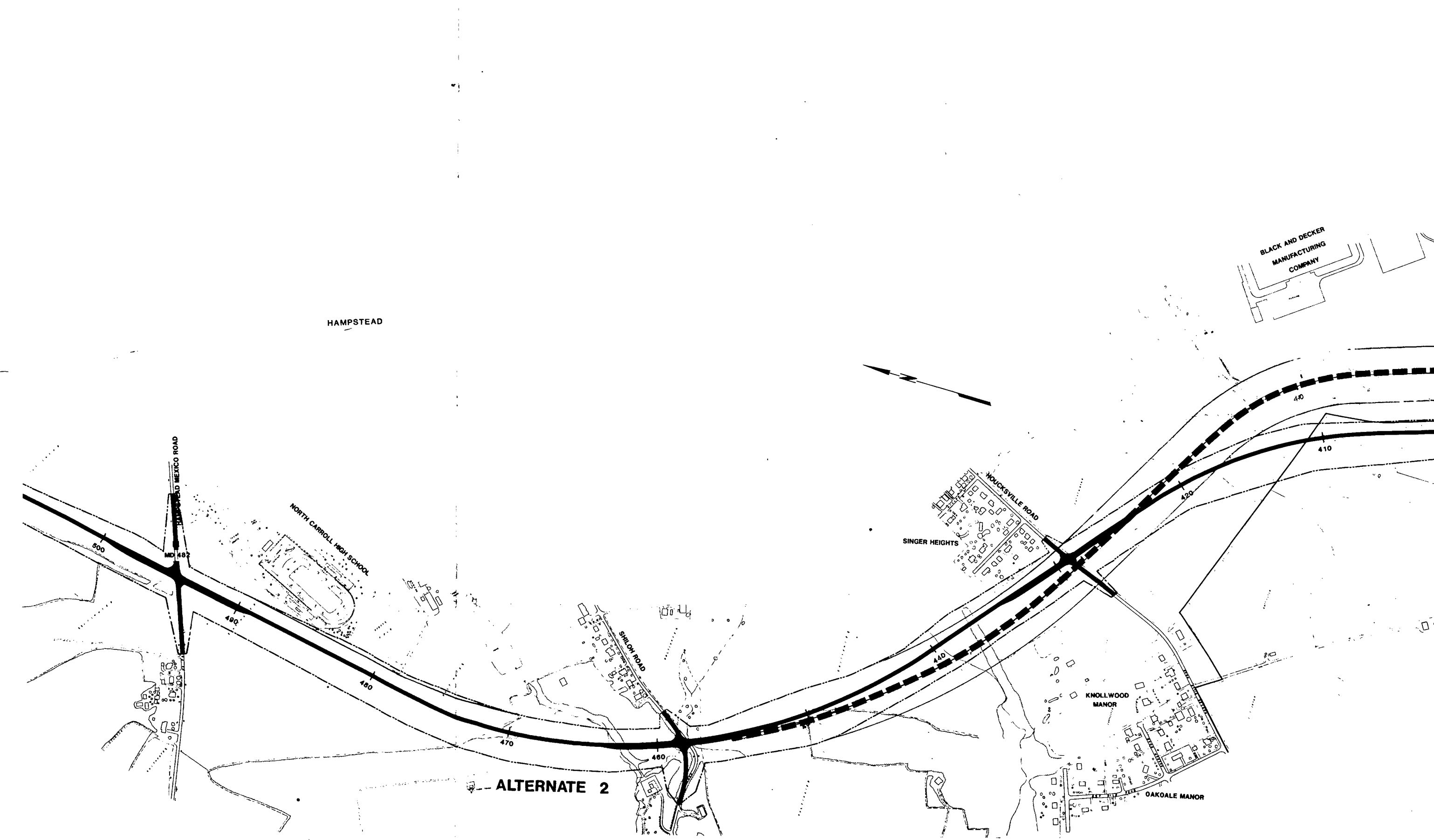
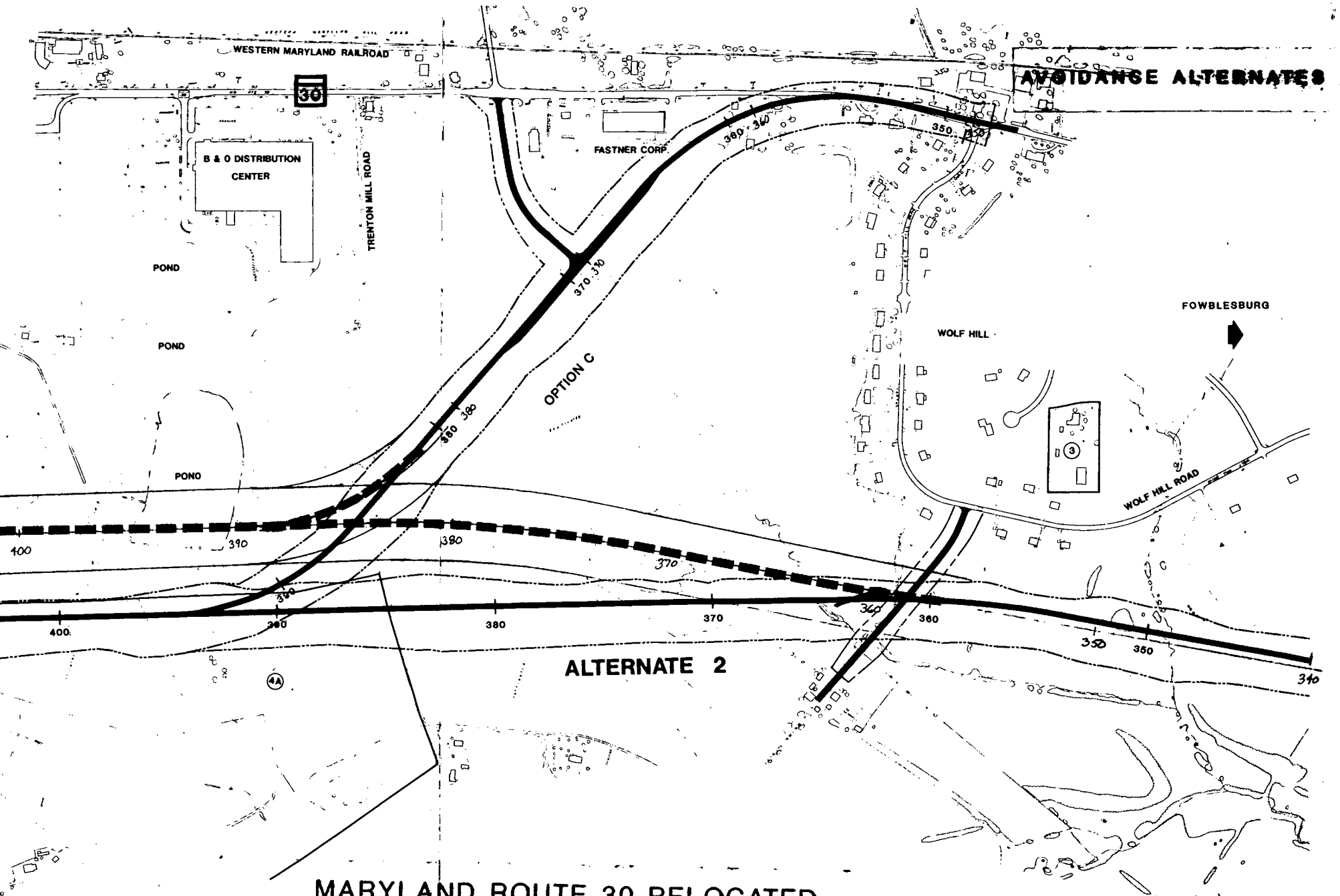
MARYLAND ROUTE 30 RELOCATED

LEGEND

AVOIDANCE ALTERNATES	
PROPOSED ROADWAY	
PROPOSED RIGHT OF WAY OF THROUGH HIGHWAY	
PROPOSED RIGHT OF WAY	
HISTORIC SITES	

SCALE 1"=600"

FIGURE 14a



MARYLAND ROUTE 30 RELOCATED

Maryland Department of Transportation
State Highway Administration

LEGEND

AVOIDANCE ALTERNATES

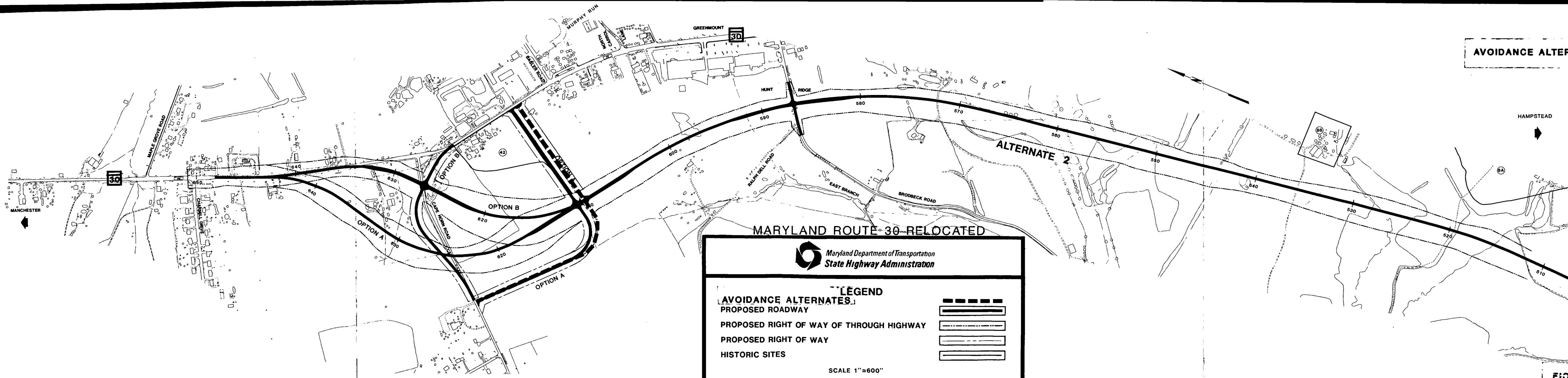
PROPOSED ROADWAY

PROPOSED RIGHT OF WAY OF THROUGH HIGHWAY

PROPOSED RIGHT OF WAY

HISTORIC SITES

SCALE 1"=600'



AVOIDANCE ALTERNATES

FIGURE 14c

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Structures associated with site 4A, the Elias Houck/Leister Farm are located approximately 800' from Alternate 2's centerline and approximately 650' from the right-of-way line. Landscaping and other mitigation will be developed in coordination with the SHPO to mitigate impacts.

At Site 42, the Garrett Farm, vegetation and woods located north of the site will be retained to shield the roadway from view as much as possible. Additionally, landscaping could be provided on both the southern and western boundaries to minimize visual effects.

7. Coordination

Coordination has been initiated with the State Historic Preservation Officer to identify historic sites and for a determination of potential effects. Coordination will continue after an alternate has been selected to mitigate and minimize impacts as much as possible.

Copies of this document will be circulated to the Department of Interior (DOI) and other appropriate agencies.

V. COMMENTS AND COORDINATION

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V. COMMENTS AND COORDINATION

Coordination of this project with the public consisted of the Alternates Public Meeting held at the North Carroll Middle School on June 6, 1984. Citizens expressed concern about the length of the project. Some citizens were concerned about the amount of agricultural land being taken.

Coordination of this project with appropriate resource agencies was begun on July 28, 1983 at the Inter-Agency Quarterly Review held by the State Highway Administration. Representatives from the Maryland Department of Natural Resources, U.S. Fish and Wildlife Services and the Corps of Engineers attended this meeting.

VI. APPENDICES

Attachment for Environmental
Impact Documents
Revised February 18, 1981
Bureau of Relocation Assistance

"SUMMARY OF THE RELOCATION ASSISTANCE PROGRAM OF THE
STATE HIGHWAY ADMINISTRATION OF MARYLAND"

All State Highway Administration projects must comply with the provisions of the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970" (Public Law 91-646) and/or the Annotated Code of Maryland, Real Property, Title 12, Subtitle 2, Sections 12-201 thru 12-212. The Maryland Department of Transportation, State Highway Administration, Bureau of Relocation Assistance, administers the Relocation Assistance Program in the State of Maryland.

The provisions of the Federal and State Law require the State Highway Administration to provide payments and services to persons displaced by a public project. The payments that are provided include replacement housing payments and/or moving costs. The maximum limits of the replacement housing payments are \$15,000 for owner-occupants and \$4,000 for tenant-occupants. In addition, but within the above limits, certain payments may be made for increased mortgage interest costs and/or incidental expenses. In order to receive these payments, the displaced person must occupy decent, safe and sanitary replacement housing. In addition to the replacement housing payments described above, there are also moving cost payments to persons, businesses, farms and non-profit organizations. Actual moving costs for residences include actual moving costs up to 50 miles or a schedule moving cost payment, including a dislocation allowance, up to \$500.

The moving cost payments to businesses are broken down into several categories, which include actual moving expenses and payments "in lieu of" actual moving expenses. The owner of a displaced business is entitled to receive a payment for actual reasonable moving and related expenses in moving his business, or personal property; actual direct losses of tangible personal property; and actual reasonable expenses for searching for a replacement site.

The actual reasonable moving expenses may be paid for a move by a commercial mover or for a self-move. Generally, payments for the actual reasonable moving expenses are limited

to a 50 mile radius. In both cases, the expenses must be supported by receipted bills. An inventory of the items to be moved must be prepared, and estimates of the cost may be obtained. The owner may be paid an amount equal to the low bid or estimate. In some circumstances, the State may negotiate an amount not to exceed the lower of the two bids. The allowable expenses of a self-move may include amounts paid for equipment hired, the cost of using the business's vehicles or equipment, wages paid to persons who physically participate in the move, and the cost of the actual supervision of the move.

When personal property of a displaced business is of low value and high bulk, and the estimated cost of moving would be disproportionate in relation to the value, the State may negotiate for an amount not to exceed the difference between the cost of replacement and the amount that could be realized from the sale of the personal property.

In addition to the actual moving expenses mentioned above, the displaced business is entitled to receive a payment for the actual direct losses of tangible personal property that the business is entitled to relocate but elects not to move. These payments may only be made after an effort by the owner to sell the personal property involved. The costs of the sale are also reimbursable moving expenses. If the business is to be reestablished, and personal property is not moved but is replaced at the new location, the payment would be the lesser of the replacement costs minus the net proceeds of the sale or the estimated cost of moving the item. If the business is being discontinued or the item is not to be replaced in the reestablished business, the payment will be the lesser of the difference between the value of the item for continued use in place and the net proceeds of the sale or the estimated cost of moving the item.

If no offer is received for the personal property and the property is abandoned, the owner is entitled to receive the lesser of the value for continued use of the item in place or the estimated cost of moving the item and the reasonable expenses of the sale. When personal property is abandoned without an effort by the owner to dispose of the property by sale, the owner will not be entitled to moving expenses, or losses for the item involved.

The owner of a displaced business may be reimbursed for the actual reasonable expenses in searching for a replacement business up to \$500. All expenses must be supported by receipted bills. Time spent in the actual search may be reimbursed on an hourly basis, but such rate may not exceed \$10 per hour.

In lieu of the payments described above, the State may determine that the owner of a displaced business is eligible to receive a payment equal to the average annual net earnings of the business. Such payment shall not be less than \$2,500 nor more than \$10,000. In order to be entitled to this payment, the State must determine that the business cannot be relocated without a substantial loss of its existing patronage, the business is not part of a commercial enterprise having at least one other establishment in the same or similar business that is not being acquired, and the business contributes materially to the income of a displaced owner.

Considerations in the State's determination of loss of existing patronage are the type of business conducted by the displaced business and the nature of the clientele. The relative importance of the present and proposed locations to the displaced business, and the availability of suitable replacement sites are also factors.

In order to determine the amount of the "in lieu of" moving expenses payment, the average annual net earnings of the business is considered to be one-half of the net earnings before taxes, during the two taxable years immediately preceding the taxable year in which the business is relocated. If the two taxable years are not representative, the State, with approval of the Federal Highway Administration, may use another two-year period that would be more representative. Average annual net earnings include any compensation paid by the business to the owner, his spouse, or his dependents during the period. Should a business be in operation less than two years, but for twelve consecutive months during the two taxable years prior to the taxable year in which it is required to relocate, the owner of the business is eligible to receive the "in lieu of" payment. In all cases, the owner of the business must provide information to support its net earnings, such as income tax returns, for the tax years in question.

For displaced farms and non-profit organizations, actual reasonable moving costs generally up to 50 miles, actual direct losses of tangible personal property, and searching costs are paid. The "in lieu of" actual moving cost payments provide that the State may determine that a displaced farm may be paid a minimum of \$2,500 to a maximum of \$10,000 based upon the net income of the farm, provided that the farm has been discontinued or relocated. In some cases, payments "in lieu of" actual moving costs may be made to farm operations that are affected by a partial acquisition. A non-profit organization is eligible to receive "in lieu of" actual moving cost payments, in the amount of \$2,500.

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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.

LETTERS

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Maryland Historical Trust

January 2, 1985

Ms. Cynthia D. Simpson
Environmental Management
P.O. Box 717
707 N. Calvert Street
Baltimore, Maryland 21203-0717

Re: Contract No. CL 416-102-770
P.D.M.S. No. 062001
Maryland Route 30 Relocated

Dear Ms. Simpson:

Based on your recent phone conversation with Ms. Kim Kimlin of our staff, we believe that the northern tie-in Option B will have no adverse effect provided that the following conditions are met:

- 1). based on studies of the soil conditions, SHA will make every effort to reduce the right-of-way southwest of the Garrett Farm. The results of the analysis will be coordinated with the SHPO;
- 2). landscaping is provided to reduce the visual impact of the highway and Cape Horn Road Relocated. The landscaping plans will need to be reviewed by and receive concurrence from the SHPO.

For this, and all determinations of no adverse effect already made for the Route 30 project, you must request the comments of the Advisory Council. Further coordination with our office and the Council will also be necessary for the determinations of adverse effect.

Please call Kim Kimlin at 269-2438 if you have any questions.

Sincerely,

George J. Andreve
Environmental Review Administrator

GJA/KEK/bjs

- cc: Mrs. Glenn Michel
- Mrs. Edwin Gramkow
- Mr. Ron Anzalone
- Ms. Rita Suffness



Maryland Historical Trust

December 26, 1984

Ms. Cynthia D. Simpson
Environmental Management
PO Box 717
707 N. Calvert St.
Baltimore, MD 21203-0717

RE: Contract No. CL 416-102-770
E.D.M.S. No. 062001
Maryland Route 30 Relocated

Dear Ms. Simpson:

We have received your letter of December 19, 1984 regarding the above-referenced project.

Thank you for providing us with a section drawing showing the highway profile in the vicinity of the Fringer House. We believe the road as shown will have no adverse effect.

Your statements regarding the reduction of right-of-way near the Garrett Farm are not clear. You state that the soil conditions are unknown and imply that knowledge of the soil conditions is necessary in order to determine if a r.o.w. reduction is possible or not. But you conclude that the reduction in r.o.w. is not possible. You have thus precluded the possibility that the soil conditions will permit a reduction in r.o.w. It appears to us that the soil conditions need to be studied before the issue can be resolved.

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

Sincerely,

George J. Andreve
Environmental Review Administrator

GJA/KEK/hac

cc: Mrs. Glenn Michel
Mrs. Edwin Gramkow
Mrs. Arnold Joseph
Ms. Rita Suffness

1985 JAN 2 AM 10 07

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
DIVISION OF ECOLOGICAL SERVICES
1825B VIRGINIA STREET
ANNAPOLIS, MARYLAND 21401

May 9, 1984

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

Dear Mr. Ege:

This responds to your letters of May 1 and May 2, 1984, request for information on the presence of Federally listed endangered or threatened species within the impact area of projects F-866-101-772, Frederick County and CL 416-102-770, Carroll and Baltimore Counties, Maryland. We are providing the following comments in accordance with the Endangered Species Act as amended by P.L. 97-304, 1982.

Except for occasional transient individuals, no Federally listed or proposed endangered or threatened species are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 Consultation is required with the Fish and Wildlife Service (FWS). Should project plans change, or if additional information on the distribution of listed or proposed species becomes available, this determination may be reconsidered.

The following "Candidate" species (those placed under review in the Federal Register to determine suitability for listing) may be present in the project counties:

<u>Species</u>	<u>Counties of Occurrence</u>
bog turtle (<u>Clemmys muhlenbergi</u>)	Baltimore, Carroll, Frederick
pygmy shrew (<u>Microsorex hoyi winnemana</u>)	Baltimore
Darlington's spurge (<u>Euphorbia purpurea</u>)	Baltimore, Frederick
Parker's pipewort (<u>Eriocaulon parkeri</u>)	Baltimore

Candidate species are not legally protected under the Endangered Species Act and biological assessment and consultation requirements pursuant to that legislation do not apply to them. They are included here for the purpose of notifying you of possible future proposals and listings in advance, for consideration in your NEPA review process, and to encourage efforts to avoid adverse impacts to them. Additional information on these candidate species may be obtained by contacting the Maryland Natural Heritage Program Tawes State Office Building, 580 Taylor Avenue, Annapolis, MD 21401, telephone 301/269-3656.

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 Andy Moser of our Endangered Species staff at (301) 269-6324.

Sincerely yours,



/s/ Glenn Kinser
Supervisor
Annapolis Field Office

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DEPARTMENT OF NATURAL RESOURCES
Maryland Forest, Park & Wildlife Service

TORREY C. BROWN, M.D.
SECRETARY

TAWES OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

DONALD E. MacLAUCHLAN
DIRECTOR

May 8, 1984

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

Dear Mr. Ege:

There are no known populations of listed threatened or endangered species within the project limits for MD Rt. 30 relocated from south of Manchester to south of Hampstead, as described in your letter to me of May 1, 1984.

Sincerely,

Gary J. Taylor
Nongame & Endangered
Species Program Manager

GJT:ba
Enc. Carlo Brunori

Telephone (301) 827-8612

TTY FOR DEAF: STATEWIDE 1-800-492-5062; BALTIMORE 269-2609

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TORREY C. BROWN, M.D.
SECRETARY

JOHN R. GRIFFIN
DEPUTY SECRETARY

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

FRED L. ESKEW
ASSISTANT SECRETARY
FOR CAPITAL PROGRAMS

May 4, 1984

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

Subject: Maryland Route 30 Relocated, from South of Hampstead to North of
Hampstead Contract No. CL 416-102-770

Dear Mr. Schneider:

Review of information contained in the Heritage Program Data Base indicates that no rare species, unusual community, or other significant natural feature has been reported from the study area for this project as delineated in your letter of May 1, 1984. If I can be of further assistance, please do not hesitate to contact me.

Sincerely,

Arnold Norden

Arnold Norden
Maryland Natural Heritage Program

AN:lw

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Maryland Historical Trust

November 26, 1984

Ms. Cynthia D. Simpson
Environmental Management
State Highway Administration
P. O. Box 717, 707 North Calvert Street
Baltimore, Maryland 21203-0717

Re: Maryland Route 30 Relocated
Contract No. CL 416-102-770

Dear Ms. Simpson:

Thank you for your recent letter regarding the proposed Hampstead Bypass.

We concur with the expanded boundaries for the Baumann Farm and the Houck/Leister Farm as described in your most recent letter of November 19, 1984. We also concur with your proposed boundaries for the six other sites as described in your October 17, 1984 letter and concur that all eight sites may be eligible for the National Register.

Our environmental review staff has visited each site and our preliminary comments regarding impact are as follows:

- #1 J. Wolfrom House/Fringer Tavern - no adverse effect;
- #2 Fringer House - more information will be needed to make a determination of effect in light of the recent change in R.O.W. which requires a .02 acre taking from the historic site. Because this option was developed specifically to avoid the Fringer properties, we are concerned about the proposed taking. Why was this change necessary? How will the Bypass and existing MD Rt. 30 cross?, overpass?, at-grade intersection? Please provide us with a section drawing of the proposed and existing roads at the point shown on the enclosed map;
- #46 Baumann Farm - adverse effect (taking);
- #3 Deal House - no effect;
- #4A Houck/Leister Farm - adverse effect (taking);
- #8B Bank House - no adverse effect;
- #8A Farm (CARR 603) - no adverse effect;

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Ms. Cynthia D. Simpson
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#42 Garrett Farm - Option A is our least preferred alternate because of the proposed relocation of Cape Horn Road to the southeast side of the farm. This option involves taking a small strip of land from the farm and would have an adverse effect. It may be possible to mitigate this adverse effect by providing adequate landscaping. We prefer Option B since it proposes relocating Cape Horn Road through the woods located north of the farm and avoids taking land from the historic site. We have two questions regarding Option B:

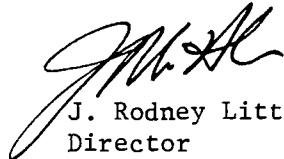
1. Is it possible to reduce the Bypass right-of-way (without moving the proposed road alignment) that is located southwest of the farm (see enclosed map)?
2. Will the woods that are outlined in blue on the enclosed map be retained?

The Stansbury Farm, located on the northwest corner of Cape Horn Road and MD 30, is not eligible for the Register, but is an inventory-level site. Although your office is not required to consider this site, it will undoubtedly be impacted by either option. We believe the impact of Option B would be less severe than Option A and of great benefit to the property owner. If Option B is selected, is there any possibility that the curve in relocated Cape Horn Road could be flattened southward and thus, reduce the impact on this inventory site?

Finally, we concur with your opinion that the Elmo Apartment House in Fowblesburg, Maryland does not satisfy the National Register criteria.

We look forward to hearing from you soon regarding our concerns about the Fringer, Garrett and Stansbury properties. If you have any questions, please call Kim Kimlin or George Andreve at 269-2438.

Sincerely,



J. Rodney Little
Director
State Historic Preservation Officer

Enclosures

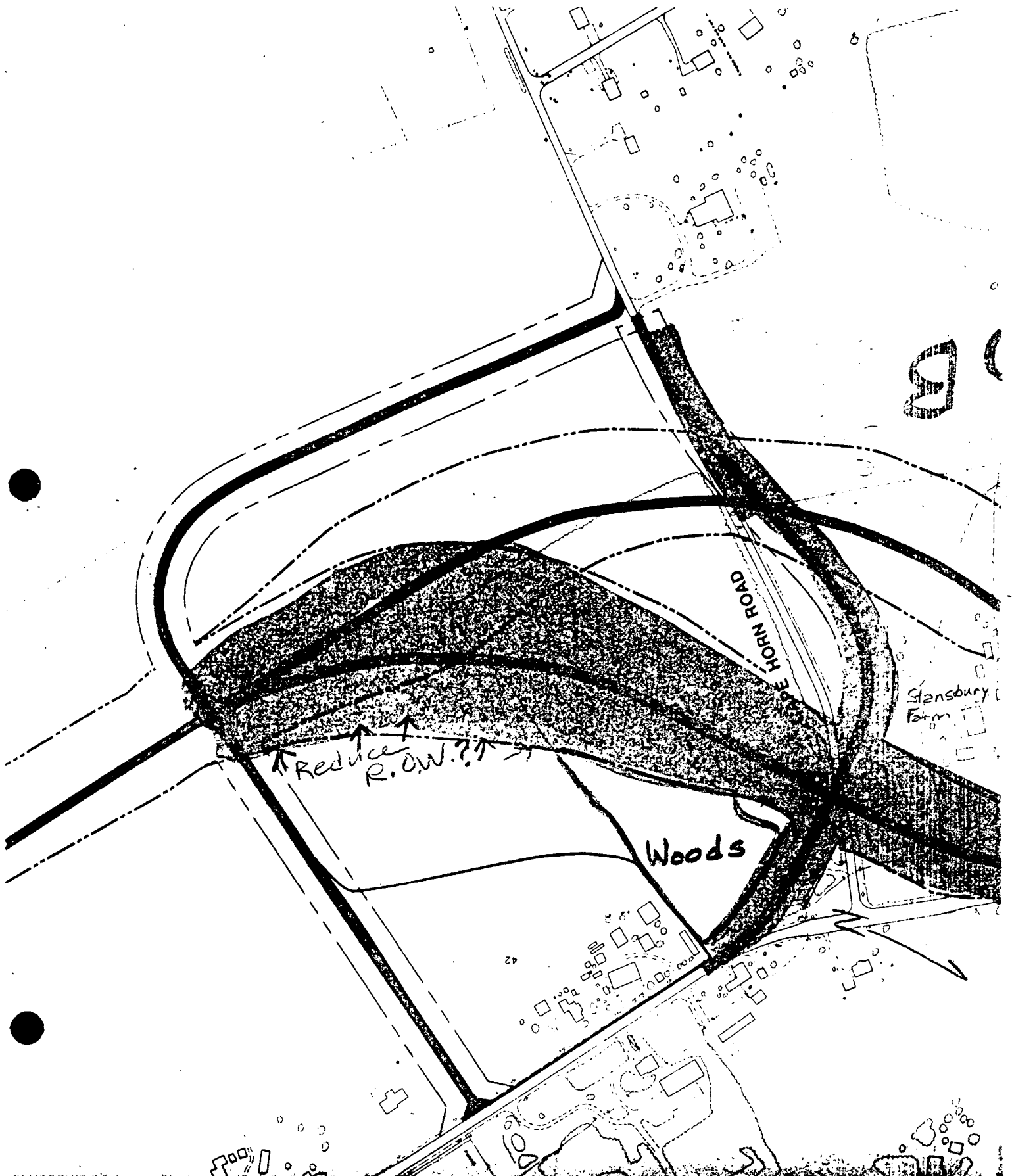
JRL/KEK/hec

- cc: Mrs. Glenn Michel
Mrs. Edwin Gramkow
Mrs. Arnold Joseph
Mr. Charles L. Wagandt
Mr. Paul McKean
Ms. Rita Suffness

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Hampstead Bypass



MD 30 119
Hampstead Bypass

