

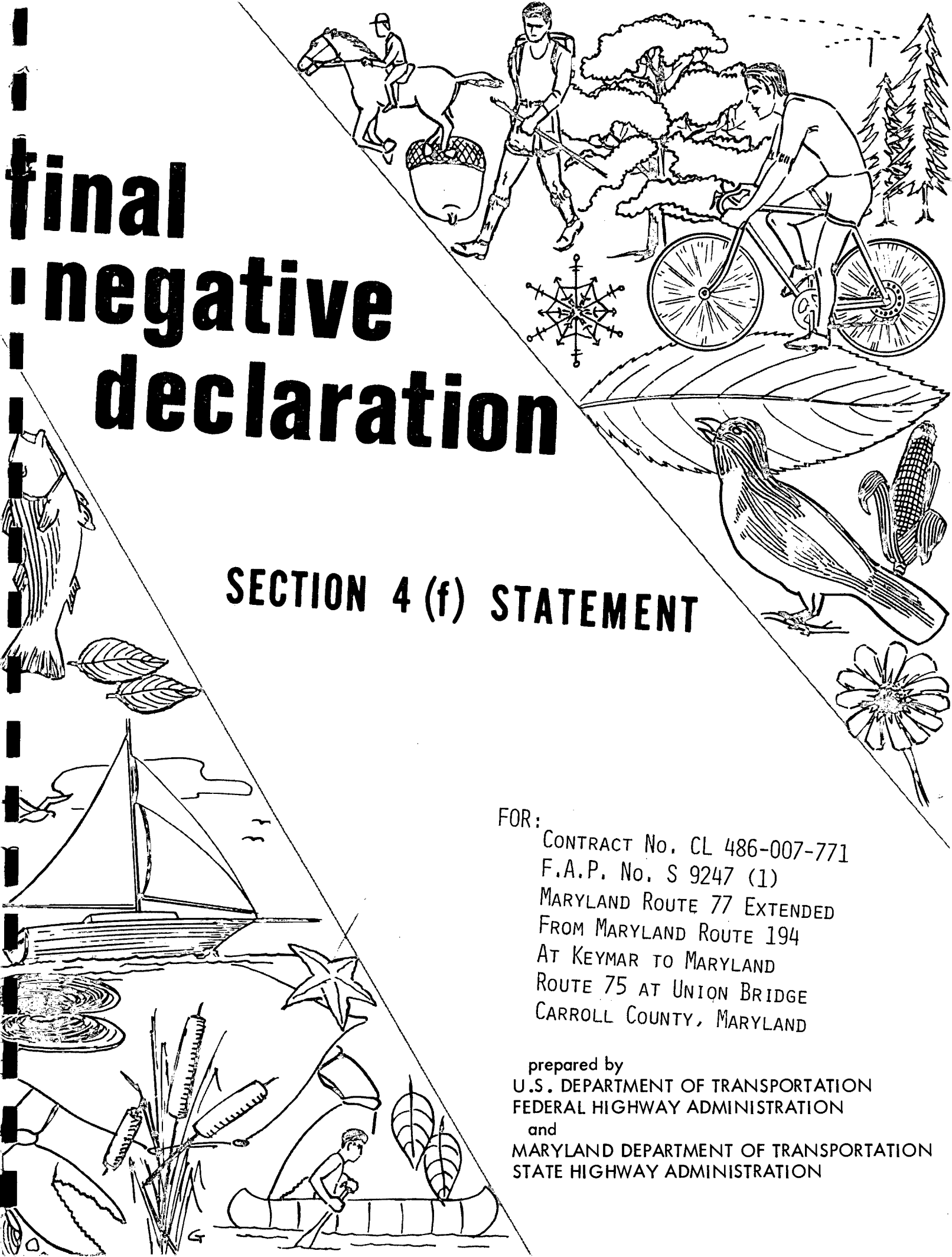
final negative declaration

SECTION 4 (f) STATEMENT

FOR:

CONTRACT No. CL 486-007-771
F.A.P. No. S 9247 (1)
MARYLAND ROUTE 77 EXTENDED
FROM MARYLAND ROUTE 194
AT KEYMAR TO MARYLAND
ROUTE 75 AT UNION BRIDGE
CARROLL COUNTY, MARYLAND

prepared by
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
and
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION



REPORT NUMBER: FHWA-MD-NEG-78-04-F

REGION III

MARYLAND ROUTE 77
FROM MARYLAND ROUTE 194 AT KEYMAR TO
MARYLAND ROUTE 75 AT UNION BRIDGE

ADMINISTRATIVE ACTION

FINAL
NEGATIVE DECLARATION

4(f) STATEMENT

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

AND

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

Submitted pursuant to 42 U.S.C. 4332 (2) (C), 23 U.S.C. 128 (a)
49 U.S.C. 1653 (f), 16 U.S.C. 470 (f)

M.S. Caltrider
State Highway Administrator

4/18/79

Date

by:

Hal Kassoff

Hal Kassoff, Director
Office of Planning and
Preliminary Engineering

8-20-79

Date

by:

Emil Elinsky
FOR

Emil Elinsky
Division Administrator
Federal Highway Administration

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STRATION OF MARYLAND

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SUMMARY

- 1. Federal Highway Administration
 Administrative Action Negative Declaration
 () Draft (x) Final
 (x) Section 4(f) Statement

- 2. Individuals who can be contacted for additional information:

Mr. Eugene T. Camponeschi
 Maryland State Highway Administration
 300 West Preston Street
 Baltimore, Maryland 21201
 Phone: (301) 383-4327
 Office Hours: 8:15 a.m. to 4:15 p.m.

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

- 3. Brief Description of the Proposed Action

The proposed action consists of the extension of Maryland Route 77 in Carroll County, from Maryland Route 194 at Keymar to Maryland Route 75 at Union Bridge. As proposed, this extension involves construction of a two-lane rural highway with 12-foot travel lanes, 10-foot shoulders, safety grading and drainage facilities within a minimum right-of-way width of 100 feet. The distance between project termini is approximately 4.0 miles.

4. Major Alternatives Considered

In the Draft Negative Declaration two alternatives were discussed. These were a build alternate (Alternate B-D) and the no-build alternate.

As a result of the engineering and environmental analysis and public input, Alternate B-D has been selected.

5. Summary of Environmental Impacts

In general, the environmental impacts of the proposed action (selected Alternate B-D) are as follows:

- Fifty-six acres of land will be acquired for right-of-way, 48 acres of which is presently in agricultural use, 7 acres for residential use and 1 acre for commercial use.
- One residence will be acquired, however adequate housing is available in the area.
- Right-of-way acquisition and construction will disrupt five farm operations.
- Property for right-of-way will be required from two historic sites.
- The project will involve crossing 5 tributaries of Little Pipe Creek. Any potential impact will be minimal with the implementation of standard erosion and sedimentation procedures.
- Three noise sensitive areas will experience noise levels in excess of Federal Design Noise Levels.
- The project will improve access between Keymar and Union Bridge and reduce heavy truck traffic on existing roads.

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I. LOCATION AND DESCRIPTION OF PROJECT

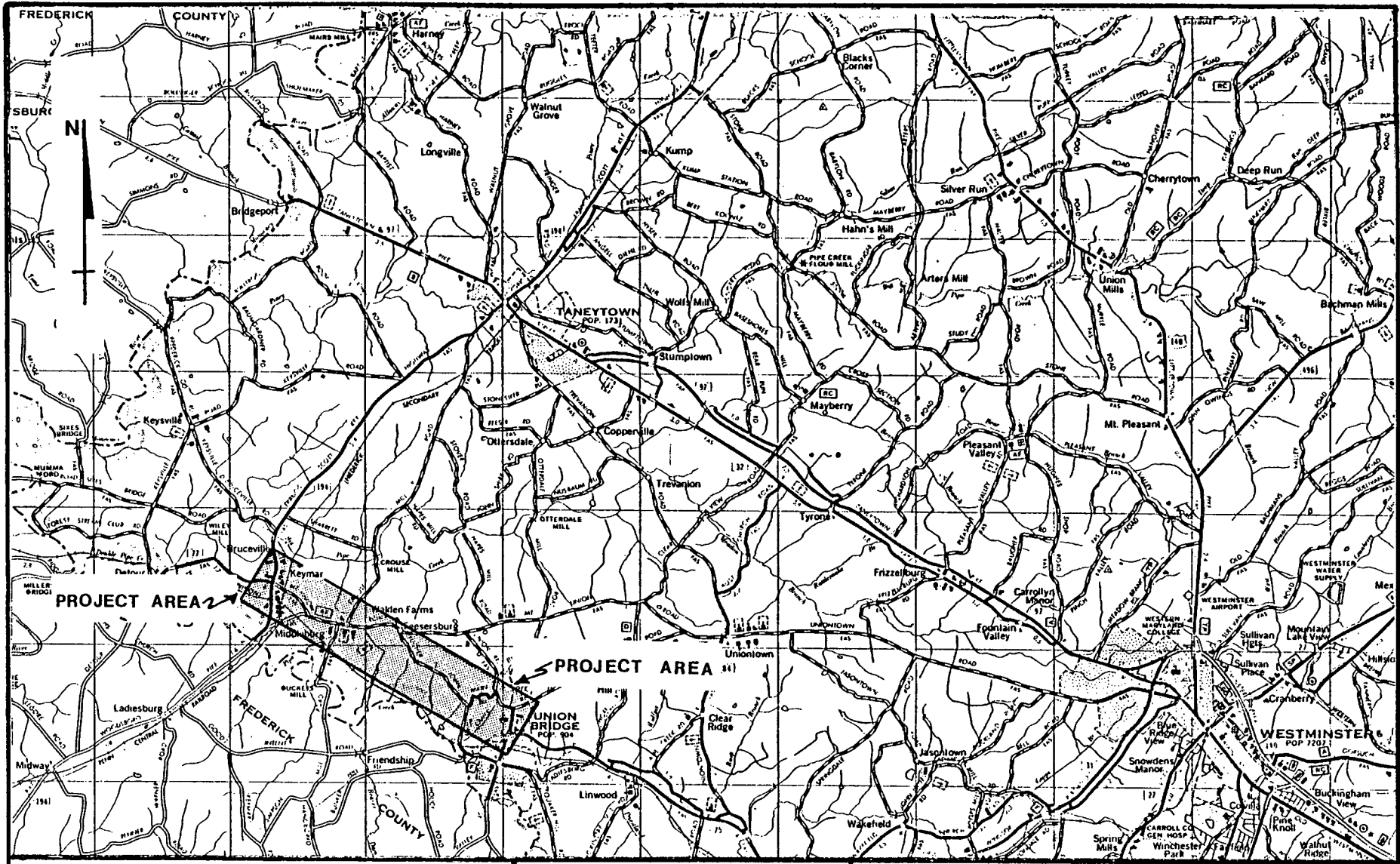
1. LOCATION OF PROJECT

The proposed action under consideration is the extension of Maryland Route 77 in Carroll County, from Maryland Route 194 at Keymar to Maryland Route 75 at Union Bridge. The communities of Keymar and Union Bridge as well as the project area which runs between them, are located near the Carroll County-Frederick County Line, approximately 12 miles west of Westminster and 5 miles south of Taneytown. Exhibit 1 on the following page is a map of this area. Exhibit 2 on page 3 is a project area map denoting the geographic limits of this study.

The following sections provide a brief description and overview of pertinent natural and community features. A more detailed treatment of these topics is found in Chapter IV.

1.1 General Description of Surrounding Terrain and Natural Features

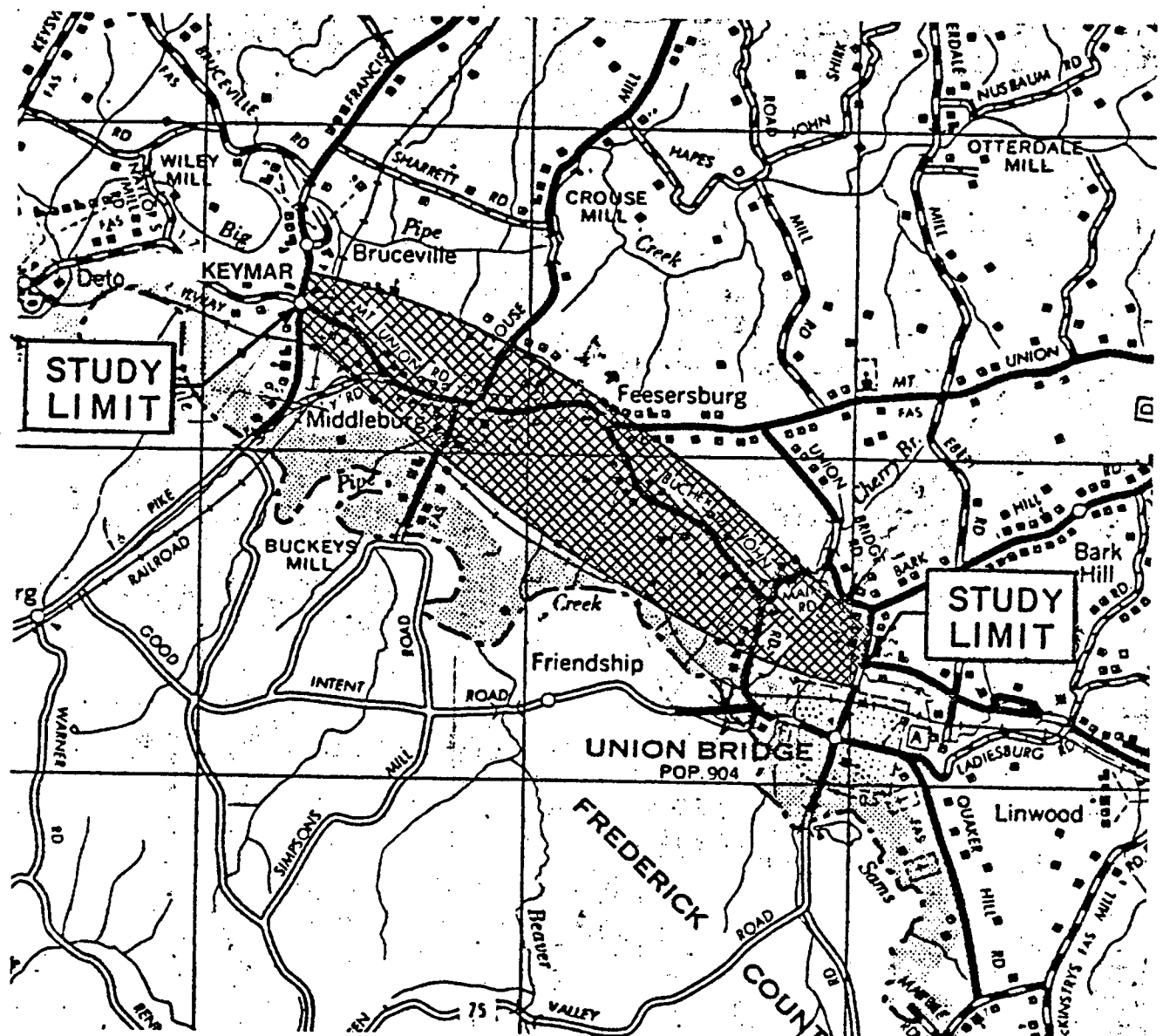
The Keymar-Union Bridge portion of Carroll County is very typical of rural farm areas throughout the region. The terrain is gently rolling with elevations in the project area ranging from 388 feet to 503 feet above mean sea level. Slopes for the most part fall within the 0-8 percent range with only 10 percent of the area having slopes of 8-15 percent or more.



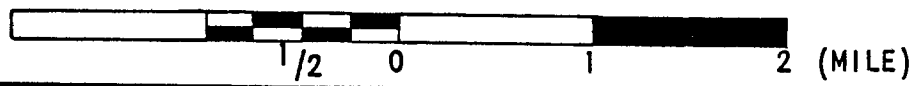
LOCATION MAP



22



PROJECT VICINITY MAP



**Maryland Department
of Transportation**

EXHIBIT 2
 MD. ROUTE 77 EXTENDED
 FROM MD. ROUTE 194 AT KEYMAR
 TO MD. ROUTE 75 AT UNION BRIDGE

Two soil associations are present. The Penn-Klinesville-Abbottstown association covers most of the area except near Union Bridge where the Mt. Airy-Glenelg association is dominant. These soils are underlain by sandstone-shales of the New Oxford formation and the carbonate rocks of the Wakefield Marble formation. An inactive geologic fault line crosses the project area in a northeast to southwest direction in the vicinity of the Penn Central (Conrail) tracks.

Over half (57 percent) of the project area is classified as prime agricultural land according to the Soil Conservation Service. Not surprisingly, most of the land is in active agricultural use either in cropping or in dairying operations. Vegetation consists principally of corn and wheat crops, hay fields and pastures. Most of the area's original forest cover has been removed, the remaining wooded areas being found along stream beds or separating fields.

This type of animal habitat supports a variety of small wildlife species including some game birds. However, there are no known endangered species present.

Surface water bodies are limited to 12 small tributaries of the Little Pipe Creek which runs in a north to south direction. Eleven of the 12 streams are intermittent in flow and serve to drain surrounding fields. The twelfth stream is Cherry Branch which flows year round and is a water supply for approximately 12 homes north of Union Bridge.

The project area is located in the Metropolitan Baltimore Intrastate Air Quality Control Region which has a priority

classification of I for particulate matter, sulfur oxides, nitrogen dioxide, carbon monoxide, and photochemical oxidants. While there is no existing air quality data for this area, its rural nature, low traffic volumes, and monitoring in similar areas suggests that present air quality is well within Federal Ambient Air Quality Standards.

1.2 General Description of Surrounding Neighborhoods

As noted previously, the Keymar-Union Bridge area is rural in nature with the bulk of the land in active agricultural use. Development, except for scattered farmhouses and out buildings, is limited to low density residential clusters located adjacent to Middleburg Road and Bucher John Road at unincorporated places such as Middleburg and Feesersburg. No residential subdivision activity is occurring, or has occurred. Small scale retail commercial development does exist, but is located primarily at Keymar and Union Bridge as are most area employment opportunities.

According to the 1970 Census, Keymar, Middleburg, and Feesersburg each had a population of less than 300 while Union Bridge had a population of 904. Growth in election districts which include the study area for the 1960 to 1970 period was 9.3 percent compared to an overall county growth rate of 30.7 percent. Since 1970, little additional growth has occurred and a trend toward out-migration has been on the increase.

Community facilities and services, both public and quasi-public, are limited. Elementary and high school facilities are located in Union Bridge, the area middle school is in Taneytown.

Police protection is provided by the State Police at Westminster and fire protection is available from Union Bridge, New Windsor and Taneytown under cooperative agreements. No public sewer or water service is available outside of Union Bridge.

Twenty-seven sites within the project area have been identified as having historic significance. The Maryland Historical Trust preliminarily indicated that 20 of these sites were possibly eligible for inclusion on the National Register of Historic Places, either individually or as comprising one or more historic districts. One of these possible districts would include 12 or more structures located in Middleburg. Build Alternate B-D would require right-of-way from 2 of the 27 sites. The State Historic Preservation Officer has determined that one of the two sites does not meet the eligibility criteria for the Register.

An archaeological reconnaissance survey of the project area indicated the presence of scattered prehistoric activities. However, none of the sites studied were deemed significant and further archaeological research is not recommended.

2. DESCRIPTION OF PROJECT

2.1 Type of Project

The project under study is the extension of Maryland Route 77 from its intersection with Maryland Route 194 in Keymar eastward to an intersection with Maryland Route 75 in Union Bridge. The distance between project termini is approximately 4.0 miles. As proposed, this extension involves construction of a two-lane rural highway with 12-foot travel lanes, 10-foot shoulders, safety grading and drainage facilities within a minimum right-of-way

width of 100 feet. The typical section as described is included here as Exhibit 4 on the following page. Access to this roadway would be uncontrolled.

The selected alternate has a design speed of 60 m.p.h., with the exception of the first 1,400 feet, which is designed for 40 m.p.h. This is the result of a large grade differential between existing Maryland Route 194 at Keymar and the grade of the existing railroad at the proposed grade crossing with the Penn Central Railroad tracks. A maximum 6 percent grade was required and the longest vertical curve obtainable resulted in a design speed of 40 m.p.h.

The construction of a grade separation structure was investigated at this location, but the construction cost of \$810,000 for a facility to pass traffic over a track which accommodates only two trains a week was considered impracticable, however, this option is to remain open for the design phase of this project.

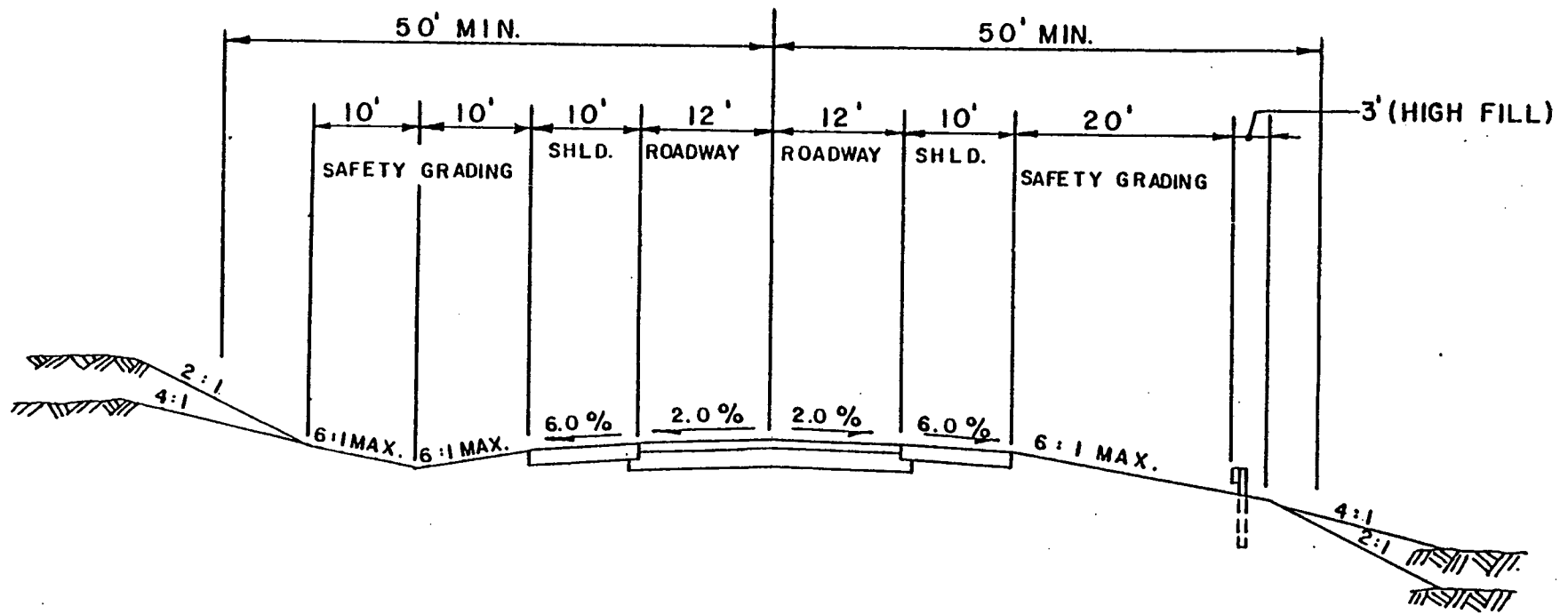
All design criteria utilized is in conformance with the latest American Association of State Highway and Transportation Officials (AASHTO) publications and Maryland State Highway Administration standards. Pertinent design information is summarized in Exhibit 3 below while traffic data is discussed in the following section.

EXHIBIT 3

Summary of Design Data

Design Speed	60 m.p.h.*
Minimum Grade	0.2 %
Maximum Grade	6.0 %
Maximum Degree of Horizontal Curvature	7°00'
Minimum Right-of-Way Width	100'
Grade Separations	Possibly 1
Access Controls	None

* 40 m.p.h. Station 100+00 to Station 114+00



CUTS OVER 2' BACKSLOPE 2:1

FILLS OVER 15' SLOPE 2:1 W/ GUARDRAIL

TYPICAL SECTION
TWO LANE RURAL HIGHWAY
 NO SCALE

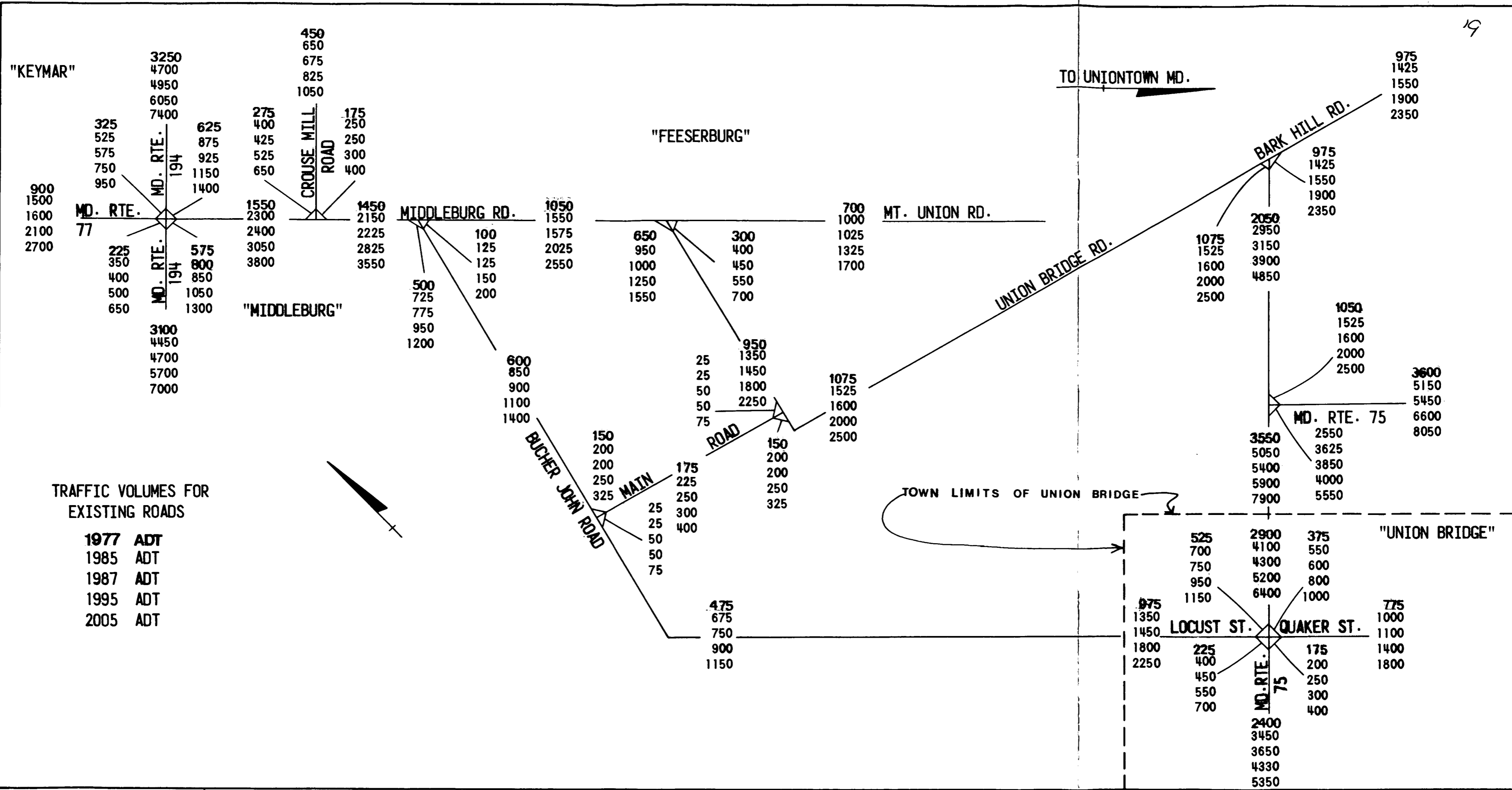
The dimensions shown are for the purpose of determining cost estimates and environmental impacts, and are subject to change during the final design phase.

STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION

MD. ROUTE 77 EXTENDED FROM MD.
 ROUTE 194 AT KEYMAR TO MD.
 ROUTE 75 AT UNION BRIDGE
 CONTR. NO. CL. 486-7-771

PROPOSED TYPICAL
 ROADWAY SECTION
 EXHIBIT 4

18

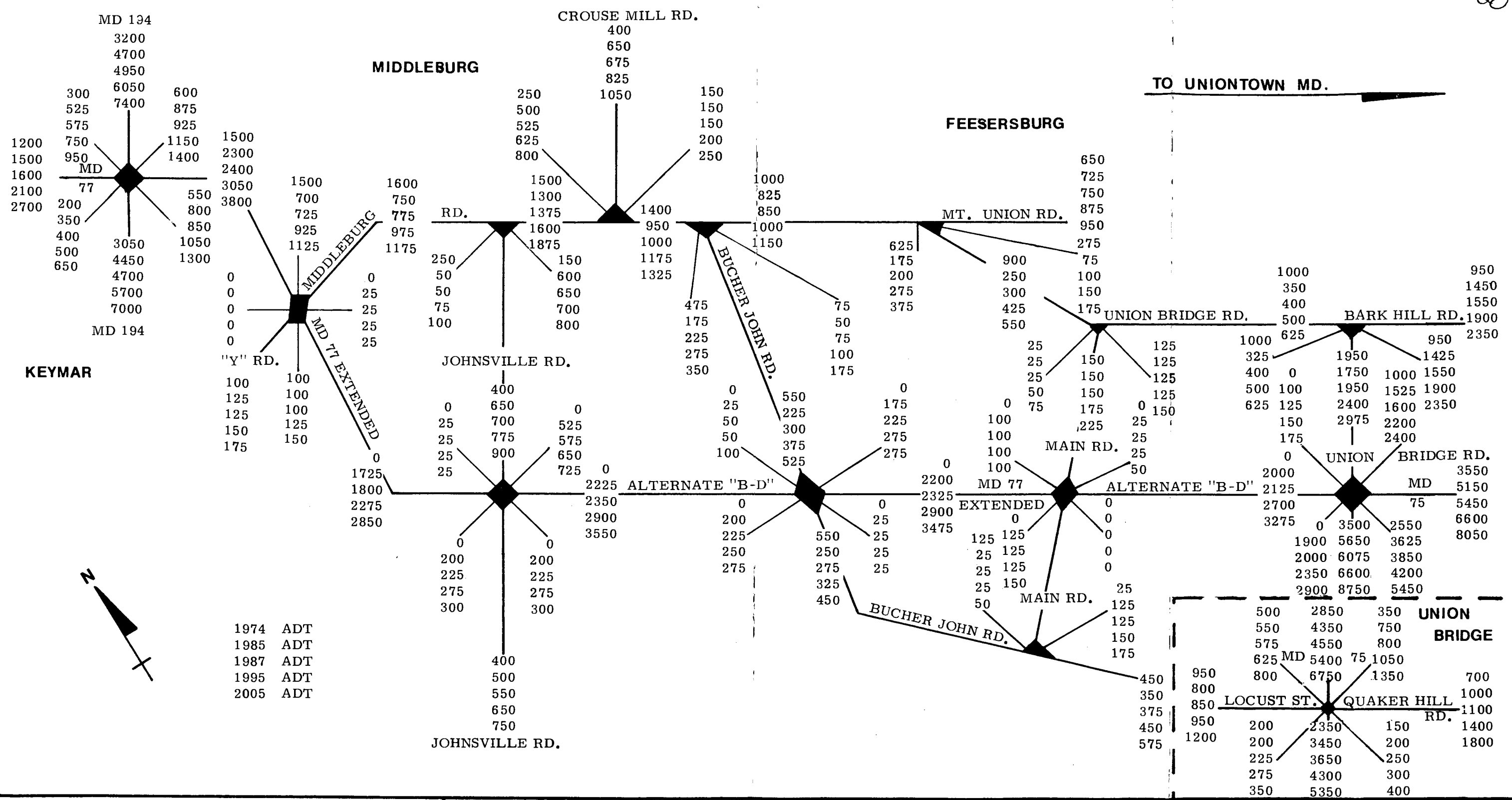


**SCHEMATIC TRAFFIC VOLUMES
NO BUILD ALTERNATE**

**PROPOSED ROUTE 77 EXTENDED
FROM ROUTE 194 AT KEYMAR
TO ROUTE 75 AT UNION BRIDGE**


Maryland Department of Transportation

EXHIBIT 5



SCHEMATIC TRAFFIC PLAN
SELECTED ALTERNATE

PROPOSED ROUTE 77 EXTENDED
FROM ROUTE 194 AT KEYMAR
TO ROUTE 75 AT UNION BRIDGE



Maryland Department of Transportation

EXHIBIT 6

MAY 1977

2.2 Traffic Data

Average daily traffic volumes (ADT) on the area roadway network have been forecast for the design year 2005, the estimated time of project completion 1985, and the intermediate years 1987 and 1995. These projections as well as existing (1977) volumes are presented for both the no-build and selected alternates in schematic form as Exhibits 5 and 6 on pages 9 and 10. Other pertinent traffic data for the area roadway network is summarized in Exhibit 7 below.

EXHIBIT 7

Summary of Pertinent Traffic Data*

Minimum Design Year ADT	2,850
Maximum Design Year ADT	3,800
Design Hour Volume (DHV)	11% of ADT
Directional Distribution (DD)	55% of DHV
Truck Traffic (T/ADT)	15.7%
Gasoline Powered	6.5%
Diesel Powered	9.2%
Truck Traffic (T/DHV)	9.0%

3. DESCRIPTION OF PROJECT ALTERNATIVES

During the previous stage of project planning studies, five alternates including the no-build alternative were developed and analyzed in terms of engineering, safety and environmental considerations. This analysis was compiled and presented as an Interim Alternates Report in April 1977. The location of each of the build alternates is shown in Exhibit 8 on the following page. Exhibit 9 on page 13 is a comparative summary of key features and costs associated with the build and no-build alternates while Exhibit 10 on pages 14 and 15 provides a comparison of relative advantages and disadvantages.

* Source - Maryland Department of Transportation.

ALTERNATIVE ALIGNMENTS

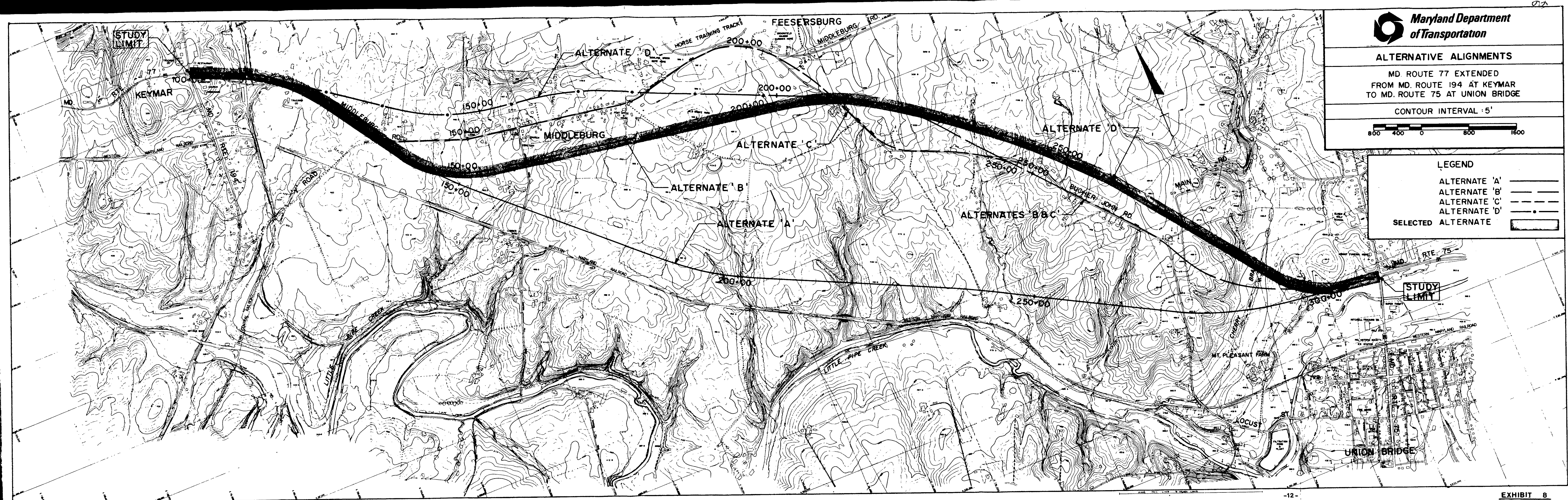
MD. ROUTE 77 EXTENDED
FROM MD. ROUTE 194 AT KEYMAR
TO MD. ROUTE 75 AT UNION BRIDGE

CONTOUR INTERVAL : 5'



LEGEND

- ALTERNATE 'A'
- ALTERNATE 'B'
- ALTERNATE 'C'
- ALTERNATE 'D'
- SELECTED ALTERNATE



SUMMARY OF ALTERNATES

ALTERNATES	LENGTH (MILES)	MAJOR AT-GRADE INTERSECTIONS	POSSIBLE GRADE SEPARATION STRUCTURE	STREAM CROSSINGS	MAJOR DRAINAGE STRUCTURE	R.O.W. REQUIREMENT	DWELLINGS BUSINESSES AFFECTED	R.O.W. COST (\$1,000)	CONSTRUCTION COST (\$1,000)	TOTAL COST (\$1,000)
A	3.98	5	1	5	1	RES. 1AC AGR. 49AC	1	196	2,499	2,695
B	4.07	8	1	4	1	RES. 5AC AGR. 45AC	1	309	2,212	2,521
C	4.17	10	1	4	1	RES. 23AC AGR. 29AC COM. 1AC	34 (2)	3,236	1,938	5,174
D	3.94	6	1	4	1	RES. 1AC AGR. 49AC	1	245	2,210	2,455
B-D	4.12	4	1	4	1	RES. 7AC AGR. 48AC COM. 1AC	1	295	2,635	2,930
NO BUILD	---	--	--	--	--	--	--	--	--	--

EXHIBIT 9

MARYLAND ROUTE 77 EXTENDED
FROM MD ROUTE - 194 AT KEYMAR
TO MD ROUTE 75 AT UNION BRIDGE



*Maryland Department
of Transportation*

2

ALTERNATE	ADVANTAGES	DISADVANTAGES
A	<ol style="list-style-type: none"> 1. Has least impact on existing residential development. 2. Provides most direct connection. 3. Removes truck traffic and noises from passing through residential areas. 4. Offers access to Western Md. R.R. for any future economic activities. 	<ol style="list-style-type: none"> 1. Severs largest number of 24 agricultural lands. 2. Provides poorest traffic service to local residents. 3. Has greatest impact on natural environment. 4. Changes land use character along Western Md. R.R. 5. Requires acquisition of right of way across property eligible for inclusion on the National Register of Historic Places.
B	<ol style="list-style-type: none"> 1. Provides good traffic service to local residents. 2. Has minimal impact on residential development. 	<ol style="list-style-type: none"> 1. Subdivides a large number of farm lands. 2. Affects many residences along Bucher John Road, by bringing in truck traffic. 3. Requires acquisition of right of way across property eligible for inclusion on the National Register of Historic Places.
C	<ol style="list-style-type: none"> 1. Has least impact on farm lands and operations. 2. Provides best local traffic service. 3. Offers least impact on natural environment. 	<ol style="list-style-type: none"> 1. Affects as many as 34 residences and 2 businesses. 2. Does not help reduce truck traffic and noise on local roads. 3. Is the most costly alternate. 4. Has serious traffic maintenance problems during construction. 5. Requires acquisition of right of way across property eligible for inclusion on the National Register of Historic Places.
D	<ol style="list-style-type: none"> 1. Has minimal impact on residential development. 2. Provides good local traffic service. 3. Takes truck traffic away from local roads. 4. Is the least expensive alignment. 	<ol style="list-style-type: none"> 1. Bisects many farm lands. 2. Has some impact on natural environment. 3. Affects some residences north of Middleburg Road. 4. Requires acquisition of right of way across property eligible for inclusion on the National Register of Historic Places.

COMPARISON
OF
ALTERNATES

EXHIBIT 10

MD. ROUTE 77 EXTENDED
FROM MD.-194 AT KEYMAR
TO MD.-75 AT UNION BRIDGE



Maryland Department
of Transportation

ALTERNATE	ADVANTAGES	DISADVANTAGES
B-D	<ol style="list-style-type: none"> 1. Has minimal impact on residential development. 2. Provides good local traffic service. 3. Removes truck traffic from local roads. 	<ol style="list-style-type: none"> 1. Severs large number of farm lands. 2. Has some impact on natural environment. 3. Requires acquisition of one residential property. 4. Requires acquisition of right of way from 1 property eligible for inclusion on the National Register of Historic Places, and 1 property of local historic significance.
NO BUILD	<ol style="list-style-type: none"> 1. Does not require a large amount of cash outlay. 2. Does not displace any family business or farm land. 3. Does not affect natural environment. 4. Does not have capacity deficiency problem on existing roads. 5. No impact on potential historic sites. 	<ol style="list-style-type: none"> 1. Lacks a direct connection between Keymar and Union Bridge 2. Offers no relief to truck traffic and noise on local rds. 3. Does not stimulate economic growth if so desired. 4. Inadequate pavement construction requires higher maintenance costs due to truck traffic. 5. Does not eliminate safety hazards on existing roads.

COMPARISON
OF
ALTERNATES

EXHIBIT 10 (Continued)
MD. ROUTE 77 EXTENDED
FROM MD.-194 AT KEYMAR
TO MD.-75 AT UNION BRIDGE



Based upon this analysis and comments from reviewing agencies, the Carroll County Department of Public Roads, and those made by concerned property owners at public meetings, it was decided to proceed to the detailed study stage with the build alternate B-D (a combination of Alternates B and D) and the no-build alternate.

Alternate B-D shown in Exhibit 8 on page 12 follows a course north of existing Middleburg Road for the first 1,600 feet before veering to the south, crossing Middleburg Road and more or less paralleling the existing road for approximately 2,000 feet. Then by a curve to the left and in an easterly direction, again following the existing road, but at a distance 600 feet to the south, the alignment continues for another 7,000 feet before crossing Bucher John Road. After crossing Bucher John Road the alignment takes a southeasterly course, somewhat paralleling Bucher John Road for a distance of 5,000 feet, intersecting Main Road and continuing in the same direction, crossing Cherry Branch and finally curving to the east to intersect Maryland Route 75 just north of Union Bridge.

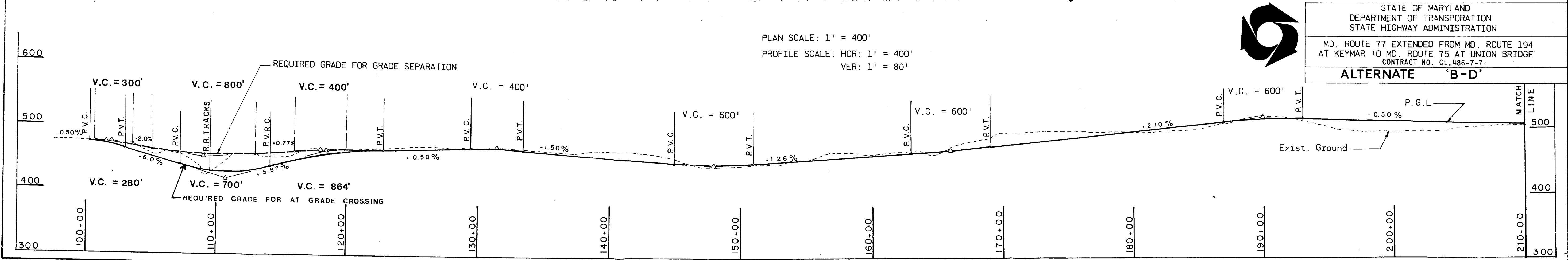
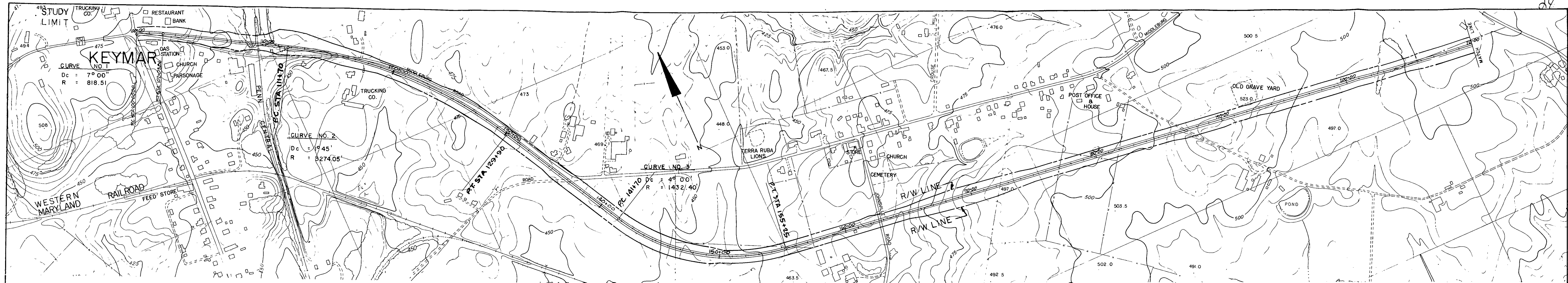
Alternate B-D would not disrupt the community of Middleburg which has been designated as an historic district. Additionally, this alignment would not bisect the working farms north of the Western Maryland Railroad tracks and likewise would not disrupt the natural habitat of pheasant and deer that exists in that area.

The No-Build Alternate would result in no improvements being made to the existing roadway network between Keymar and Union Bridge other than those involved in normal maintenance operations.

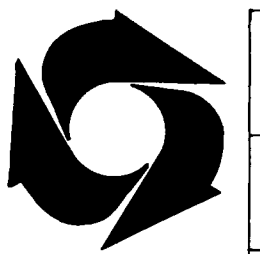
4. ENGINEERING AND COST CONSIDERATIONS OF THE ALTERNATIVES

The cost of constructing a roadway along Alternate B-D is estimated at \$2,930,000. Of this total, right-of-way costs including relocation assistance are estimated at \$295,000. Fifty-six acres of land would be acquired, 48 acres of which is presently zoned for agricultural use, 7 acres for residential use, and 1 acre for commercial use. Engineering considerations concerning the build alternate were previously discussed in Sections 2.1 and 2.2 on pages 6-11. Horizontal and vertical alignments are included here as Exhibit 11 on the following two pages.

The No-Build Alternate, while having no environmental impact, did nothing to relieve the existing problems. There is no construction cost to be considered, but this alternate perpetuated the use of local roads by trucks, thus continuing the safety hazards, the noise and pollution, as well as the high cost of roadway maintenance resulting from heavy truck traffic over roads with inadequate design for such traffic. It is estimated that with the construction of Alternate B-D traffic on the local roads would be reduced by 75 percent.



PLAN SCALE: 1" = 400'
 PROFILE SCALE: HOR: 1" = 400'
 VER: 1" = 80'

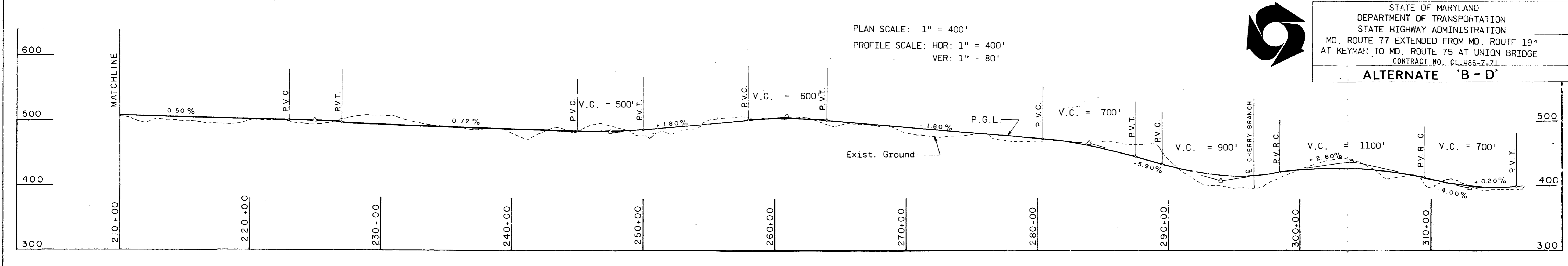
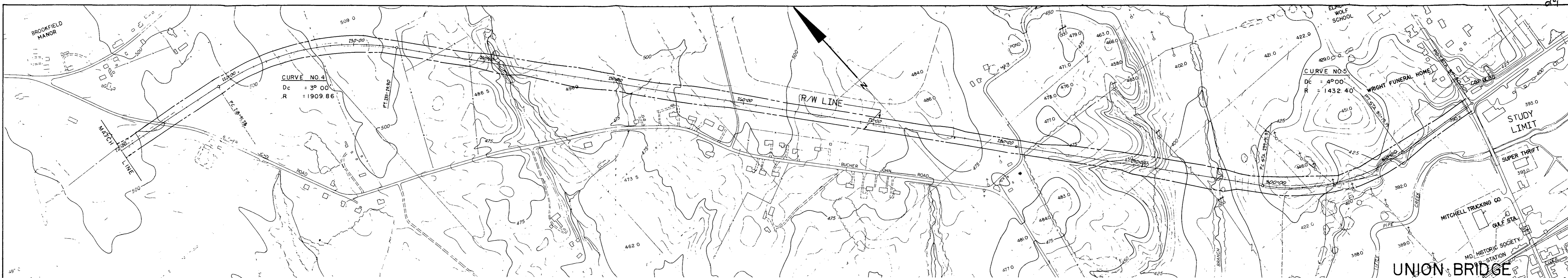


STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION

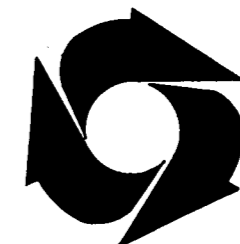
MD. ROUTE 77 EXTENDED FROM MD. ROUTE 194
 AT KEYMAR TO MD. ROUTE 75 AT UNION BRIDGE
 CONTRACT NO. CL.486-7-71

ALTERNATE 'B-D'

MATCH LINE
 500
 400
 300



PLAN SCALE: 1" = 400'
 PROFILE SCALE: HOR: 1" = 400'
 VER: 1" = 80'



STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 MD. ROUTE 77 EXTENDED FROM MD. ROUTE 19'
 AT KEYMAR TO MD. ROUTE 75 AT UNION BRIDGE
 CONTRACT NO. CL 486-7-71
ALTERNATE 'B - D'

II. NEED FOR THE PROJECT

1. DEFICIENCIES OF EXISTING FACILITIES

1.1 Condition of Existing Roads

Presently there is no one direct route from Keymar to Union Bridge. Anyone desiring to travel between these communities must do so through use of various county roads. These existing narrow roads have a 20-foot wide asphalt pavement. No shoulders are provided for safety and emergency stopping. Drainage facilities are inadequate for efficient storm discharge. Deterioration of pavement has occurred in many areas, primarily as a result of heavy truck traffic.

The existing roadways generally follow a meandering horizontal alignment which consists of several sharp curves. The profiles of these roads consist of a series of vertical curves with short tangents with a grade as steep as 6 percent in the vicinity of the Penn Central Railroad Crossing near Keymar.

Due to the lack of adequate sight distances, many sections of the existing roads are hazardous to travel.

1.2 Safety Record

The following accident tabulations are combined from the local roads between Maryland Route 194 at Keymar and Maryland Route 75 at Union Bridge for the three year period from 1973 to 1976.

<u>SEVERITY</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>
Fatal Accidents	1	0	0	0
Injury Accidents	7	7	1	9
Property Damage Accidents	11	10	10	20
TOTAL	19	17	11	29

The existing network of two-lane county roads serving this corridor experienced a total of 76 accidents during the four-year study period, from 1973 through 1976. These accidents resulted in an accident rate of 573.81 accidents per 100 million vehicle miles of travel (acc/100MVM) when the frequency of occurrence is compared to the total vehicle miles of travel. The accident cost to the general and motoring public resulting from these accidents is estimated at \$2,620,000/100MVM.

Under a no-build alternate we expect that as a result of the anticipated future increases in the traffic volume, the hazards on these roads will continue to increase as a consequence of the existing roadway's generally inferior design. While spot improvements would certainly contribute temporarily, they would be inadequate as a long-range abatement measure.

The prepared extension of Maryland Route 77 outlined in Alternate B-D would divert a significant proportion of the traffic now using this network to a safer designed facility. The resulting combined total accident rates which includes estimates for both the proposed state highway and the existing county system after construction is estimated at 417 acc/100MVM. The accident cost to the general and motoring public resulting from these accidents is estimated at \$2,051,000/100MVM. This construction then represents an improvement with a reduction of approximately 157 accidents and \$569,000/100MVM.

The accident cost as indicated includes present worth of future earnings of those persons killed and permanently disabled as well as monetary losses resulting from injury and property damage accidents. The unit cost utilized in the above computation were based upon actual cost values obtained from three independent accident cost studies conducted in Washington, D. C., Illinois, and California and have been updated to 1976 prices.

2. BASIS FOR THE PROPOSED PROJECT

The extension of Maryland Route 77 would result in an improved connection between Keymar and Union Bridge. A direct route between these two communities would provide area residents with an efficient local traffic service. As noted, this safer facility would reduce the corridor accident rate of the roadway network. Heavy truck traffic generated by the operations of the Lehigh Portland Cement and Mitchell Trucking Companies would be removed from narrow local roads. This redirection in truck traffic would result in a slowing of the deterioration of local roads as well as shifting air and noise pollution away from residential areas.

Accordingly, the project has been included in various state programs since 1971. The project's listing in the two most recent documents is as follows:

- 1979-1998 Needs Study
Line 10 - Maryland Route 77 Extended, Maryland Route 194 to Maryland Route 75 at Union Bridge (4.00), two-lane construction (critical)

- 1979-1983 Consolidated Transportation Program

Line 6 - Maryland Route 77 Extended, Maryland Route 194 at Keymar to Maryland Route 75 at Union Bridge (4.0), two-lane construction.

Even though this project has been listed in previous state construction programs and is currently listed in the Consolidated Transportation Program, design (project engineering), right-of-way acquisition and construction activity is projected beyond the program period (i. e., after 1983).

3. RELATIONSHIP BETWEEN THE PROJECT AND THE TRANSPORTATION SYSTEM OF THE AREA

Schematic traffic volumes for no-build and selected alternates have been included here as Exhibits 5 and 6 on pages 9 and 10. A comparison of average daily traffic on network roads under each alternate shows that traffic flows are reduced on existing roadways under the build alternate. This reduction, as estimated in terms of design year volumes on Alternate B-D, amounts to 3,500 trips a day or 385 trips during the peak-hour.

Construction of Alternate B-D will fill the gap which now exists in the state highway system, thus providing a continuous east-west system of State Highways throughout Central Frederick and Carroll Counties.

III. BASIS FOR NEGATIVE DECLARATION

The determination of a negative declaration for the proposed extension of Maryland Route 77 is based on the finding of no significant social, economic or environmental impacts resulting from project implementation. Beneficial impacts associated with construction of Alternate B-D would be primarily local in nature. Such benefits include reduction of heavy truck traffic on existing roads, reduced noise and air pollution levels for local residents, and improved access between Keymar and Union Bridge. Little or no impacts, beneficial or adverse, accrue to the county, region or state. Further, this action is consistent with the Carroll County Master Plan and the General Development Plan of the Regional Planning Council. It is also included in the 1979-1983 Maryland Consolidated Transportation Program.

Based upon a review of past, present and projected land use, population and economic data, there is little likelihood of substantial commercial or industrial development or population growth occurring in the Keymar-Union Bridge area, whether or not the project is undertaken. In itself, the proposed extension of Maryland Route 77 will not disrupt existing communities, result in significant land use changes or appreciably affect the present area growth rate.

Acquisition of right-of-way (56 acres) and construction along the proposed alignment will have a disruptive effect upon five farm operations. Forty-eight acres of farmland would be acquired, 34 of which is prime agricultural acreage. However, the loss of this acreage should not affect the economic viability of the farms affected. Low traffic volumes of the proposed extension will not create an undue hazard to the movement

of farm equipment or livestock across the alignment. In addition, right-of-way acquisition would take seven acres of residential land and one acre of commercial property. One family would be displaced but housing is available in the area. No minority group members would be affected.

No community facilities will be impacted outside of the relocation of utilities, possibly including one power transmission tower. Benefits to local residents would include reduced travel times for emergency vehicles.

Eight hundred feet of the alignment at its eastern terminus with Maryland Route 75 would encroach upon the 100-year floodplain of Little Pipe Creek. This encroachment will result in placing 1,000 cubic yards of fill upon the floodplain. Alternate B-D will also cross 5 streams between Keymar and Union Bridge. Four of these are intermittent, serving principally to drain adjacent fields, while the twelfth flows year round. Enforcement of state mandated preventative erosion and sedimentation practices should minimize any water quality impacts.

Wildlife and habitat impacts are negligible. There are no known endangered species present in the project area.

Air quality under the build and no-build alternates remains approximately the same for carbon monoxide at sensitive receptors. There will be no violation of State or National Ambient Air Quality Standards for carbon monoxide in areas adjacent to the project during completion and design years. Consequently, the project is consistent with the State Implementation Plan.

There will be noise sensitive areas within the project area that will experience adverse impact from traffic generated noise. Under Alternate B-D, three areas would experience L_{10} noise levels

of one to three dBA in excess of design levels. Since the proposed project is based upon no control of access, noise abatement measures for Alternate B-D will not be feasible.

Twenty-seven sites of historic significance have been identified within the project area. Right-of-way acquisition for Alternate B-D would require the taking of property from two of these sites. The Maryland Historical Trust has indicated that one of these sites does not meet the criteria for inclusion on the National Register of Historic Places. However, no historic structures would be taken if Alternate B-D were constructed. A 4(f) section is included as part of this environmental document for those historic sites where property will be required by Alternate B-D.

A more detailed assessment of beneficial and adverse impacts is presented in the following chapters of this Negative Declaration.

IV. SOCIAL, ECONOMIC AND ENVIRONMENTAL FACTORS

1. SOCIAL AND ECONOMIC CONSIDERATIONS

1.1 Population and Communities

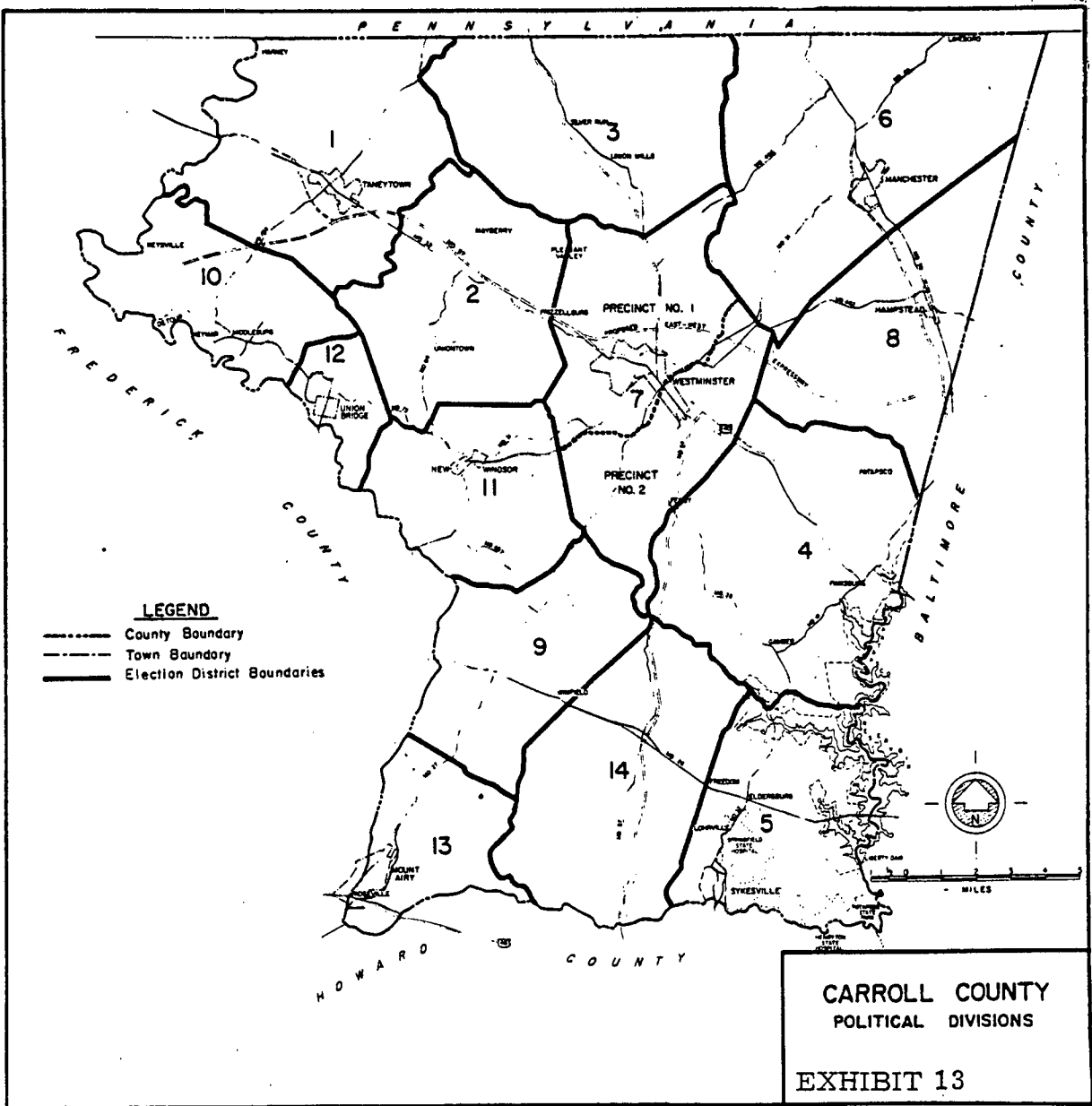
Inventory. There are four small communities in or near the corridor study area: Keymar, Middleburg, Feesersburg, and Union Bridge. According to the 1970 Census, Keymar, Middleburg, and Feesersburg, each had populations of less than 300 while Union Bridge had a population of 904. These communities and the surrounding area fall within Census Tracts 5100 and 5120 which correspond to Election Districts 10 and 12, respectively. The location of these districts is shown in Exhibit 13 on the following page. Population figures for these tracts in 1960 and 1970 are presented in Exhibit 12 below.

EXHIBIT 12

Population in Census Tracts 5100 and 5120

	<u>1970</u>	<u>1960</u>	<u>Percent Change</u>
Census Tract 5100 (Election District 10)	1,306	1,080	20.9
Census Tract 5120 (Election District 12)	<u>1,678</u>	<u>1,649</u>	1.8
TOTAL	2,984	2,729	9.3

Source: U.S. Bureau of the Census, Census of Population: 1970, Number of Inhabitants, Final Report PC(1)-A22 Maryland.



CARROLL COUNTY
POLITICAL DIVISIONS
EXHIBIT 13

Exhibit 12 shows that the two census tracts experienced an increase of 255 persons between 1960 and 1970 for an increase of 9.3 percent. The population growth rate for the same period in Carroll County was 30.7 percent with growth occurring at a higher rate in eastern Carroll County and in and around Westminster. The project area is characterized by low population density with low to moderate growth in population in recent years. Based on past trends, there is little likelihood of substantial residential development or population growth in this portion of Carroll County in the foreseeable future.

Population estimates prepared by the Carroll County Planning and Zoning Commission for 1976 and revised to include institutionalized residents reinforce this conclusion. The 1976 population for Election District 10 is estimated to be 1,395, and for Election District 12, 1,601. When compared with 1970 figures in Exhibit 12 on page 27, this shows a gain of 89 in Election District 10 and a loss of 77 in Election District 12 for a net area population gain of 12. Such figures suggest that limited growth is occurring in Election District 10 while the trend toward out-migration which started in the 1960's is continuing at present in Election District 12.

Characteristics of the 1970 population of the two census tracts are presented in Exhibit 14 on page 30. Of the 2,984 persons in Census Tracts 5100 and 5120 in 1970, there were 244 black persons and seven persons of other minorities. It appears that a large percentage of this black population is located in Union Bridge which is, for the most part, outside the corridor limits of the study. Also presented in this exhibit are census data for education, unemployment rates, employment by occupation and median income figures.

EXHIBIT 14

1970 Population Characteristics

	Census Tract 5100	Census Tract 5120	Carroll County	Baltimore SMSA
All Persons	1,306	1,678	69,006	2,070,670
White	1,300	1,433	66,127	1,569,307
Black	3	241	2,736	490,012
Others	3	4	143	11,351
Median School Years Completed	9.3	9.9	10.4	11.3
Unemployment Rate*	1.8%	1.4%	2.3%	3.4%
Employment by Occupation				
Total	446	686	27,343	810,545
Professional, Technical and Kindred Workers	38	91	3,180	128,561
Managers and Administrators	27	17	1,759	61,705
Sales Workers	--	34	1,431	56,879
Clerical and Kindred Workers	48	91	4,031	167,889
Craftsman, Foremen and Kindred Workers	76	116	4,942	117,553
Operatives	100	216	6,371	130,123
Laborers, Except Farm	44	13	1,049	36,673
Farm Workers	90	39	1,578	6,496
Service Workers	16	60	2,713	91,643
Private Household Workers	7	9	289	13,023
Median Income	\$7,579	\$8,550	\$10,204	\$10,577

Source: U.S. Bureau of the Census, Census of Population: 1970, General Social, and Economic Characteristics, Final Report PC(1)-C-22, Maryland and Census Tracts, Final Report PHC(1)-19, Baltimore SMSA.

* The unemployment rate in Carroll County was 5 percent in October of 1977. Unemployment rates in census tracts are probably higher in 1977 than those recorded in 1970 census.

The Keymar-Union Bridge area is rural in nature with the bulk of the land in active agricultural use. Development, except for scattered farmhouses and out buildings, is limited to low density clusters located adjacent to Middleburg Road and Bucher John Road at unincorporated places such as Middleburg and Feesersburg. Small scale commercial and industrial development does exist, but is located primarily at Union Bridge. Accordingly, most of the land in the project area is zoned as an agricultural district, but permitted and conditional uses are quite diverse. Local business and general business districts exist at Middleburg and Keymar respectively, while land in the vicinity of Union Bridge is zoned for light manufacturing.

A survey of residential building permits by election district for the 1968 to 1976 period shows that building activity in this portion of Carroll County has been very low. Of 7,793 permits issued county-wide over a seven-year period (1968-1975), only 9 or one percent were issued in Election Districts 10 and 12 which include the Keymar-Union Bridge-Keysville area. During 1976, only three permits were issued in this same area. For the January to August 1977 period, 10 permits were issued compared to 815 county-wide.

Impacts. Preliminary right-of-way estimates indicate that Alternate B-D will require the taking of one residence within the project corridor resulting in the displacement of one two-person family. Decent, safe, and sanitary housing within the financial means of the displaced family is available in the area. The time required to complete relocation is 6 months. No minority group members are affected. In itself, the proposed extension of Maryland Route 77 will not disrupt existing communities, result in significant land use changes or appreciably affect the present area growth rate. However, Alternate B-D will have a disruptive

effect upon active farming operations as it cuts across farming units and, therefore, severs contiguous parcels. Although this will not cause any of the farms to cease operation, this will create a hazard for farmers by requiring road-crossings for movement of farm equipment and livestock from one part of a farm operation to another. Since projected traffic volumes are relatively low, the conflict between traffic movement and farm operation does not appear to be a major problem given good alignment and adequate sight distances. Of greater concern is the increased potential for converting acreage abutting the roadway into residential lots. The strip residential development which might occur in the distant future might form an undesirable land use pattern both from the perspective of supplying community services and from efficient farm operation. However, Alternate B-D would minimize this consideration because of its proximity to present development along Middleburg Road and Bucher John Road.

A summary of the relocation assistance program of the Maryland State Highway Administration is presented as Appendix C of this document.

1.2 Community Facilities

Inventory. Community facilities and services, both public and quasi-public, available in and around the project area are limited. The Elmer Wolfe School near Union Bridge serves as the area grade school. Middle school students attend the North West Middle School in Taneytown while high school students go to Francis Scott Key High School also located in Union Bridge. Police protection is provided by the Maryland State Police stationed at Westminster. Local fire protection is available from Union Bridge, New Windsor and Taneytown under a cooperative agreement. Neither public sewer or water service is available outside of Union Bridge. Recreational facilities within the planning area are limited to one ballfield in Middleburg owned by the local Lions

Club and to several playing courts at the Bowling Brook Boys Home. No public parks or other recreational areas were noted, though some facilities exist outside the project area in Union Bridge.

Two institutions are located in the project area, the above mentioned Bowling Brooks Boys Home and the Brookfield Manor nursing home. The boys home population varies over time but is limited to a maximum of 12 (staff not included). The nursing home closed its operation in 1977.

Impacts. The impact of the selected alternate upon community facilities in and around the project area is negligible. None of the institutional buildings, including schools, will be required for the right-of-way. Utility relocation costs are estimated to be \$34,100 to \$74,000.

It is the policy of the Maryland State Highway Administration to insure compliance with the provisions of Title VI of the Civil Rights Act of 1969 and related civil rights laws and regulations which prohibit discrimination on the grounds of race, color, religion, national origin, physical or mental handicap in all program projects. This policy has been incorporated into all levels of the highway planning process in order that proper consideration be given to the social, economic, and environmental effects of all highway projects.

1.3 Local Economy

Inventory. The economy of the Keymar-Union Bridge area and Carroll County in general has traditionally been based on agriculture, with dairy farming the major agriculture activity. There are a few small retail outlets located along Maryland Route

194 and along Middleburg Road and numerous retail outlets in Union Bridge. A lumber yard is located near the intersection of the Western Maryland Railroad tracks and Johnsville Road.

According to the Community Economic Inventory of June 1974 for Carroll County prepared by the Maryland Department of Economic and Community Development, there are four major employers located in Union Bridge. These firms and the number of persons they employ are listed in Exhibit 15 below.

EXHIBIT 15

Major Employers in Union Bridge

<u>Firm</u>	<u>Product</u>	<u>Employment</u>
Lehigh Portland Cement	Cement	180
Pfoutz, M. R., & Sons, Inc.	Stair material	38
Union Bridge Clothing Co.	Men's clothing	200
Mitchell Transport, Inc.	Trucking	107

There are no major employers in Keymar or Middleburg. Economic activities are limited to a few stores in Keymar and Middleburg as well as a trucking company in Keymar. In addition, the Community Economic Inventory for Carroll County mentions an industrial site located adjacent to Maryland Route 75 and one-quarter mile east of Union Bridge. This 13.4-acre site is known as the Phillips site and is presently zoned IR (Industrial Restricted).

Mineral resources consist of potential limestone deposits in the eastern portion of the study area. The Lehigh Portland Cement Company presently operates a limestone quarry located in the eastern part of Union Bridge.

Impacts. Discernible economic impacts associated with Alternate B-D are relatively minor. Approximately 56 acres of taxable land (principally agricultural) would be taken for highway right-of-way. However, no businesses would be acquired.

The completion of the project will provide an improved means of transportation for local trucking firms; but, it is not expected to attract new industries to the area or affect the present economic base. As noted earlier, Alternate B-D will affect farm operations by dividing farms and requiring productive lands for right-of-way.

2. NATURAL ENVIRONMENTAL CONSIDERATIONS

2.1 Climate

Inventory. The Keymar-Union Bridge area lies in a region that has a continental climate with four well-defined seasons. Prevailing surface winds are from the west-northwest to northwest except from May to September when the winds become more southerly. The annual wind speed averages approximately nine miles per hour.

Weather records for the area were obtained from the Weather Bureau Cooperative station at Westminster. Exhibit 16 on the following page presents temperature and precipitation data for Westminster, Carroll County. The average annual temperature is 53.1° F. In general, late January to early February is the coldest time of year while the last half of July is the warmest time of year. Precipitation is fairly evenly distributed throughout the year with a slight increase in August. The annual precipitation at Westminster averages 41.84 inches. Although the average annual snowfall is 33.5 inches, it can vary greatly from year to year.

Average Temperature and Precipitation
Data (1941-1970) Westminster Weather
Station, Carroll County, Maryland

Month	Temperature (°F) Monthly Average	Precipitation (Inches) Average Total	Snowfall (Inches) Average Total	Average Number of Days 32°F and Below
January	31.4	2.97	7.9	26
February	33.0	2.79	8.7	23
March	41.1	3.88	8.4	19
April	52.5	3.43	0.2	5
May	62.0	3.69	---	*
June	70.4	3.65	---	--
July	74.5	4.52	---	--
August	72.7	4.10	---	--
September	66.2	3.04	---	*
October	55.7	2.94	T	3
November	44.5	3.36	1.3	13
December	33.4	3.47	7.0	25
Year	53.1	41.84	33.5	114

* Less than one-half day

Source: National Weather Service Climatic Data for Maryland Years
1941-1970.

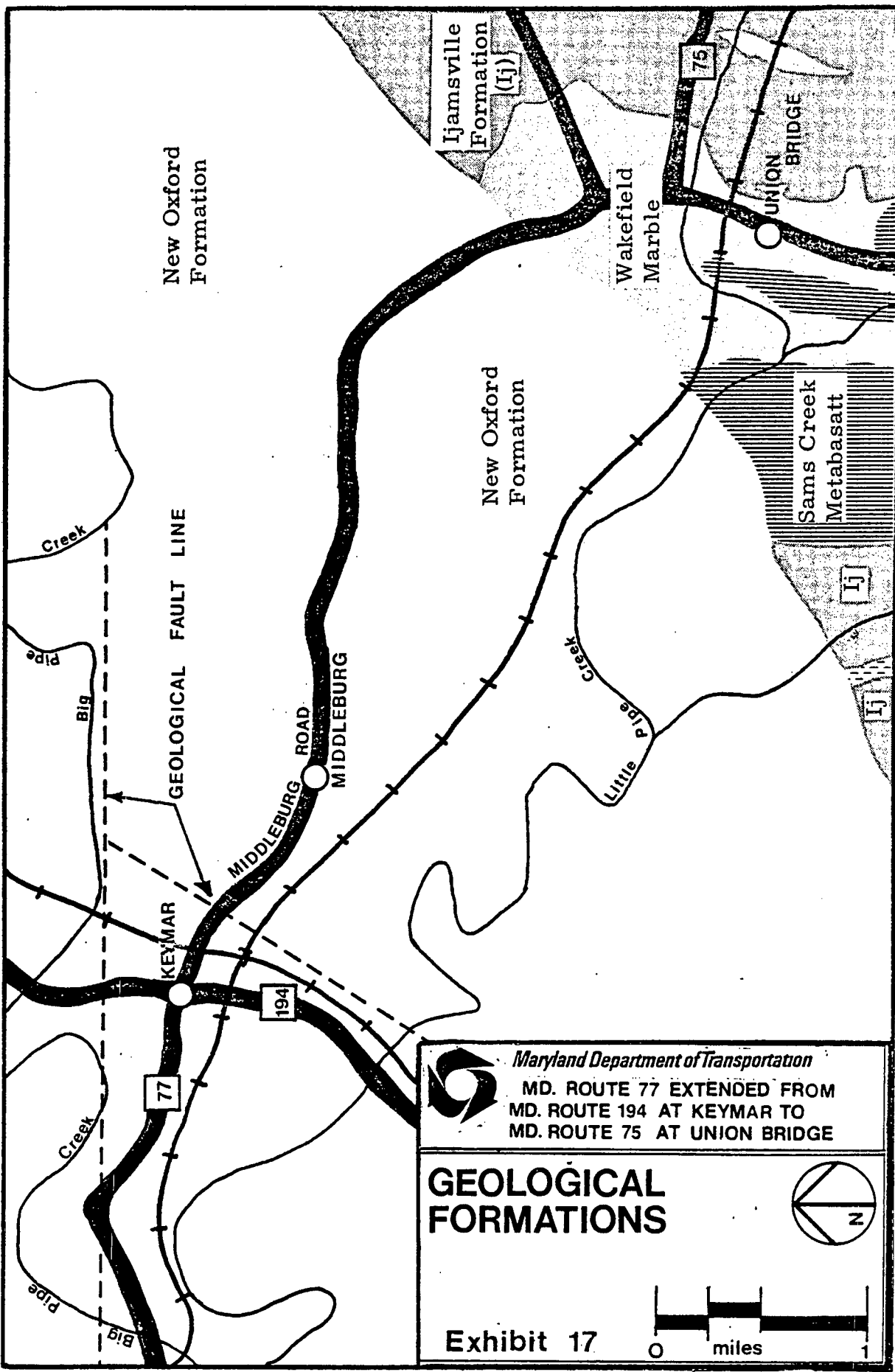
Impact. Construction of the selected alternate will have little or no effect upon the area microclimate.

2.2 Geology and Soils

Inventory. Carroll County is located in the Piedmont physiographic province. This region is underlain by metamorphic rocks of Precambrian and Cambrian age that consist primarily of schist, phyllite and associated marble and limestone. At the western edge of the province along the eastern foot of Catoclin Mountain, the Piedmont is underlain by Cambrian and Ordovician limestone and triassic shale and sandstone. The stratigraphy and structure of the province are complicated by unconformities, faults, and bodies of intrusive rocks.

The project area is located in the western division of the province in the Triassic upland. The predominant rock types of the area are the sandstone-shales of the New Oxford formation. In addition, carbonate rocks of the Wakefield Marble formation occur in a small area near Union Bridge. The New Oxford formation is characterized by northwest-dipping beds of red and grey arkosic sandstone overlain by Gettysburg shale. The Wakefield Marble formation crops out in linear bands that trend to the northeast and is generally a closely folded white crystalline marble composed of calcite and dolomite. In the Union Bridge area its thickness is estimated to be 150 feet. Exhibit 17 on page 38 shows the location of the geologic formations described above.

The New Oxford and Wakefield Marble formations are both important aquifers in Carroll County. Groundwater occurs primarily in pores and fractures of these rocks. In addition, the



Maryland Department of Transportation

MD. ROUTE 77 EXTENDED FROM
MD. ROUTE 194 AT KEYMAR TO
MD. ROUTE 75 AT UNION BRIDGE

GEOLOGICAL FORMATIONS

Exhibit 17

0 miles 1

carbonate rocks contain openings which have been solutionally enlarged. The Wakefield Marble formation has the highest average yield of any geologic formation in Carroll County. Based on a sample of 38 wells, the average yield was 106 gallons per minute with an average depth per well of 139 feet. The yields of 124 wells in the New Oxford formation ranged from 1 to 65 gpm and averaged 11 gpm*.

A review of the Geologic Map of Maryland** indicates a series of fault lines in the vicinity of Keymar and Union Bridge. One such line passes through the project area to the east of the Penn Central (Conrail) tracks near Keymar (refer to Exhibit 17). The Maryland Geologic Survey has stated that the fault is inactive and therefore of no consequence.***

Mineral resources which are present include both marble and limestone. Marbles found near Union Bridge have black and white, grey and white, and blue and white veining. Limestone deposits along Sam's Creek to the southeast of Union Bridge are quarried by the Lehigh Portland Cement Company. Limestone deposits may also be present in the eastern portion of the project area.

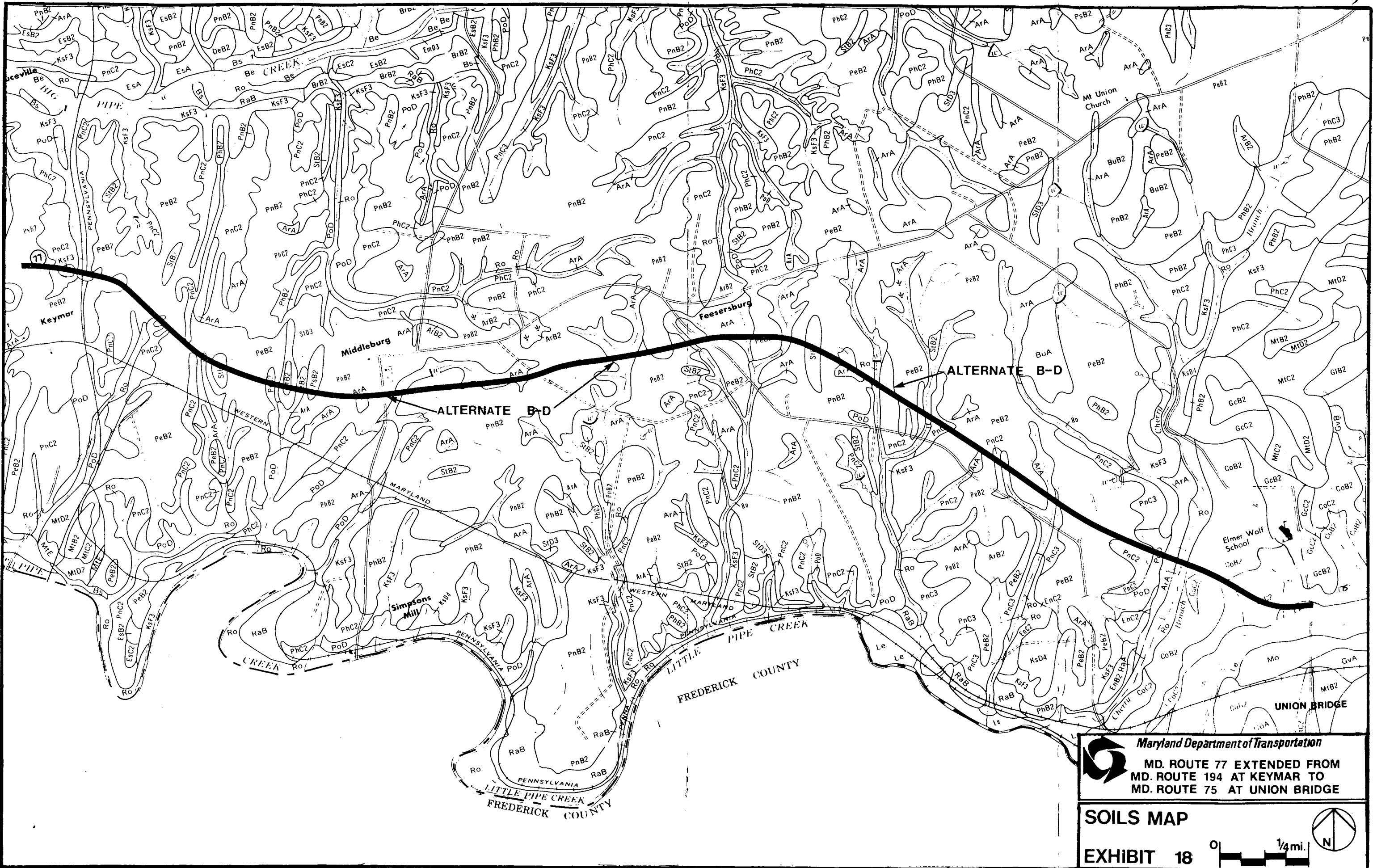
The sandstone-shales and carbonate rocks described above are the parent material from which area soils were formed. These soils are generally of the Penn-Klinesville-Abbottstown

* The Water Resources of Carroll and Frederick Counties, Maryland Geologic Survey.
** Geologic Map of Maryland, Maryland Geologic Survey, 1968.
*** Letter to Dr. Edwards, Maryland Geologic Survey, dated September 22, 1977.

association. Between Keymar and Union Bridge, the predominant soils types are: Abbottstown silt loam (ArA); Penn loam (PeB2); Penn shaly silt loam (PhB2); Penn silt loams (PnB2 and PnC2); and Penn Steinsburg loam (PsB2). Near Union Bridge in the vicinity of Cherry Branch, the Penn-Klinesville-Abbottstown association is replaced by the Mt. Airy-Glenelg association. The dominant soils in this area are part of the Conestoga series (i. e., Conestoga silt loams, CoB2 and CoC2). Other minor soils include Klinesville (KsF3), Landside (Le), Rowland (Ro), and Steinsburg (StB2) loams. Location of the soil types is shown in Exhibit 18 on the next page.


The soils of the Abbottstown series are characterized as being poorly drained; however, with tilling or ditching, they are suitable for most crops, as well as for pasture. The Penn series soils are suitable for cropping, pasture, and woodlands. The main limitations that affect their use are restricted depth, limited availability of moisture capacity, and the hazard of erosion. Conestoga series soils are well suited for agricultural uses, but are especially susceptible to erosion. The Rowland and Lindside series have a flood hazard.

Soils suitability for more intensive (urban) uses, such as housing, road construction, and recreation is as follows: Abbottstown silt loams present severe limitations to construction of residential units with basements, moderate limitations to construction of streets, and moderate to severe limitations for location of recreational areas due to slow permeability and seasonally perched water tables. The Penn series exhibits moderate to severe limitations concerning the above-mentioned types of development due to shallow depth to bedrock (i. e., 1.5 feet to



Maryland Department of Transportation
 MD. ROUTE 77 EXTENDED FROM
 MD. ROUTE 194 AT KEYMAR TO
 MD. ROUTE 75 AT UNION BRIDGE

SOILS MAP
EXHIBIT 18


 0 1/4 mi.

3.5 feet) and slope (i. e., 8 to 15 percent for PnC2). Conestoga soils also show moderate to severe restrictions because of slope 8 to 15 percent) and moderately slow permeability.

As mentioned, the bulk of the study area is covered by soils in the Penn-Klinesville-Abbottstown association. The Soil Survey of Carroll County, Maryland, prepared by the Soil Conservation Service, notes that areas containing these soils are likely to remain in agricultural use rather than undergo development unless municipal sewer and water service is available*.

Correspondence with the Soil Conservation Service indicates that prime agricultural lands have been identified in Carroll County by specific soil mapping units. To date, no unique farm-lands have been located in Carroll County. The relative importance of prime agricultural lands in the study area is as follows:

	<u>Total Acreage</u>	<u>Prime Agricultural Acreage</u>	<u>% of Prime Agricultural Land</u>
Carroll County	289,920	85,657	30%
Study Area	1,450	830	57%

Impacts. Area geology, even with the presence of an inactive fault line, should create no unusual problems regarding construction of the build alternate. As noted, limestone deposits may be present in the project area, but none are known to exist along Alternate B-D.

* Earle D. Mathews, et. al. Soil Survey of Carroll County, Maryland. (Washington: Soil Conservation Service, U.S. Department of Agriculture, 1969), p. 3.

Impacts upon soils amount to permanent loss of areas containing soils particularly well suited for agricultural use. Acquisition of right-of-way for the build alternate would result in permanent loss of 48 acres of land now actively in use for dairying and cropping (corn, wheat, alfalfa) in support of dairying. Thirty-four acres of this total is prime agricultural land, or approximately 4 percent of the total prime agricultural acreage within the study area.

Exhibit 19 on the following page indicates the soil mapping units crossed by Alternate B-D and gives the percentage of the four mile alignment that is within each soil type. More than 61 percent of the alignment would be constructed across prime agricultural land, 3 percent would cross floodplain soils, and 18 percent would cross soils having water table within 2.5 feet of the surface.

The removal of ground cover during construction would result in soil erosion. However, strict enforcement of soil erosion and sedimentation practices will minimize any impacts. Of greater concern are the 5 small drainage ways which the alignment crosses. These drainage ways constitute approximately 20 percent of the alignment's length. Areas noted above having high water tables will have to be crossed with care to avoid sediment reaching these tributaries and eventually Little Pipe Creek.

2.3 Water Quality

Inventory. The Keymar-Union Bridge area lies within the Monocacy River drainage basin. The Monocacy River, a major tributary of the Potomac River, flows southward from Pennsylvania

EXHIBIT 19

Soil Mapping Units Crossed by
Alternate B-D

Soil Symbol	Soil Type	% of Proposed Roadway	Prime Agricultural Soils	Major Limitation to Road Construction
ArA	Abbottstown (0-3%)	18	No	Perched water table ($\frac{1}{2}'$ - $2\frac{1}{2}'$); severe frost action
CoB2	Conestoga (3-8%)	5	Yes	Moderate frost action
CoC2	Conestoga (8-15%)	>1	No	Moderate frost action
KsF3	Klinesville (15-65%)	4	No	Shallow to bed-rock
Le	Lindside (0-3%)	2	Yes	Flood hazard, water table
PeB2	Penn loam (0-8%)	36	Yes	Shallow to bed-rock
PnB2	Penn silt loam (3-8%)	27	Yes	Shallow to bed-rock
PnC2	Penn silt loam (8-15%)	5	No	Shallow to bed-rock
PoD	Penn (15-25%)	>1	No	Shallow to bed-rock
Ro	Rowland (0-3%)	>1	Yes	Flood hazard, water table
StB2	Steinsburg (3-8%)	1	Yes	Shallow to bed-rock

Source: Soil Survey of Carroll County, Maryland, 1969.

across the Triassic upland and the eastern border of the Frederick Valley. It joins the Potomac River at the southern tip of Frederick County.

In terms of water quality, the major stream of concern is Little Pipe Creek which flows through central and western Carroll County. Between Keymar and Union Bridge, this stream lies to the south of the Western Maryland Railroad tracks. Near Union Bridge, it runs south of Maryland Route 75. Within the project area 11 intermittent streams and Cherry Branch drain southward into Little Pipe Creek. Cherry Branch is a supply of water for roughly 12 homes north of Union Bridge.

A Draft Environmental Impact Statement for the Big and Little Pipe Creek watershed was prepared in February 1975 by the Soil Conservation Service. This document discussed three potential impoundments on the Little Pipe Creek (all located to the east of Union Bridge) and an impoundment on Big Pipe Creek. Discussions with the Soil Conservation Service indicate that at the present time there is little likelihood that the impoundments will be constructed due to opposition of the local populace to the projects. The report does provide historical water quality data for the Little Pipe Creek at the crossing of Good Intent Road, west of Union Bridge, and at the crossing of Maryland Route 194 which shows that the stream was within the state standards for dissolved oxygen, BOD, turbidity, and pH, but that the standard for fecal coliform was exceeded. The Little Pipe Creek is categorized as Class IV waters. Class IV waters are recreational trout waters which are capable of holding or supporting adult trout for put and take fishing by periodic stocking. From observation of the stream in the proximity of the study area, the primary

sources of high coliform counts appear to be runoff from agricultural activities and the effluent from the sewage lagoon at Union Bridge. Other areas of concern in terms of water quality are several farm ponds in the project area.

Impacts. Construction of Alternate B-D will involve crossing 5 tributaries of Little Pipe Creek including Cherry Branch; however, none of these streams would be relocated if Alternate B-D were constructed. Each of these streams has between 50 and 300 feet of poorly drained soils adjacent to it. These stream crossings pose potential erosion and sedimentation problems. Erosion problems during construction could result in increased turbidity, sediment loads, temperatures, and biological oxygen demand levels in the small streams and also in Little Pipe Creek. A study prepared for the Environmental Protection Agency concluded that stream crossings during construction activities could disturb and suspend the quiescent bottom sediments and increase the biological oxygen demand*. The study indicated that agitation alone was found to account for at least a ten-fold increase in maximum oxygen demand. In addition, it was also determined that the maximum uptake rate is very sensitive to temperature, the degree of disturbance, and the total volatile solids concentration of the benthic material.

Proper construction planning, and the implementation of state mandated erosion and sediment control measures and water permit actions will minimize these problems. The water supply source for 12 homes on Cherry Branch will not be affected by the crossing because it would occur downstream from the water supply source.

* Seattle University, The Oxygen Uptake Demand of Bottom Sediments. 1970, Seattle, Washington, pp. 38.

The proposed project may also result in increased runoff due to an increase in the amount of impermeable road surface and increased pollutant materials from roadway surface runoff. The pollutant materials are expected to be present in relatively small quantities and should have little, if any, impact on water quality.

In addition, the eastern 800 feet of Alternate B-D would encroach upon the 100-year floodplain of Little Pipe Creek. (See Exhibit 32 on page 83.) This encroachment would result in the placement of approximately 1,000 cubic yards of fill at the outer fringes of the floodplain on the downstream side of the Maryland Route 75 crossing of Little Pipe Creek.

Observations made during high flows indicate that water flows across Maryland Route 75 through the existing bridge and over the roadway south of the bridge. Based on the location of the bridge, the areas of "over the roadway flow", and the small loss of storage in relation to the size of the Little Pipe Creek floodplain, the encroachment should not inhibit the water carrying ability of the floodplain. Since this small loss of storage is negligible, there should be no discernable impacts to Little Pipe Creek and Cherry Branch or to properties located within the floodplain.

2.4 Vegetation and Wildlife

Inventory. Field observations and investigations indicate the presence of several different vegetation communities in the project area. They include pasture fields, producing agricultural fields, and small deciduous forested tracts between field areas. Since the predominant land use of the area is agricultural, the amounts of vegetation and wildlife habitat are felt to be rather limited.

Most of the vegetation consists of agricultural crops such as corn and wheat. The remaining field areas are used for pasture and hay fields with alfalfa, clover, and other grasses. In the fields adjacent to the forested tracts, wildlife species such as meadow mouse, Microtus pennsylvanicus; white-footed mice, Peromyscus spp.; and shrews of the genera Sorex, Cryptotus, and Blarina are thought to be common inhabitants. Species actually observed in the fields include the eastern cottontail rabbit, Sylvilagus floridanus; ground hog, Marmota monax; bobwhite quail, Colinus virginianus; mourning dove, Zenaidura macroura; and many passerine birds of the order Passeriformes. The fields and open brushy areas along the wooded tracts provide suitable habitats for the above species because of their plentiful food sources such as grasses, grain crops, and insects, as well as proper and adequate vegetation for use as cover, nesting, and rearing of young. In addition, various raptor species such as hawks of the genera Falco, Circus, and Buteo, and owls of genera Otus and Strix are thought to frequent the field areas for food.

Most tree masses are located north of the Western Maryland Railroad line and south of Bucher John Road. These tracts of deciduous forest lie in long fingers or sheaths and are comprised of lowland and upland species. The lowland species lie along the small drainage areas of the fields and along Little Pipe Creek, the upland species lie away from the wetter drainage areas on small hills or knolls. In addition, there are some stands of trees scattered around the fields, along roads, and around homes in the area. The upland and lowland species are considered to be almost in their climax stage. Therefore, if left undisturbed, the present composition of the area's forest tracts should not significantly change.

The vegetation species common to the small stream and drainage areas include the red maple, Acer rubrom, sugar maple, A. saccharum; black cherry, Prunus serotina; black locust, Robina pseudoacacia; white and green ash, Fraxinus americana; and the sycamore, F. pennsylvanica. The above species range in height from 50 to 100 feet and are dispersed throughout the area according to their moisture tolerance. These generally narrow sheaths of vegetation provide the best habitat for wildlife in the area. Although the forested areas are small, they are also a food and cover source for wildlife in the adjacent agricultural fields.

Wildlife species that are thought to be common to the wooded areas include various amphibians and reptiles such as the common tree frog, Hyla versicolor; the bullfrog, Rana catesbeiana; American toad, Bufo americanus; red-backed salamander, Plethodon Cinerus; eastern painted turtle, Chrysemys picta; eastern black racer, Coluber Constrictor; green snake, Opheodrus aestivus; and the eastern five-lined skink, Eumeces faciatus. Species actually observed in this area include the garter snake, Thamnophis ordinatus; the eastern box turtle, Terrapene carolina; and an eastern cottontail rabbit. The above species inhabit the low lying areas because of the availability of a water source that is necessary for their survival.

The more prevalent upland vegetation species include the northern red oak, Quercus rubra; southern red oak, Q. Falcata; white oak, Q. alba; black oak, Q. Velutina; and chinlappin oak, Q. muehlenbergii. These species thrive in the drier and more acid edaphic conditions of the upland areas. The species of oak lie in almost pure stands that are occasionally interspersed with

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the Virginia pine, Pinus glabra. These trees are generally uniform in height and range from 75-100 feet with the Virginia pine generally dispersed around the periphery of the stands.

The more common wildlife species that inhabit the upland areas include the eastern gray squirrel, Sciurus carolinensis; quail, eastern chipmunk, Tamias striatus; cottontail rabbit, an occasional skunk, Mephitis mephitis; or opossum, Didelphis narsupialis; and a variety of passerine birds of the order Passeriformes. Of these, the gray squirrel, cottontail rabbit, and quail were observed during field investigations. The tree dwelling species obtain food and cover from the oak trees, while the other species frequent both the upland and lowland areas and fields for food. In addition, the study area supports moderate populations of other game birds and wildlife such as the ring-neck pheasant, Phasianus colchicus; observed during field investigations, and the white-tailed deer, Odocoileus virginianus.

The understory vegetation species common to the scattered wooded stands include such species as honeysuckle, Lonicera spp.; wild grapevines, Vitaceae; blackberry bushes, Rubus spp.; multiflora rose, Rosa spp.; poison ivy, Rhuspa; poison sumac, Rhus sp.; dogwood, Cornus florida; staghorn sumac, Rhus typhina; and small trees of the overstory species.

There are no known endangered wildlife species or wetland areas in the study area.

Impacts. Alternate B-D would cross the northern portion of a single forested tract approximately 26 acres in size located west of Cherry Branch and east of the intersection of Bucher John Road with Main Road. (See Exhibit 32 on page 83.) It is estimated

that this crossing will result in the loss of 1.5 acres of wooded habitat. The tract involved is composed primarily of the upland vegetation discussed previously. There will be some displacement of wildlife and disruption of feeding and nesting activities due to the above loss of habitat. Affected wildlife will probably look for new habitats within the same tract or in nearby areas. This may result in overcrowding and competition for food and cover in adjacent areas. However, this is not expected to significantly affect the balance of wildlife in the area.

3. AIR QUALITY

Inventory. Keymar and Union Bridge are located in the Metropolitan Baltimore Intrastate Air Quality Control Region which includes Baltimore City and Anne Arundel, Baltimore, Carroll, Harford, and Howard counties. This air quality control region has a priority classification of I for particulate matter, sulfur oxides, nitrogen dioxide, carbon monoxide, and photochemical oxidants. The closest monitoring stations in the Maryland Bureau of Air Quality Control's monitoring network are located at Westminster, New Midway, and Thurmont, none of which monitor carbon monoxide on a regular basis. However, in November and December 1974, a carbon monoxide monitoring program was conducted for the State Highway Administration in Thurmont, Maryland, approximately 10 miles west of the project area. The maximum one-hour concentration measured was 5.5 ppm; the second highest 5.0 ppm. The maximum eight-hour concentration measured was 2.9 ppm; the second highest 2.8 ppm. These measurements were considerably below the National Ambient Air Quality Standards of 35 ppm for a one-hour period and 9 ppm for an eight-hour period.

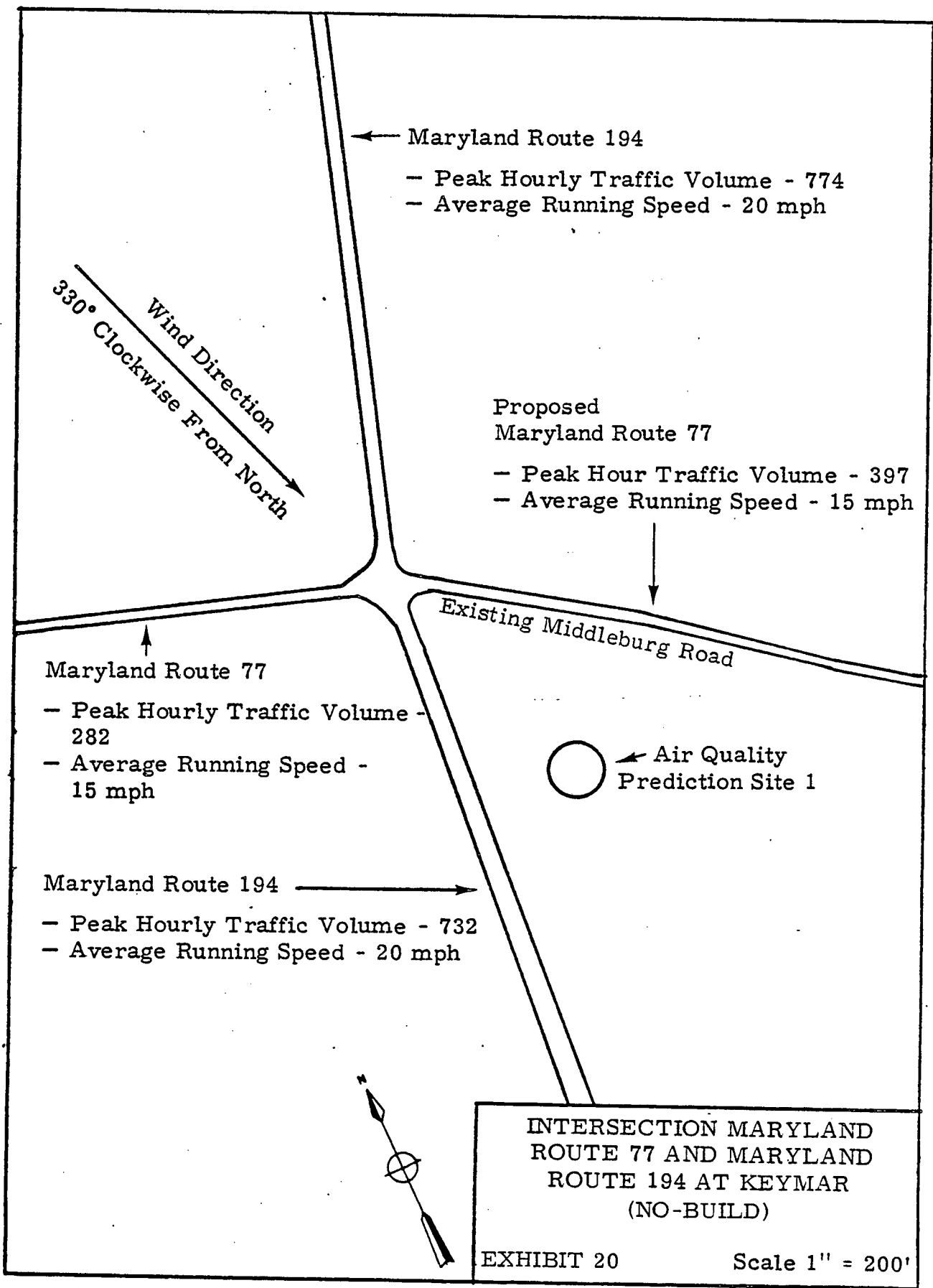
Impacts. In order to determine the impact on ambient air quality of the proposed project, an analysis was conducted to predict the carbon monoxide concentrations that would occur adjacent to the roadway in the current year (1977), the completion year (1985), and the design year (2005). The analysis concluded that no violations of the one-hour or eight-hour State or National Ambient Air Quality Standards for carbon monoxide will occur as a result of this project.

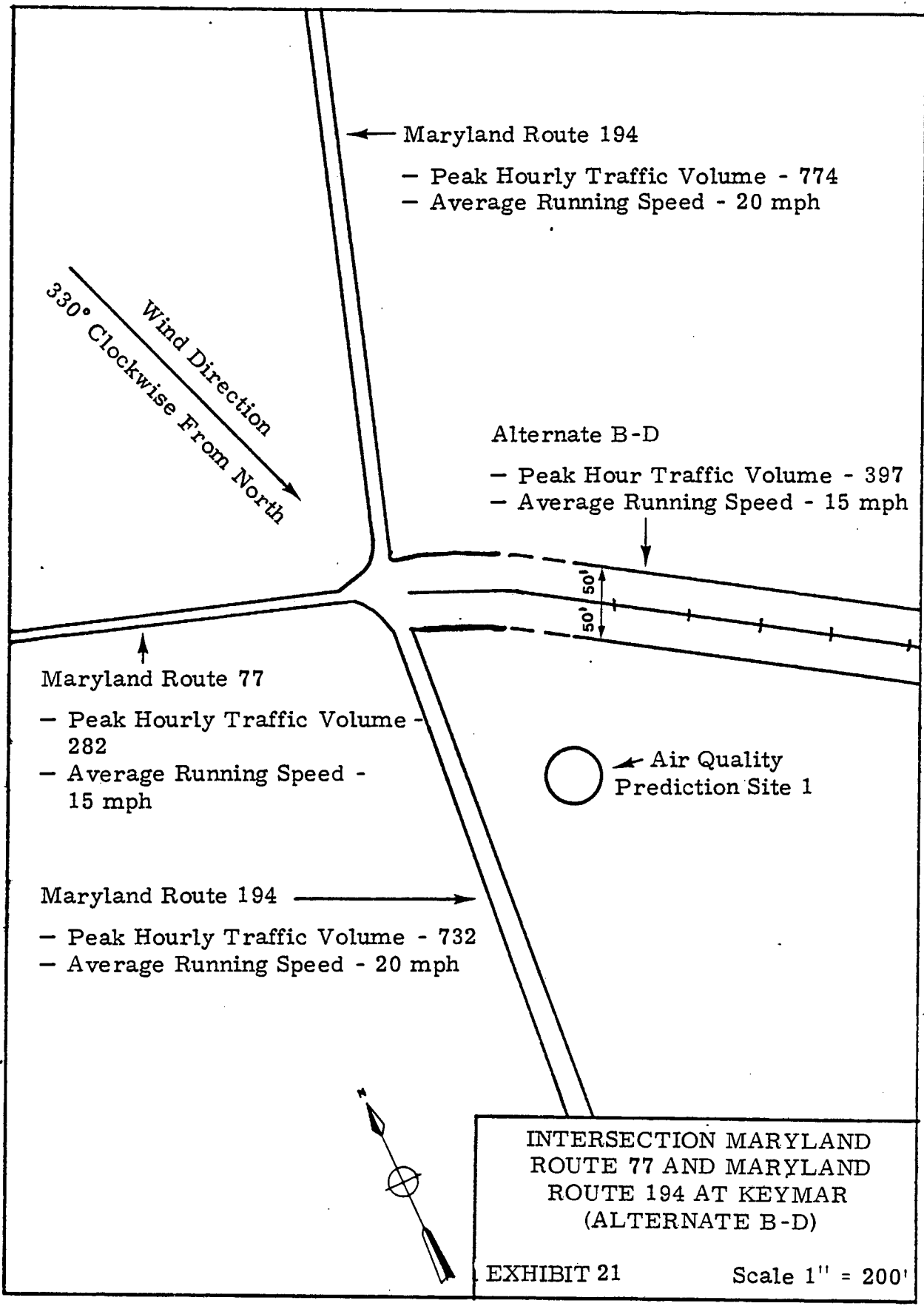
The following inputs and assumptions were used in making this analysis:

- Average operating speeds of 50 mph and 30 mph were assumed for Alternate B-D and the No-Build Alternate, respectively, except for intersection areas where operating speeds of between 15 and 25 mph were assumed. Traffic data for Alternate B-D and the no-build alternate have already been presented in Exhibits 5 and 6 on pages 9 and 10.
- The emission factors used in this analysis are based on the most recent (March, 1978) version of AP-42 Supplement V and derived utilizing the U.S. Environmental Protection Agency's Mobile 1 computer program. The program was modified to include the light-duty vehicle age distribution and mileage accrual specific to the project area while national default values were used for the remaining vehicle types. The assumptions used in deriving these factors are as follows:
 - The Federal Motor Vehicle Control Program will proceed as specified in the Clean Air Act Amendments of August, 1977.
 - Speeds used are those indicated in the traffic data.
 - It was assumed Inspection-Maintenance would not be in effect.
 - It was assumed that all vehicles are in the hot-stabilized mode.

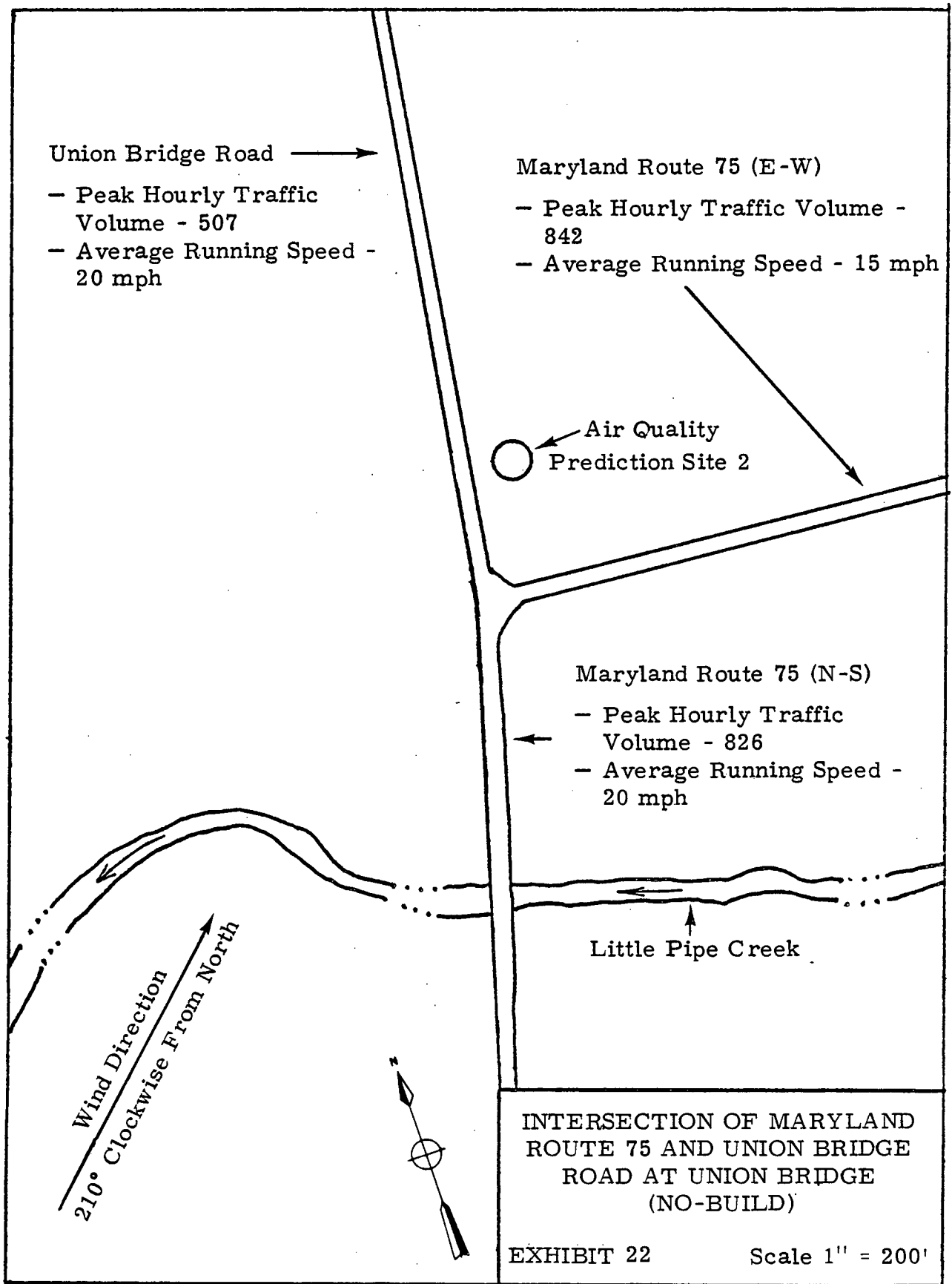
- A worst-case temperature of 0° F. was used.
- Assumptions regarding use of catalyst, control of truck emissions, and deterioration are those inherent in the Mobile 1 program.
- The EPA HIWAY Line Source Model was used to calculate pollutant concentrations.
- Worst-case meteorology of 1 meter/second wind speed and stability class F was assumed for the one-hour averaging period. Eight-hour concentrations were derived using a combination of stability class F and 1 meter/second wind speed and stability class D and 2 meter/second wind speed.
- Background carbon monoxide concentrations were assumed to be 5 ppm for a one-hour time period and 2 ppm for an eight-hour time period for all analysis years. This assumption is supported by data collected during a carbon monoxide monitoring program conducted for the State Highway Administration in November and December 1974 in Thurmont, Maryland, approximately 10 miles west of this project area.

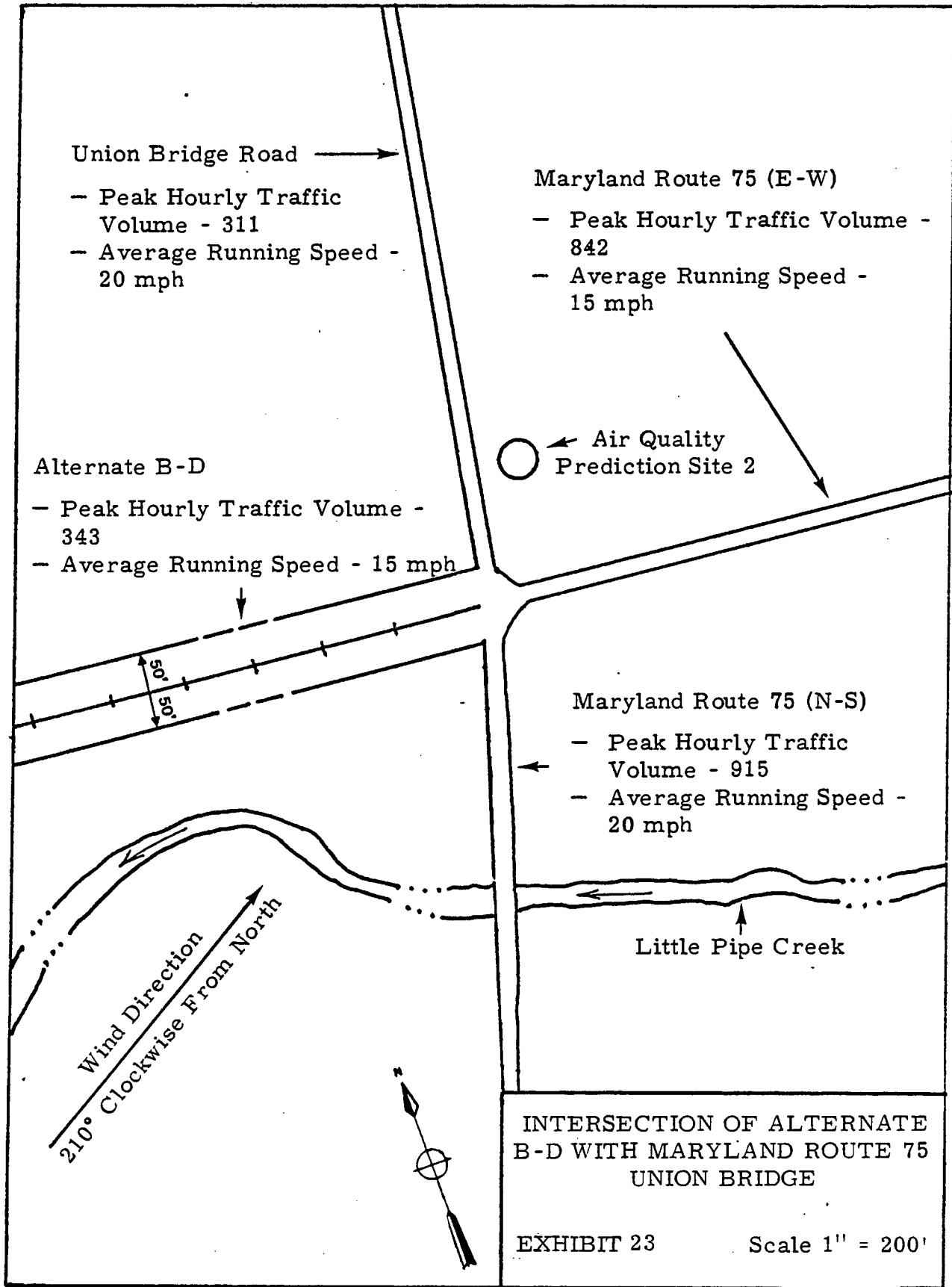
The preliminary review of projected traffic volumes for the study area indicated that the highest carbon monoxide concentrations for the project could be expected to occur in the vicinity of intersecting highways due to low running speeds of between 15 mph and 25 mph. Accordingly, two sites were selected at the particular intersections that had the highest approach volumes. Site 1 is located in the vicinity of the intersection of Maryland Route 194 and Maryland Route 77 and Site 2 is located near the intersection of Maryland Route 75 with Alternate B-D in Union Bridge. The location of these two receptors in relationship to Alternate B-D and to the highway configuration of the No-Build Alternate is presented as Exhibits 20 through 23 on pages 54 through 57. The predicted concentrations for these two sites are shown in Exhibit 24 on page 58.





INTERSECTION MARYLAND ROUTE 77 AND MARYLAND ROUTE 194 AT KEYMAR (ALTERNATE B-D)
 EXHIBIT 21 Scale 1" = 200'





Carbon Monoxide Concentrations for Alternate
B-D and the No-Build Alternate (All Concen-
trations Expressed in Parts Per Million)

		One-Hour			Eight-Hour		
		Predicted	Background	Total	Predicted	Background	Total
<u>1985</u>							
Site 1	Alternate B-D	.7	5	5.7	.4	2	2.4
Site 1	No-Build	.7	5	5.7	.4	2	2.4
Site 2	Alternate B-D	1.1	5	6.1	.6	2	2.6
Site 2	No-Build	1.2	5	6.2	.6	2	2.6
<u>2005</u>							
Site 1	Alternate B-D	.7	5	5.7	.3	2	2.3
Site 1	No-Build	.7	5	5.7	.3	2	2.3
Site 2	Alternate B-D	1.0	5	6.0	.6	2	2.6
Site 2	No-Build	1.1	5	6.1	.6	2	2.0

At the intersections, the pollution contribution of each intersecting highway was calculated separately. Several wind directions were used for each calculation. The worst-case maximum predicted concentration was a summation of the concentrations at the site from the individual highways for the wind direction which gave the highest total carbon monoxide concentration.

A review of Exhibit 24 indicates that for all conditions for both alternates there will be no violation of the national primary one-hour carbon monoxide standard of 35 ppm or the eight-hour standard of 9 ppm. The highest total one-hour concentration of carbon monoxide is estimated to be 6.2 ppm at Site 2 in 1985. The highest eight-hour concentration is 2.6 ppm at Site 2 in 2005.

The results shown in Exhibit 24 indicate that there is little difference between the No-Build Alternate and Alternate B-D for carbon monoxide concentrations at Sites 1 and 2. With or without the project, the intersection configuration and projected traffic volumes at the Maryland Route 194 and Maryland Route 77 intersection are expected to be nearly the same in the future. In the case of the intersection at Site 2, there will be a change from a three-way to a four-way intersection with the building of Alternate B-D and slight differences in projected traffic volumes between the No-Build Alternate and Alternate B-D.

At points other than the intersections, the carbon monoxide concentration would be even less than the concentrations at Sites 1 and 2 due to higher average running speeds (50 mph, Alternate B-D and 30 mph for the No-Build Alternate) and due to the fact that only one roadway is carrying traffic (as compared to two intersecting roadways each carrying traffic).

A gross emissions analysis of the two alternates was performed using these average speeds; the results are presented in Exhibit 25 on page 61. Results indicated that the total annual pollutant burden derived from Alternate B-D is less for hydrocarbons and carbon monoxide than the burden that would be produced if no construction were to occur. This is because hydrocarbon and carbon monoxide emissions increase with decreasing traffic speed. However, emissions of oxides of nitrogen are proportioned to traffic speed; thus, the nitrogen oxides burden is higher for the B-D alternate than for the No-Build Alternate.

As the subject project is located within the Metropolitan Baltimore Intrastate Air Quality Control Region (AQCR), it is necessary to evaluate three characteristics of the proposed facility when determining consistency with the State Implementation Plan: micro-scale carbon monoxide levels, construction impact, and the effect on regional vehicle-miles travelled (VMT).

The project Air Quality Analysis described above assessed the micro-scale carbon monoxide impact of the facility. This analysis determined that no violation of State or Federal Ambient Air Quality Standards for carbon monoxide will occur adjacent to the project during the completion and design years. As a result of this conclusion, the project is consistent with this aspect of the State Implementation Plan.

The consistency of the project in relation to construction activities was addressed through consultation with the Maryland Bureau of Air Quality and Noise Control. The State Highway Administration has established Specifications for Materials, Highways, Bridges, and Incidental Structures which specify procedures to be followed by contractors involved in state work. The Maryland Bureau of Air Quality and Noise Control has reviewed these Specifications and has found them consistent with the Regulations Governing the Control of Air Pollution in the State of Maryland.

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EXHIBIT 25

Pollutant Burden (Tons/Year)

Year/Selected No-Build	POLLUTANT		
	Carbon Monoxide	Hydrocarbons	Nitrogen Oxides
<u>1985</u>			
No-Build	85.0	8.1	15.0
Alternate B-D	75.0	7.0	19.3
<u>2005</u>			
No-Build	74.0	7.1	14.1
Alternate B-D	67.0	5.7	18.3

The impact of the project on regional VMT must be evaluated due to the effect the project may have on the ambient air quality of the total region and due to the fact that the Transportation Control Plan for the Baltimore Interstate AQCR contains VMT reduction measures.

The control strategies in the State Implementation Plan compensate for normal growth of area VMT, however, do not allow for the VMT increase which would accompany an additional major highway corridor. As the subject project may be regarded as minor in relationship to the regional network, it is consistent with the State Implementation Plan.

4. NOISE LEVELS

Inventory. Twenty-one (21) individual noise sensitive areas were identified for this project. Exhibit 26 on pages 63 through 65 gives a brief description of each sensitive area. The location of each of these areas relative to the proposed project is shown in Exhibit 31 on pages 79 through 81.

A field measurement program to determine ambient noise levels was conducted utilizing the latest methods for environmental noise analysis. The ambient noise measurement program was conducted on weekdays between the hours of 10:30 a.m. and 5:30 p.m. The duration of each noise level measurement was 10 minutes. Study of rush-hour conditions (4-5 p.m.) showed no discernable trend towards increased noise levels during this period. The highest L_{10} level recorded was therefore used. The results are presented in Exhibit 27 on page 66. The L_{10} noise level describes a noise level that is exceeded for 10 percent of a given time period. All ambient and predicted levels in this report are L_{10} exterior noise levels unless otherwise noted.

Description of Noise Sensitive Areas
Maryland Route 77 Extended

<u>Noise Sensitive Area</u>	<u>Description</u>
1	Holiness Evangelical Christian Church. Brick construction with access to south side of Middleburg Road and to east side of Maryland 194.
2	Three (3) single family, single-story frame residences located on south side of Middleburg Road with access to same.
3*	One (1) two-story, single family frame residence with sheds on north side of Middleburg Road with access to Middleburg Road.
4	Trucking Company two-story, single family frame and stucco house with garages on south side of Middleburg Road with access to same.
5	One (1) single family, two-story brick residence and various outbuildings and one (1) single family, two-story frame residence located on north side of Middleburg Road with access to same.
6*	One (1) single family, single-story brick rancher and one (1) two-story, single family stone farmhouse located on north side of Middleburg Road with access to same.
7	One (1) two-story frame farmhouse with outbuildings located on Y Road off south side of Middleburg Road with access to Y Road.
8*	Middleburg United Methodist Church. One frame building (not air-conditioned) located on east side of Johnsville Road with access to Johnsville Road.
9*	Town of Middleburg. Nine (9) single family residences located along south side of Middleburg Road with access points to same. Mixture of single and two-story frame dwellings.

* Denotes a sensitive area that encompasses a structure or structures having potential historic significance.

EXHIBIT 26 (Continued)

<u>Noise Sensitive Area</u>	<u>Description</u>
10*	Bowling Brook Boys Home. Three-story brick building with surrounding barns and other outbuildings located on north side of Middleburg Road with access drive to same.
11*	Five (5) single family, two-story residences located on north side of Middleburg Road with access to Middleburg Road.
12	Two (2) single family, single-story ranchers located on south side of Bucher John Road with access to same.
13	One (1) single family, two-story residence with outbuildings located on south side of Bucher John Road with access to same.
14	Six (6) two-story, single family frame residences located on Bucher John Road with access to same.
15	Four (4) single family, single-story ranchers and one (1) two-story, single family frame dwelling located on north side of Bucher John Road with access to same.
16	Four (4) single family, single-story residences located on north side of Bucher John Road with access to same.
17	One (1) two-story, single family residence with detached garage and barn, located on Main Road with access to same.
18 & 19	Two (2) single family, two-story residences located at intersection of Main Road and Bucher John Road with access to Main Road.

* Denotes a sensitive area that encompasses a structure or structures having potential historic significance.

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<u>Noise Sensitive Area</u>	<u>Description</u>
20	Wright Funeral Home. Two-story brick building located on west side of Union Bridge Road and one (1) two-story single family frame dwelling on west side of Union Bridge Road with access to same.
21	Seven (7) single-story, single family residences located on the south side of Union Bridge with access to same.

Ambient Noise Level Measurements
Maryland Route 77 Extended
(Measurement Dates: February 3 and 23, 1978)

<u>Noise Sensitive Area</u>	<u>Time of Measurement</u>	<u>Ambient L₁₀ Noise Level</u>
1	10:40 a.m.	55dBA
2	4:40 p.m.	58dBA
3	11:15 a.m.	56dBA
4	11:15 a.m.	56dBA
5	11:35 a.m.	57dBA
6	11:35 a.m.	57dBA
7	12:05 p.m.	38dBA
8	12:40 p.m.	51dBA
9	4:15 p.m.	62dBA
10	1:30 p.m.	48dBA
11	3:15 p.m.	58dBA
12	2:50 p.m.	45dBA
13	12:30 p.m.	51dBA
14	12:30 p.m.	51dBA
15	2:00 p.m.	46dBA
16	2:00 p.m.	46dBA
17	5:25 p.m.	35dBA
18	1:30 p.m.	52dBA
19	5:25 p.m.	35dBA
20	2:20 p.m.	59dBA
21	2:00 p.m.	52dBA

Impacts. In order to determine the impact on noise levels of the proposed project, an analysis was conducted to predict noise levels that would occur in the design year (2005) for both Alternate B-D and the No-Build Alternate. The method used to predict the future noise levels from the proposed improvement plus normal traffic volume increases with time was developed in the National Cooperative Highway Research Program (NCHRP) Reports #117 and #144. It considers such factors as vehicle volume, mix and speed, number of roadway lanes, road width, road surface texture and gradient, distance from the noise source, and various types of physical barriers that reduce noise transmission from source to receiver.

The determination of environmental noise impact is based on the relationship between predicted noise levels, established design noise levels and ambient noise levels in the project area. The Federal Highway Administration has established a design noise level/activity relationship (see Exhibit 28 on pages 68 and 69) published in FHPM 7.7.3. Impact assessment is also based on the increase in L_{10} noise levels over existing levels. The degree or amount of the increase is assessed according to the following criteria.

<u>L_{10} Increase Over Ambient</u>	<u>Degree of Impact</u>
Decrease over Ambient	Positive
0-5 dBA	Negligible Increase
6-10 dBA	Minor Increase
11-15 dBA	Significant Increase
Over 15 dBA	Severe Increase.

The remainder of this section presents the results of the noise impact assessment for Alternate B-D and the No-Build Alternate. Construction noise impacts and noise impacts on undeveloped lands are also discussed.

Design Noise Levels - dBA

<u>Leq (h)¹</u>	<u>L10(h)²</u>	<u>Description of Activity Category</u>
57 (Exterior)	60 (Exterior)	Tracts of land in 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. Such areas could include amphitheaters, particular parks or portions of parks, open spaces, or historic districts which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
67 (Exterior)	70 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, and parks which are not included in Category A and residences, motels, hotels, public meeting rooms, schools, churches, libraries, and hospitals.
72 (Exterior)	75 (Exterior)	Developed lands, properties or activities not included in Categories A or B above.
---	---	For requirements on undeveloped lands see paragraphs 11a and c. ³
52 (Interior)	55 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

¹Leq(h) - The equivalent steady state sound level which would contain the same acoustic energy as the time-varying sound level for a period of one hour.

²L₁₀(h) - The sound level that is exceeded 10 percent of a one hour period.

³FHPM 7.7.3, Section II

NOISE ABATEMENT MEASURES FOR LANDS WHICH ARE UNDEVELOPED ON THE DATE OF PUBLIC KNOWLEDGE OF THE PROPOSED HIGHWAY PROJECT.

- a. Noise abatement measures are not required for lands which are undeveloped on the date of public knowledge of the proposed highway project (except as provided in paragraph 11b).
- b. For lands which are undeveloped on the date of public knowledge of the highway project, the highway agency should treat the activity or land use as developed land in the following situations:
 - (1) the development was planned, designed, and programmed before the highway studies and there is firm evidence that the development has been only temporarily delayed, or
 - (2) the development is planned, designed, and programmed during the highway project planning and design; there is a very high probability of the development being constructed; and the developer has considered the noise impacts to the extent reasonable and practicable.
- c. A highway agency may request Federal-aid participation in the cost of providing noise abatement measures for undeveloped lands along Type IA and IB projects when the noise analysis demonstrates a need in the following situations:
 - (1) development occurs between the date of public knowledge of the proposed highway project and the actual construction of the project, or
 - (2) the probability of development occurring within a few years is very high and a strong case can be made in favor of providing noise abatement measures as part of the highway project based on consideration of need, expected long term benefits to the public interest, and the difficulty and increased cost of later incorporating abatement measures into either the highway or the development.

4.1 Alternate B-D

A total of twenty-one (21) noise sensitive areas were identified and studied for potential noise impacts. Resultant noise levels for the design year are presented in Exhibit 29 on pages 71 and 72. L₁₀ noise level increases would range from 0 to 23dBA, with one case where a 1 decibel decrease in noise would occur. The number of areas experiencing varied degrees of noise impact are shown below:

<u>Number of Impacted Noise Sensitive Areas</u>	<u>Noise Sensitive Area (#)</u>	<u>Degree of Increase</u>
1	10	Positive
0	--	Negligible
8	6, 8, 9, 11, 13, 14, 18, 21	Minor
6	1-3, 5, 19, 20	Significant
6	4, 7, 12, 15, 16, 17	Severe

Four (4) areas would experience noise levels that exceed the federal design noise levels. Of the four, three would experience significant increases in noise and one a severe increase in noise.

In general, projected noise levels which exceed the design noise level at four sites affected by Alternate B-D are comparable or below those which would occur with the No-Build Alternate.

Abatement measures are not feasible at any of the aforementioned areas. Access to all the roadways within the project area is uncontrolled which would limit the effectiveness of noise attenuation to 3-4 decibels.

Partial abatement measures have been considered. Traffic control action to limit or restrict truck traffic on Middleburg Road, Union Bridge Road, or extended Maryland Route 77 would not be practical as a noise abatement measure. It would only relocate noise impacts to other highways in the area. No other

Maryland Route 77 Extended
From Maryland Route 194 at Keymar to Maryland Route 75 At Union Bridge

NOISE SENSITIVE AREA	AMBIENT L ₁₀ LEVEL	DESIGN YEAR L ₁₀ LEVEL	
		No-Build Alternate	Alternate B-D
1	55dBA	71dBA**	70dBA
2	58dBA	77dBA**	70dBA
3*	56dBA	70dBA	71dBA**
4	56dBA	70dBA	72dBA**
5	57dBA	77dBA**	72dBA**
6*	57dBA	77dBA**	67dBA
7	38dBA	---	55dBA
8*	51dBA	67dBA	60dBA
9*	62dBA	78dBA**	67dBA
10*	48dBA	59dBA	47dBA
11*	58dBA	77dBA**	68dBA
12	45dBA	52dBA	67dBA
13	51dBA	62dBA	59dBA
14	51dBA	65dBA	57dBA
15	46dBA	57dBA	65dBA

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EXHIBIT 29
Project Noise Levels

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*Area encompasses some structure(s) with potential historic significance.
**Design noise level violation

Maryland Route 77 Extended

NOISE SENSITIVE AREA	AMBIENT L ₁₀ LEVEL	DESIGN YEAR L ₁₀ LEVEL	
		No-Build Alternate	Alternate B-D
16	46dBA	57dBA	62dBA
17	35dBA	54dBA	58dBA
18	52dBA	64dBA	60dBA
19	35dBA	52dBA	64dBA
20	59dBA	76dBA**	73dBA**
21	52dBA	70dBA	58dBA

**Design Noise Level Exceeded.

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major routes exist between Keymar (Maryland Routes 77 and 194) and Union Bridge (Maryland Route 75) to which truck traffic could be diverted.

Landscape plantings would be ineffective for actual noise attenuation, but could serve as a visual barrier. With Alternate B-D, landscape plantings would not be possible due to the fact that this is proposed as an uncontrolled access highway and protection of material from future destruction by new access points could not be guaranteed.

Since the proposed extension of Maryland Route 77 will be based upon no control of access for the entire facilities, exceptions to design noise levels will not be requested. FHPM 7.7.3 does not require processing of exception requests for uncontrolled access highways. This is in recognition of the fact that numerous existing and future access points to the roadway would all but eliminate abatement possibilities.

4.2 No-Build Alternate

Twenty (20) noise sensitive areas along the various existing roadways within the project corridor were studied for potential future noise impacts in the event that the extension of Maryland Route 77 is not undertaken. Resultant noise levels for the design year are presented in Exhibit 29 on pages 71 and 72. Noise level increases by the design year will range from 0 to 21 dBA over present conditions. The number of noise sensitive areas experiencing varied degrees of impact are listed as follows:

<u>Number of Impacted Noise Sensitive Areas</u>	<u>Noise Sensitive Area (#)</u>	<u>Degree of Increase</u>
0	--	Positive
1	19	Negligible
1	12	Minor
8	3, 4, 10, 13-16, 18	Significant
10	1, 2, 5, 6, 8, 9, 11, 17, 20, 21	Severe

Seven (7) areas would experience L_{10} noise levels in excess of design levels by the design year. These areas include a church, three sites with places of potential historic significance and three solely residential sites. All of these sensitive areas would experience severe increases in noise.

Abatement measures would not be considered under the No-Build Alternate, since no construction would occur.

4.3 Construction Noise Impacts

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

- Bulldozers and Earthmovers
- Graders
- Frontend Loaders
- Dump and Other Heavy Trucks
- Compressors.

It is probable that construction activity will not occur after 5:00 p.m. or before 7:00 a.m. on weekdays, and will likely be limited to weekdays only. Therefore, the critical time during which evening outdoor recreation and nocturnal rest periods occur, construction noise will not be present. Limiting construction activity to non-critical time periods will minimize noise impact on surrounding areas.

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

4.4 Impacts on Undeveloped Land

There are tracts of land within the project corridor which are currently undeveloped and under agricultural use. Some areas are wooded but the majority of the land is open with scattered mature trees.

Noise impacts on these lands were investigated for the No-Build Alternate and Alternate B-D. Exhibit 30 on pages 76 through 78 and Exhibit 31 on pages 79 through 81 show graphically the extent of noise impact zones expected by the design year for the No-Build Alternate and Alternate B-D, respectively. The Maryland State Highway Administration does not plan any noise control measures at these areas. Control of land development would better facilitate a more compatible situation.

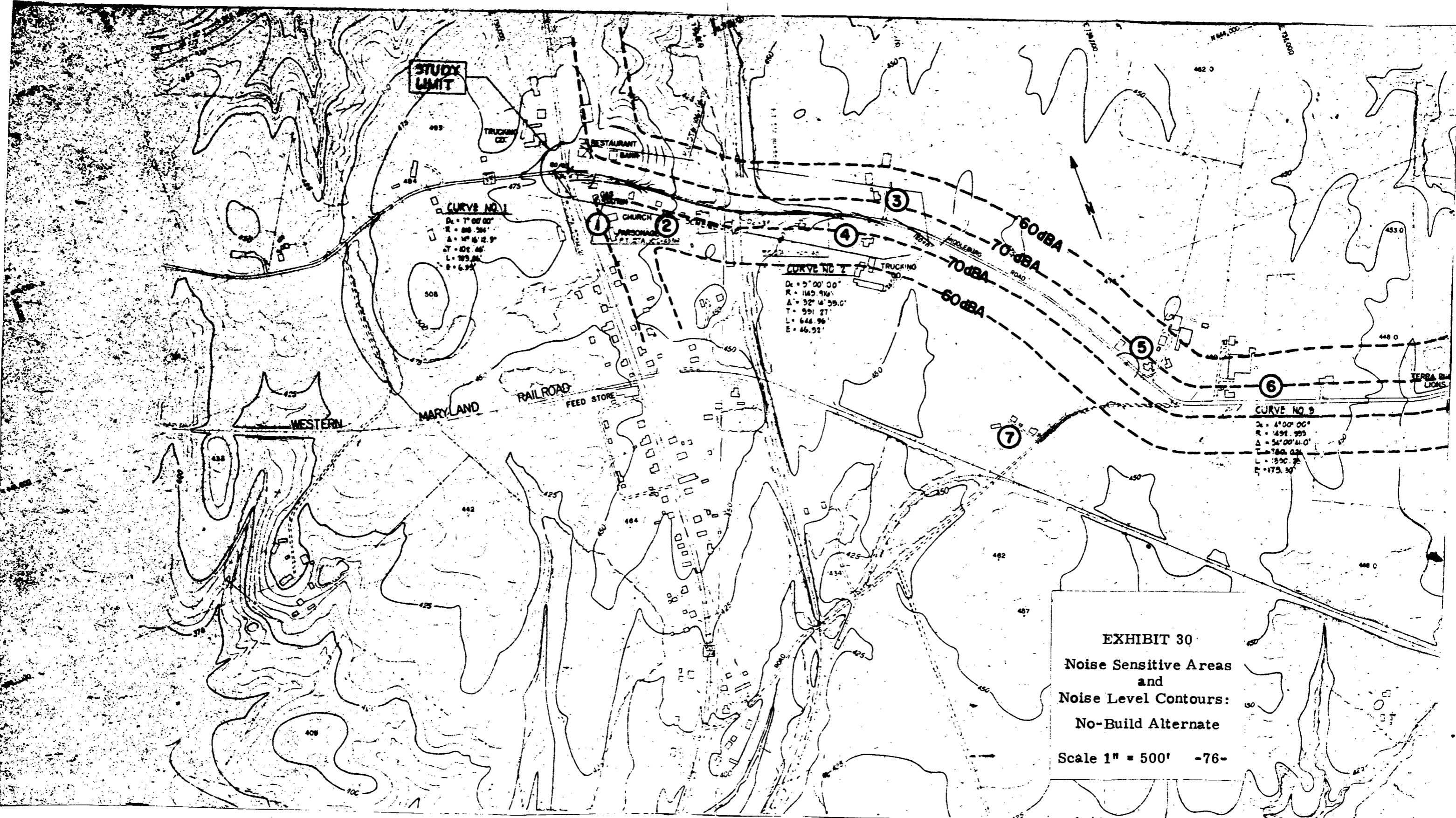


EXHIBIT 30
 Noise Sensitive Areas
 and
 Noise Level Contours:
 No-Build Alternate
 Scale 1" = 500' -76-

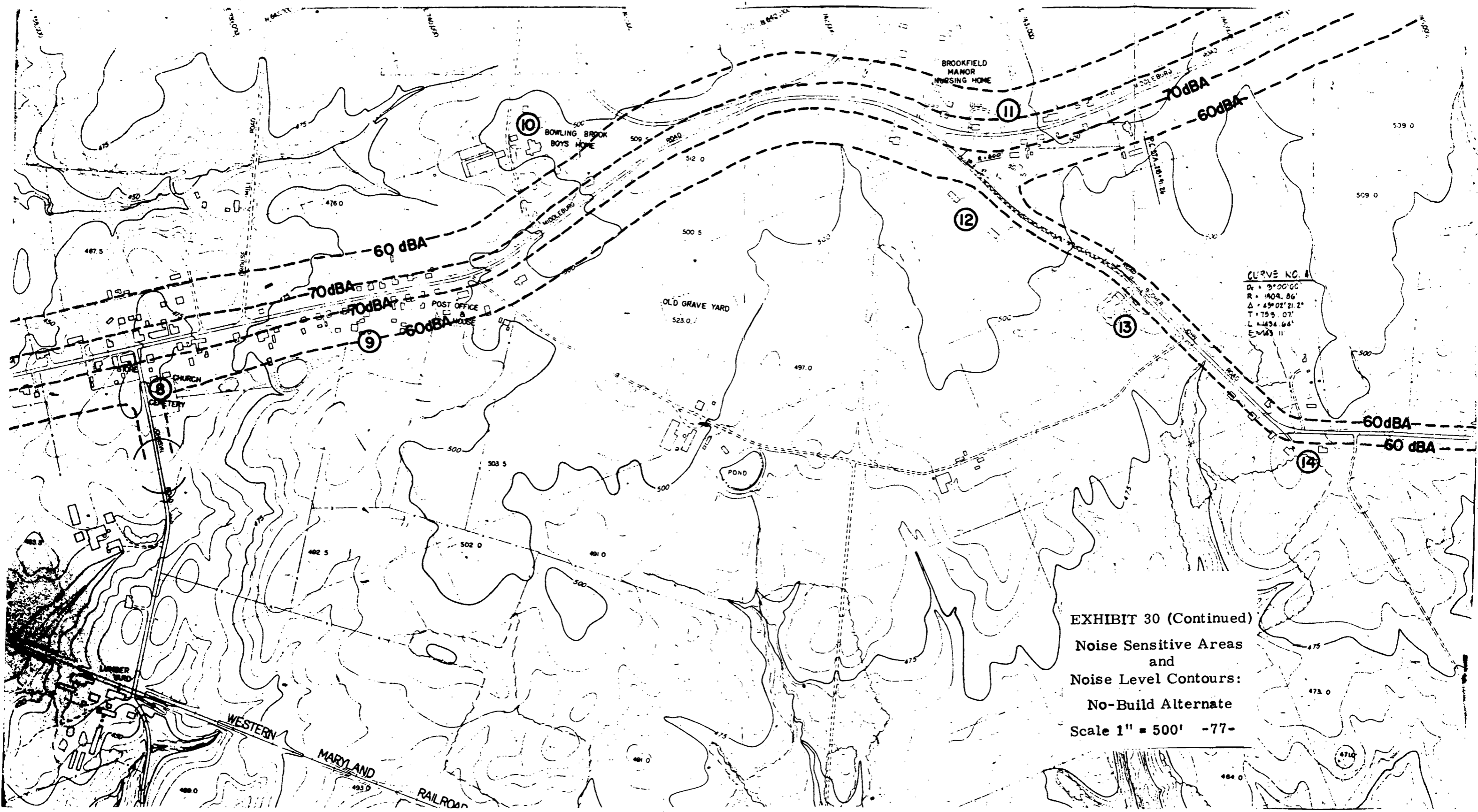


EXHIBIT 30 (Continued)
 Noise Sensitive Areas
 and
 Noise Level Contours:
 No-Build Alternate
 Scale 1" = 500' -77-

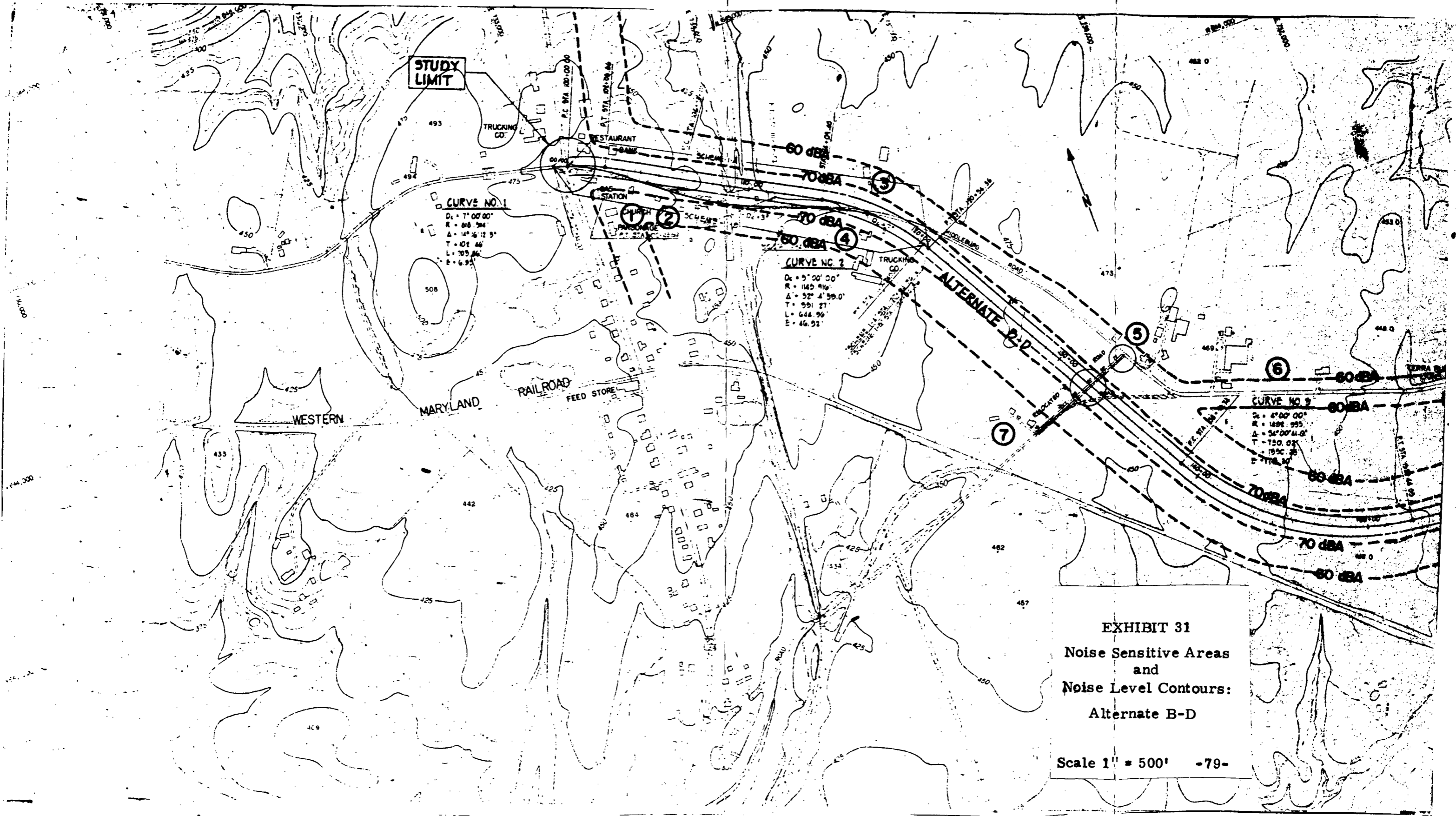
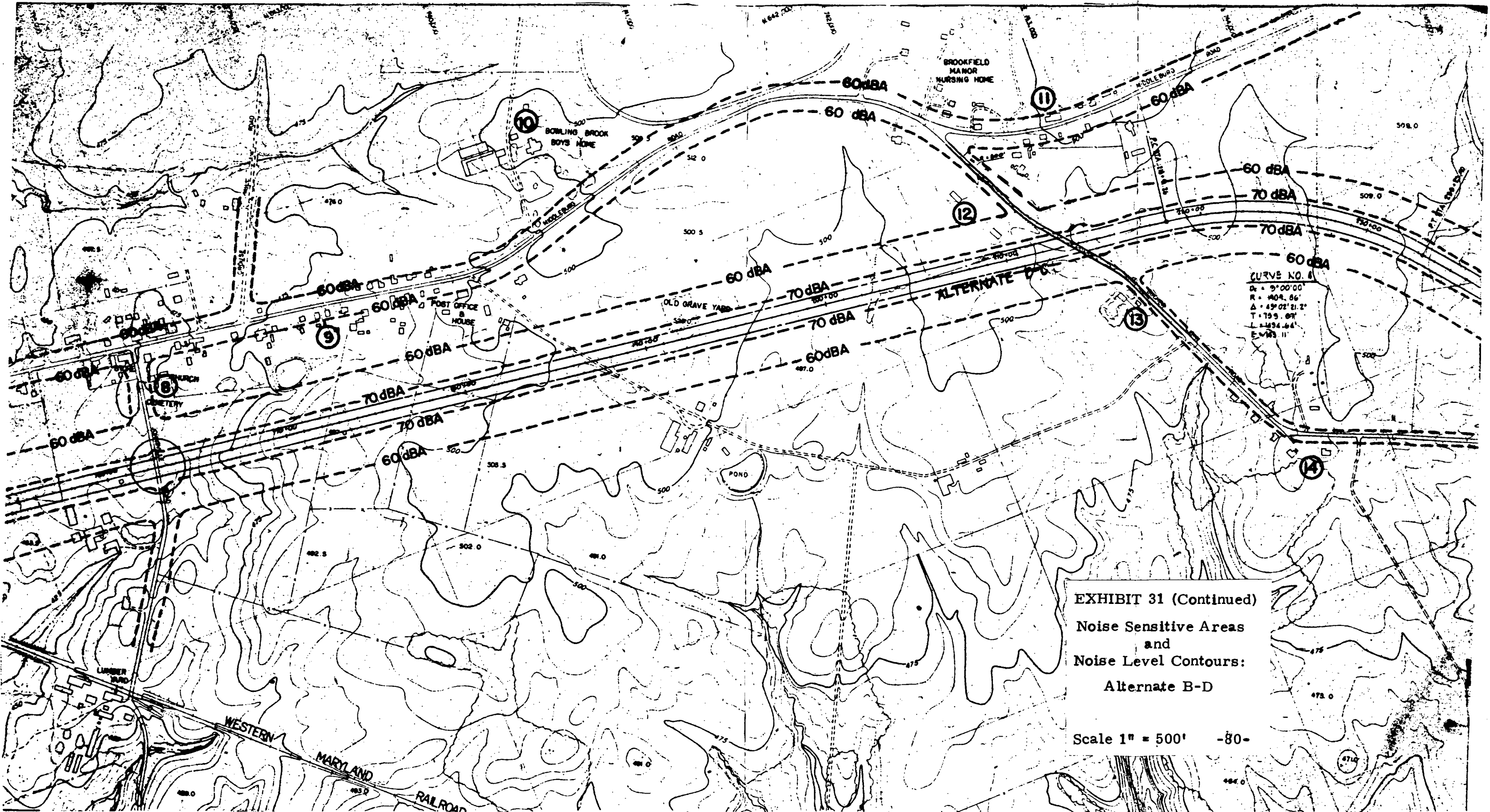


EXHIBIT 31
 Noise Sensitive Areas
 and
 Noise Level Contours:
 Alternate B-D
 Scale 1" = 500' -79-



CURVE NO. 1
 Δ = 9°00'00"
 R = 404.86'
 Δ = 49°02'21.2"
 T = 199.67'
 L = 1334.64'
 E = 123.11'

EXHIBIT 31 (Continued)
 Noise Sensitive Areas
 and
 Noise Level Contours:
 Alternate B-D

Scale 1" = 500' -80-

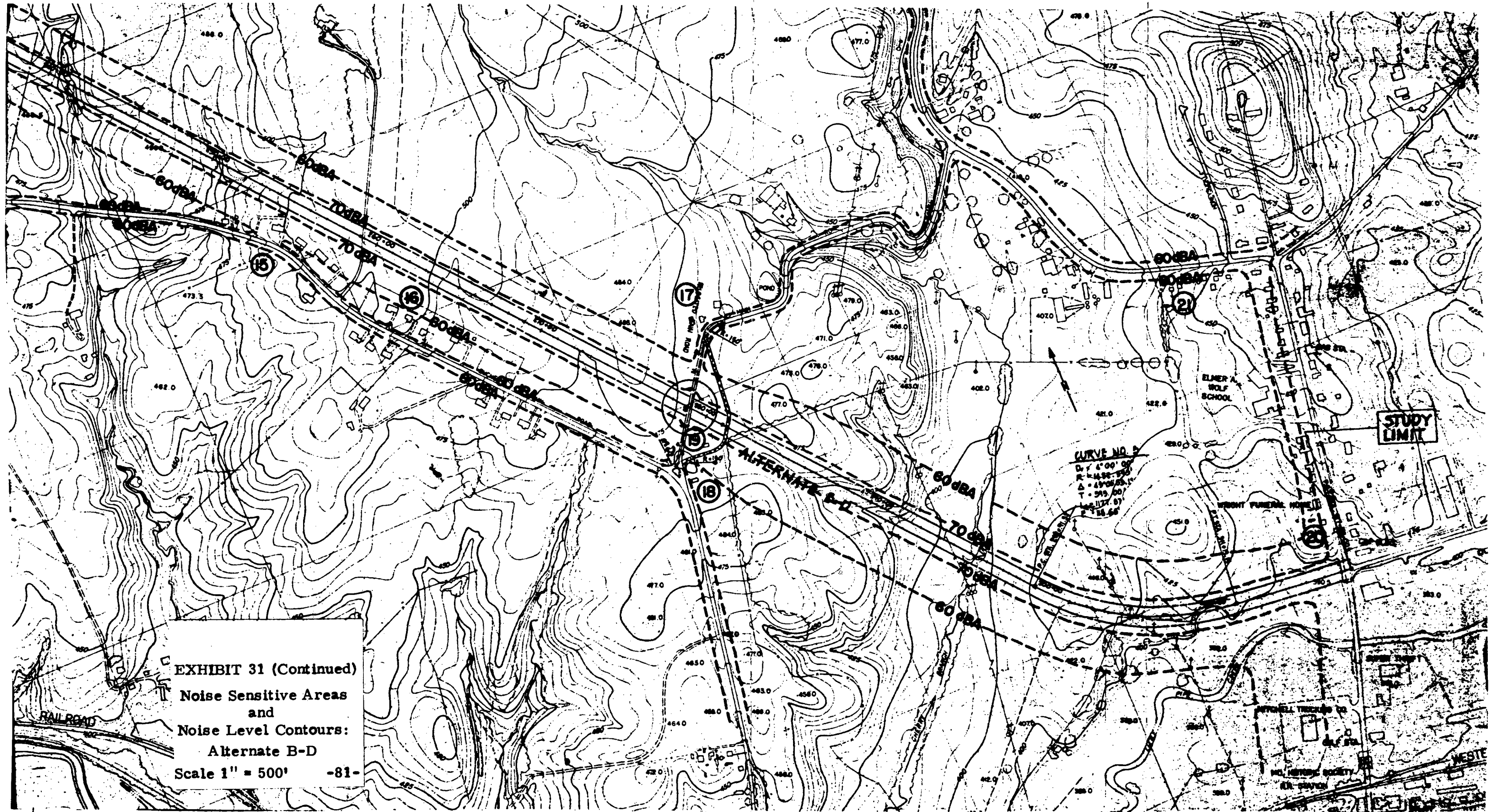


EXHIBIT 31 (Continued)
 Noise Sensitive Areas
 and
 Noise Level Contours:
 Alternate B-D
 Scale 1" = 500' -81-

5. CULTURAL RESOURCES

5.1 Historical Sites

Inventory. The Maryland Historical Trust identified 27 sites within the project area as having historic significance. The Trust indicated that 20 of these sites were possibly eligible for inclusion on the National Register of Historic Places either individually or as comprising one or more historic districts. Subsequent to this initial determination, two of the twenty sites were eliminated from National Register consideration. Correspondence from The Maryland Historical Trust is included in Appendix B. Locations of the historic sites are shown in Exhibits 32 and 33 on pages 83 and 84.

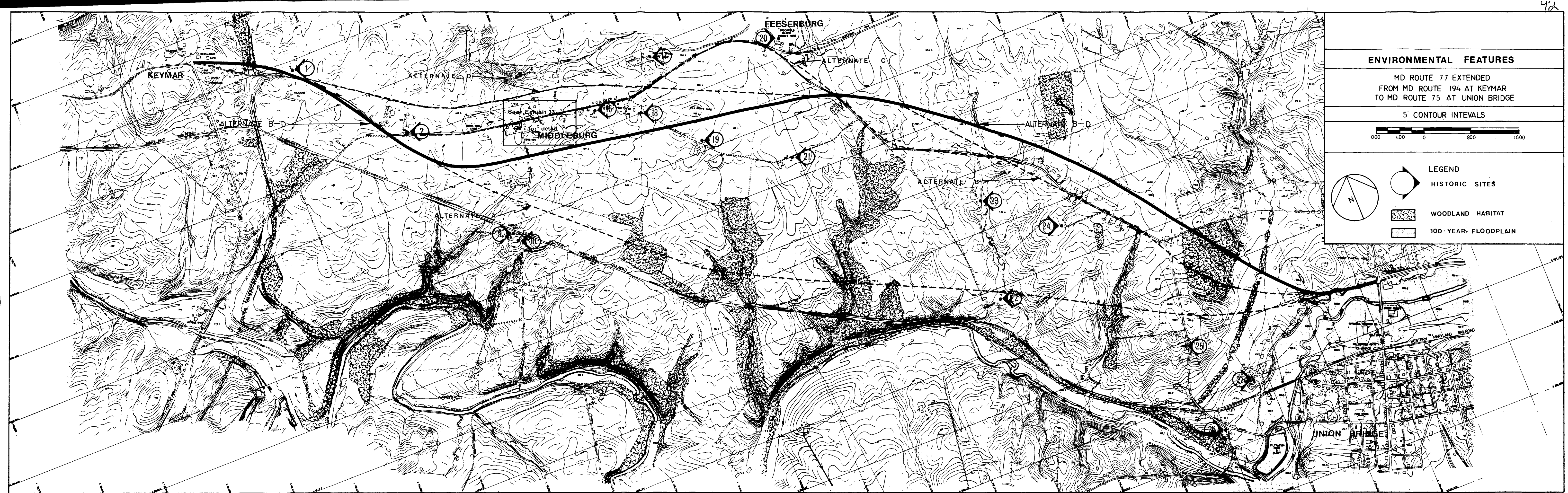
Each of the sites is identified below.

● Site 1 — Bruckey House

This house is located on the north side of Middleburg Road approximately 750 feet east of the Penn Central Railroad - Middleburg Road Crossing. It is a rectangular shaped two-story frame structure with gable roof, constructed in the latter half of the 19th Century. Extensive alterations to the house have, however, diminished its historical character. Of the outbuildings, the barn is especially well-maintained and is a good example of a form of decoration common to the area. The associated property is a 114 acre privately-owned farm, typical of the area. The house is of local historic significance, and not considered eligible for the National Register.

● Site 2 — A Farmhouse

Site 2 is another farmhouse located on the north side of Middleburg Road approximately 300 feet east of the intersection with "Y" Road. It is situated on an 81-acre farm and is of local historical significance. The Maryland Historic Trust has indicated that this site may also be eligible for inclusion on the National Register of Historic Places.



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ENVIRONMENTAL FEATURES

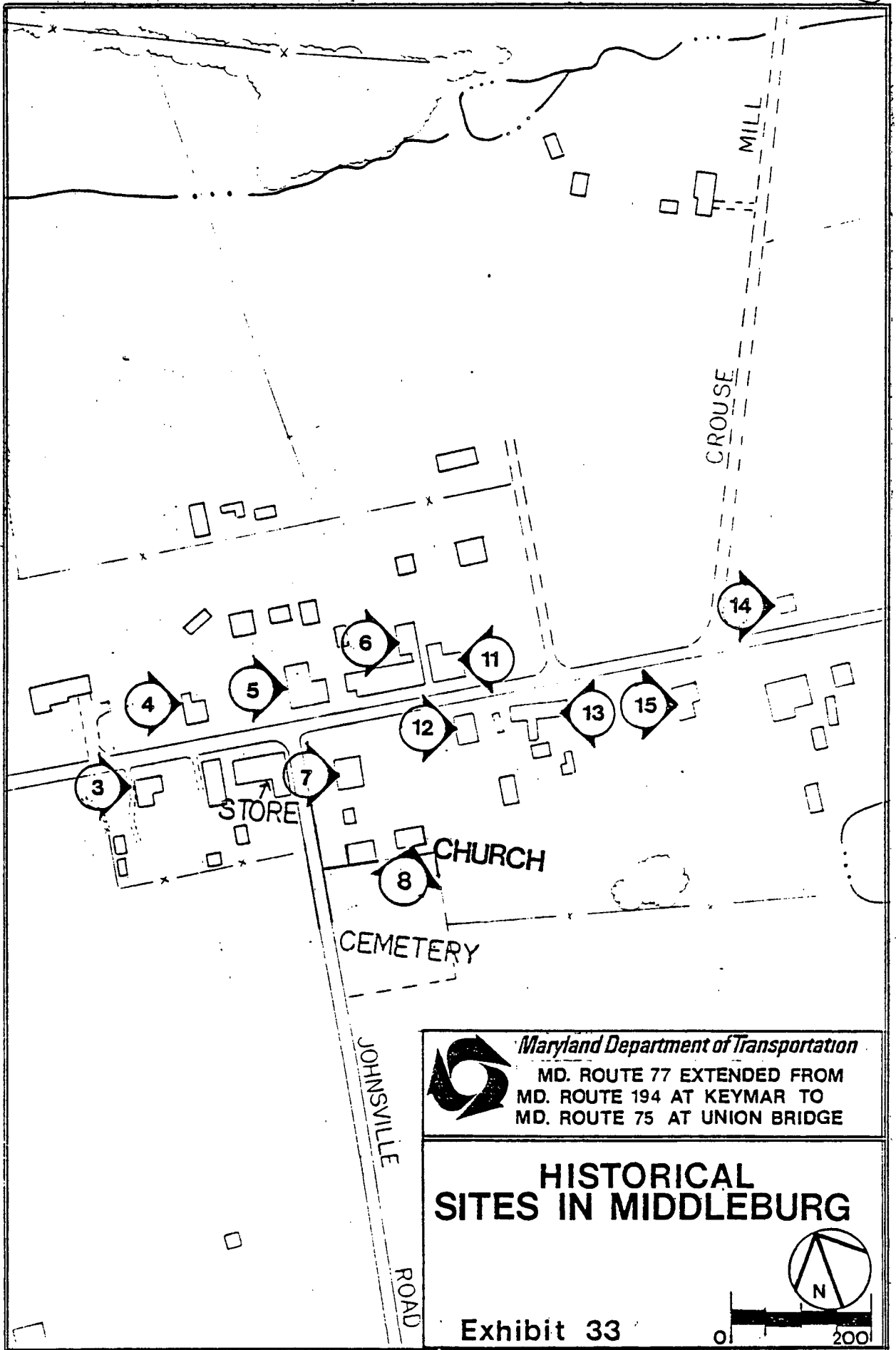
MD ROUTE 77 EXTENDED
FROM MD ROUTE 194 AT KEYMAR
TO MD ROUTE 75 AT UNION BRIDGE

5' CONTOUR INTERVALS

800 400 0 800 1600

LEGEND

- HISTORIC SITES
- WOODLAND HABITAT
- 100-YEAR FLOODPLAIN



- Site 3—A Brick House

This American-bond brick house is located on the south side of Middleburg Road, approximately 200 feet west of the intersection with Johnsville Road. It is situated on a 0.17-acre lot which is in private ownership. Abutting properties to the south and west are farms, to the east is Middleburg. The Maryland Historical Trust has indicated that this house and 13 other structures in Middleburg could be formed into a historic district that would possibly be eligible for inclusion on the National Register of Historic Places.

- Site 4—A Fieldstone House

Site 4 is a fieldstone and mortar house with one chimney and side and front porches. It is located on approximately one acre of privately-owned land on the north side of Middleburg Road, 90 feet to the west of the Johnsville intersection. The house is of local historic significance and would be one of the 14 structures considered for inclusion in the old Middleburg historic district.

- Site 5—A Fieldstone House

The original house is of fieldstone and mortar to which a brick addition has been attached. The site is located on a 16.5 acre parcel of land situated on the north side of Middleburg Road at its junction with Johnsville Road. The house is of local historic significance and surrounding structures would be part of a Middleburg historic district.

- Site 6—Two Attached Homes

These two attached homes are located 150 feet to the east of the intersection of Middleburg and Johnsville Roads on the north side of Middleburg Road. The western section is constructed of red brick in Flemish bond with decorative cornice molding under the roof while the eastern portion is covered in formstone. Both homes would be included in the possible Middleburg historic district.

● Site 7—A White Block House

Site 7 is a white block house located at the southeastern corner of the intersection of Middleburg and Johnsville Roads. It is situated on approximately 68 acres of privately-owned land. The architecture of the house, with its cornices under the eaves and above windows and its full rear covered porch, is unique in the area. This structure would also be included in the possible historic district discussed above.

● Site 8—Middleburg United Methodist Church

This church, founded in 1850, is located just to the south of Site 7. Primary access is by way of Johnsville Road. It would also be part of the possible historic district.

● Site 9—Donald Six Lumber Yard

Located on Johnsville Road, directly south of Western Maryland Railroad tracks. This large wooden frame warehouse and processing area on 6.6 acres of land are of local historic significance. The surrounding area is farm land.

● Site 10—A Wooden Frame House

Located at the intersection of Johnsville Road and Simpson Mill Road, this wooden frame house is on the same parcel as the Donald Six Lumber Yard noted above. The Maryland Historic Trust has indicated that this site and Site 9 might be combined to form a second historic district in the area.

● Site 11—A Brick House

This detached brick house on a .25 acre lot is located on the north side of Middleburg Road approximately 400 feet west of the intersection of Middleburg and Crouse Mill Roads. Originally "L" shaped, the house is now "T" shaped due to an addition. The house is of local historic significance and would be included in a Middleburg historic district, if one was formed.

- Site 12—A Double-Doored Brick House

Across from Site 11, this Flemish bond style brick house is on the south side of Middleburg Road, approximately 400 feet west of the intersection of Middleburg and Crouse Mill Roads. It would be included in the Middleburg historic district already discussed.

- Site 13—A Stucco Home

Site 13 is a large stucco residence on approximately one acre of land located on the south side of Middleburg Road, 200 feet to the west of the intersection of Middleburg and Crouse Mill Roads. This structure would also be included in a possible Middleburg historic district.

- Site 14—A Wooden Frame House

Site 14 is a wooden frame house located on the northeastern corner of the Middleburg Road-Crouse Mill Road intersection on the same 264 acre parcel as the Bowling Brook Boys Home. This structure is distinguished by its roof which peaks in the center on all four sides. This house would be included in a possible Middleburg historic district.

- Site 15—A Brick House

This double-doored, American bond house situated on approximately .45 acres of privately-owned land is located on the southern side of the Crouse Mill Road-Middleburg Road intersection. As like the previously mentioned sites, it too would be part of a possible Middleburg historic district.

- Site 16—A White Block House

The distinguishing features of this white block house are its full length front windows and covered two-story porch. It is located on a 10 acre parcel of land on the south side of Middleburg Road, 650 feet east of the Middleburg Road-Crouse Mill Road intersection. This house would be included in a Middleburg historic district, if one is established.

● Site 17—Bowling Brook Boys Home

This site, a large rambling white house, is recorded as Site Number CL-9 on the county index of historic places. It is located on 263 acres of land, owned by a private foundation, on the north side of Middleburg Road, east of Crouse Mill Road. The Maryland Historic Trust has indicated that this site would probably be eligible for inclusion on the National Register of Historic Places.

● Site 18—An "L" Shaped Brick House

This privately-owned residence is a double-doored "L" shaped brick structure situated on 11.6 acres of land at the eastern edge of Middleburg. The surrounding area is primarily agricultural lands. Access is provided by a one-lane dirt road which connects with Middleburg Road approximately 300 feet to the north (near the post office). The house is of local historic significance.

● Site 19—Cedar Knoll Farmhouse

Cedar Knoll Farmhouse, consisting of 174 acres, is located on the same dirt road as Site 18. The farmhouse sits on the northeastern side of the dirt road, 1,450 feet from the intersection of the dirt road and Middleburg Road. The house, believed to date to the 1830's, is a two-story frame structure in rectangular shape with a gable roof. A two-story frame addition with flat roof extends the length of the house at the rear. Lengthy oblong 2/1 sash with eared pediment lentils evenly spaced on the front and side facades are a notable feature of the structure. The roof line has a simple box cornice with returns. Several barns and sheds of unknown periods are located adjacent to the house. Also located on the farm is an old graveyard. Surrounding land uses are agricultural.

The modest but elegant farmhouse grouped with its out-buildings, former tenant house (not gutted) and family cemetery is significant as an early family farm which has survived in an age when such are rapidly disappearing. The farmhouse is of local historic significance.

● Site 20—Brookfield Manor Nursing Home

Located north of the intersection of Middleburg and Bucher John Roads, the Brookfield Manor Nursing Home is a complicated white structure with rounded outside corners and an impressive front entrance. The Maryland Historic Trust has indicated that this structure would be eligible for inclusion on the National Register of Historic Places.

● Site 21—A Small Frame Farmhouse

This small frame farmhouse, situated on 129 acres,^{*} is located on the same dirt road as noted in description of Sites 18 and 19. It is approximately 1,350 feet from the eastern terminus of this road at Bucher John Road. Probably constructed during the early 1900's and presently in rundown condition. This structure is of local historic significance. Surrounding properties are in agricultural use.

● Site 22—A White Frame House

Site 22 is a small white frame house located off of a dirt road approximately 3,200 feet south of Bucher John Road and 500 feet north of the Western Maryland Railroad tracks. Refer to Exhibit 32 for the exact location. It is part of a 124 acre farm. This structure is of local historic significance.

● Site 23—A Green Block House

This green block house is part of a cluster of buildings located on 69 acres of land, approximately 750 feet south of Bucher John Road (refer to Exhibit 26). It has a cruciform plan outlining a gothic window, with curved cornices over all windows. The Maryland Historic Trust indicates that it may possibly be eligible for inclusion on the National Register of Historic Places noting that it "... is a good example of a simple, small, Gothic Revival cottage." The surrounding area is in agricultural use.

● Site 24—Pumpkin Hill Farm Farmhouse

This farmhouse is located on a dirt road, 700 feet south of Bucher John Road (refer to Exhibit 32), on 30 acres of land. The structure with its first and second floor covered porches is of local architectural significance.

* The boundaries of the historic site are coterminus with the structure itself. (See Appendix B(13)).

● Site 25—A Brick House

Located on the western side of Locust Street, approximately 1,200 feet north of the Western Maryland Railroad crossing, this narrow brick house with its covered front porch, small square attic windows, and center chimney is of local historic significance.

● Site 26—A Brick House

A large brick house on the southwestern corner of Locust Street and Good Intent Road, this structure with its full length front windows and two entrances from the front porch was probably built during the early to mid-19th Century. It is of local historic significance.

● Site 27—Mt. Pleasant Farm

The Mt. Pleasant Farm is located at the western edge of Union Bridge along the town line. It is further bounded on the south by Locust Lane and on the west by Bucher John Road. Of principal interest is the farmhouse built in 1790 of brick imported from England laid in Flemish bond. The two and one-half story structure is representative of the federal style. It is five bays in length at the principal facade with a dormered gable roof and two external chimneys at each end. The front door and window over it are palladian. At one end of the house is a two-story brick wing with a covered porch in front of each story. The house is of possible county architectural value.

Principal access to the house is by way of Locust Street, 800 feet to the south. Railroad tracks belonging to the Western Maryland Railroad pass within 200 feet of the house in an east-west direction. Also, an overhead power transmission line passes 450 feet east of the house in a north to south direction. The 145 acres associated with this historic site are used for agricultural purposes.

Alternate B-D will require right-of-way from property associated with Sites 19 and 27. In compliance with Section 4(f)

requirements*, a Section 4(f) Statement has been prepared and appears as Chapter V of this document.

Of the above two historic sites, only Site 27 may be eligible for inclusion on the National Register. In accordance with Section 106 procedures**, the State Historic Preservation Officer has determined that Alternate B-D will have no effect on the historical integrity of Site 27. Since there will be no effect on any sites eligible for the Register, all Section 106 requirements have been completed.

Since the preparation of the Draft Negative Declaration/4(f) the Maryland Historic Trust completed another survey of the project area. As a result of that survey the boundaries for the Brucky farm (site 1) have been re-established. The recommended alternate will not require any property taking from the property associated with the history site. The site does not meet the eligibility requirements for inclusion on the National Register of Historic Places. See the correspondence from the Maryland Historical Trust on Appendix B dated February 9, 1979 and June 26, 1979.

5.2 Archeological Sites

Inventory. An archeologic reconnaissance survey*** conducted in the project area revealed the presence of scattered prehistoric activities within and adjacent to right-of-way limits of Alternate B-D.

* 49 U.S.C. 1653(f), also known as Section 4(f) of the Department of Transportation Act of 1966, P.L. 89-670.

** 36 CFR Part 800, Procedures for the Protection of Historic and Cultural Properties.

*** William M. Gardner, R. Michael Stewart, An Archaeological Reconnaissance of Maryland Route 77 Extended: From Maryland Route 194 at Keymar to Maryland Route 75 at Union Bridge, Maryland. (Front Royal: Thunderbird Research Corporation (1977)).

Prehistoric remains that were found include small rhyolite flakes and chunks, a portion of a rhyolite biface, a small stemmed quartz point, and a Stanely-like projectile point (Middle Archaic).

Impacts. The nature and disposition of the prehistoric and historic sites and finds within the project area and right-of-way for Alternate B-D are not considered significant by archeologists conducting the reconnaissance survey. This opinion was concurred in by the State Historic Preservation Officer and the State Archeologist. Therefore, further archeological research along the proposed alignment is not recommended. Should any significant site be uncovered during construction, applicable Federal Regulations will be followed.

At the request of the State Archeologist, the location of prehistoric sites discussed above have not been included in this report. However, maps denoting locations of prehistoric activity investigated during the reconnaissance survey are included in the archeologist's report cited here.

V. SECTION 4(f) STATEMENT

1. INTRODUCTION

As described in Section 5.3 of this chapter, the selected alternate will require a right-of-way taking from two sites having historic significance. Section 4(f) of the Department of Transportation Act of 1966 requires that particular attention be given to and documentation prepared for those historic properties which would be required by a proposed highway improvement. Specifically, the lack of prudent and feasible alternatives must be documented, as well as all possible planning to minimize harm.

Accordingly, a 4(f) Statement is included as part of the Final Negative Declaration.

2. PROJECT DESCRIPTION

The project under study is the extension of Maryland Route 77 from Maryland Route 194 at Keymar to Maryland Route 75 at Union Bridge, a distance of approximately 4.0 miles (Exhibit 2, page 3). As proposed, this extension would be a two-lane rural highway with uncontrolled access having 12 foot travel lanes, 10-foot shoulders, safety grading and drainage facilities within a minimum right-of-way width of 100 feet. The typical section as described above is shown in Exhibit 4, page 8. The proposed project would:

- Provide a final link in a continuous east-west system of state highways through Carroll County.

- Improve the poor accessibility of the Union Bridge area by providing a safer, more direct route from the west.
- Provide an alternate route for heavy truck traffic using local roads and thus reduce noise and air pollution now suffered by local residents.

Alternate B-D, shown in Exhibit 36 on page 95, requires property from three sites identified as having historic significance. No other potential 4(f) lands, including publicly-owned parks, recreation areas, or wildlife and waterfowl refuges, were noted.

3. LOCATION AND DESCRIPTION OF 4(f) INVOLVEMENT

The Maryland Historical Trust conducted an historical inventory during the preparation of the Interim Alternatives Report. Twenty-seven sites, including one possible district, were identified as historic resources. Several of these sites may be considered eligible for inclusion on the National Register of Historic Places. Locations of all historic sites within the project corridor are shown in Exhibits 32 and 33, on pages 83 and 84.




Alternate B-D would require property from two of the sites identified as being historically significant. One of these sites (Site 19), has been determined by the State Historic Preservation Officer to be ineligible for inclusion on the Register (see correspondence from the Maryland Historical Trust in Appendix B). The two sites are Cedar Knoll Farmhouse (Site 19) and Mt. Pleasant Farm (Site 27).

Brief descriptions of these sites are provided on the following page.

MD. ROUTE 77 EXTENDED FROM MD. ROUTE 194
AT KEYMAR TO MD. ROUTE 75 AT UNION BRIDGE
Contract No. CL 486-7-71

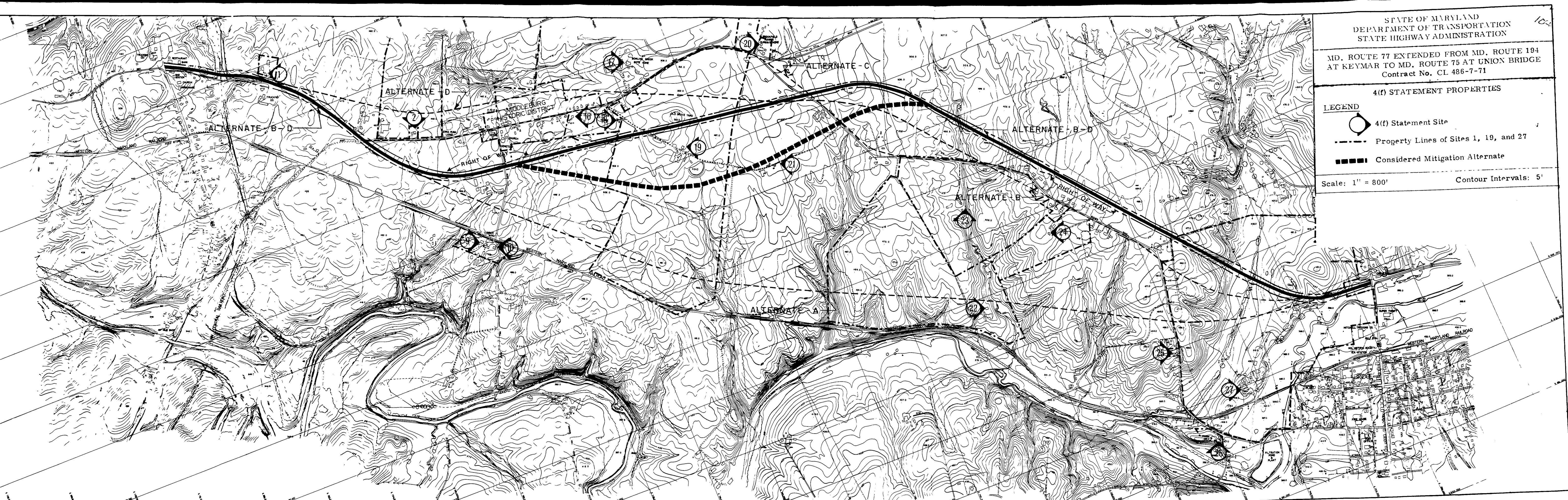
4(f) STATEMENT PROPERTIES

LEGEND

-  4(f) Statement Site
-  Property Lines of Sites 1, 19, and 27
-  Considered Mitigation Alternate

Scale: 1" = 800'

Contour Intervals: 5'



105

● Site 19—Cedar Knoll Farmhouse

Cedar Knoll Farmhouse is located approximately 12,000 feet south of Middleburg Road and approximately 3,000 feet east of Johnsville Road. The house, believed to date to the 1830's, is a two-story frame structure in rectangular shape with a gable roof. A two-story frame addition with flat roof extends the length of the house at the rear. Several barns and sheds are located adjacent to the house. Also located on the farm is an old graveyard. The associated 174 acres are used for agricultural purposes. The farmhouse and cemetery are of local historic significance, and not considered eligible for the National Register.

● Site 27—Mt. Pleasant Farm

The Mt. Pleasant Farm is located at the western edge of Union Bridge along the town line. It is further bounded on the south by Locust Lane and on the west by Bucher John Road. Of principal interest is the farmhouse built in 1790 of brick imported from England laid in Flemish bond. The two and one-half story structure is representative of the federal style. It is five bays in length at the principal facade with a dormered gable roof and two external chimneys at each end. The front door and window over it are palladian. At one end of the house is a two-story brick wing with a covered porch in front of each story. The house may be eligible for inclusion on the National Register of Historic Places. The associated property, 175 acres, is used for agricultural purposes.

4. AREA AFFECTED

The right-of-way requirements of Alternate B-D will affect each of the two sites as follows:

- Site 19—Cedar Knoll Farmhouse

Alternate B-D would pass along the southern edge of the graveyard and thus stay 350 feet north of the farmhouse, minimizing impacts upon the structure and its inhabitants. A strip of land, approximately 2,000 feet long and 130 feet wide would be required for right-of-way, resulting in a loss of 4.7 acres from this 174 acre farm. No part of the graveyard would be acquired. The existing dirt drive from Middleburg Road to the house would be crossed by the proposed alignments; but because there is no control of access, this drive would be retained as manner of entry.

- Site 27—Mt. Pleasant Farmhouse

As shown in Exhibit 37, Alternate B-D would pass 1,700 feet to the north and east of this farmhouse. Right-of-way requirements for this alignment occur for a length of approximately 3,400 feet, for a loss of approximately 7 acres from this 145 acre farm. Access to the farmhouse and farm would not be affected.

Alternate B-D will not require the removal of any historical structures. The property that will be taken from each site, 4.7 acres from Site 19 and 7 acres from Site 7, is minimal in terms of the total acreage of each site.

In the case of Site 19, the selected alternate will be approximately 1,100 feet closer to the farmhouse than the existing roadway (350 feet as opposed to 1,450 feet). Noise levels* in the vicinity of the farmhouse in the design year 2005 can be expected to increase from an existing ambient level of 40 dBA to a projected level of 59 dBA. While this is a significant increase, it is within suggested Federal design noise limits.** Although there will be a closer view of Alternate B-D than of the existing roadway from Site 19, the rolling topography of the area and the construction of the roadway in a cut will reduce its visual presence. Due to the substantial distance of Alternate B-D (170 feet) from Site 27, there will be no noise impact on this site. In addition, the roadway will be blocked from view by the heavily wooded landscape and hills in the vicinity of the farmhouse.

* All values are in terms of L_{10} .

** FHWA Federal Aid Highway Program Manual, Volume 7, Chapter 7, Section 3, Subsection 8, "Design Noise Levels," July 28, 1974.

5. ALTERNATIVES TO THE PROPOSED ACTION

During the first stage of project planning, four alternate alignments (A, B, C, and D) and the No-Build Alternative were considered. Each of the alternates (Exhibit 8, page 12), were subjected to preliminary engineering and environmental studies discussed in the Interim Alternates Report. Based upon these studies and the input of citizen and local governments, Alternate B-D (a combination of Alternates B and D) and the No-Build Alternate were selected for further study.

As a result of the above studies, and further traffic analysis, Alternate B-D was chosen as the recommended alternate. In terms of safety, construction of Alternate B-D would result in lowering the corridor accident rate by one-third.

Alternate B-D would also be the most effective in diverting traffic from the present county road system, thus reducing heavy truck traffic through built-up areas of Middleburg and Feeserburg. It is estimated that total projected traffic volumes on existing facilities would be reduced by 75 percent under Alternate B-D, 60 percent under Alternate A, and 50 percent under Alternate C.

With respect to overall community impacts, Alternate B-D is the best build alternative. It reinforces present land use patterns by closely following Middleburg and Bucher John Roads, thus promoting continued residential development in areas already developed as opposed to other alternates (particularly A) which would disrupt farm operations and lead to a mixing of agricultural and residential uses. Alternate B-D would also be less disruptive of existing development than Alternate C, affecting one residence compared to 34 residences and 2 businesses. Alternate A would affect one dwelling.

Impacts upon the natural environment do not vary significantly between build alternates.

All build alternates, including B-D, would have involved property taking from two or more sites identified as having historic significance. The sites impacted by each alternate are listed in Exhibits 34 and 35 on pages 101 and 102, respectively. Only "C" would have required the taking of any historic structures. Due to the extensive size of the land parcels associated with some of the historic sites, it should be noted that any feasible alignment within the Keymar-Union Bridge corridor would require the taking of some property from one or more possible historic sites for right-of-way requirements.

As previously noted in the text and as listed in Exhibit 34, all originally considered build alternates would impact two or more historic sites. Given that there are 27 such sites in a relatively narrow corridor, some of which are located on large parcels of land (100 acres or more), no build alternate could be feasible on engineering, economic, and environmental grounds and still not impact one or more sites. The location of any build alternate is also constrained by the western project terminus connection with Maryland Route 194 and the eastern terminus connection with Maryland Route 75. The No-Build Alternate, of course, would have no effects upon these historic sites.

As shown in Exhibit 37, a southerly shift in the alignment of Alternate B-D was considered in an attempt to avoid separating the cemetery from the farm buildings of Site 19. Although feasible from an engineering perspective, this alternative would adversely affect the drainage area and water source of the pond located south of the farmhouse. This alignment would also severely impact the farming operation and historic property (historic Site 21 is within 100 feet of Site 19) immediately east of Cedar Knoll Farm. Any alignment further south would adversely

Historical Site	Possibly National Register	Impact of Alternatives		
		Sites Taken	Property Taken	Approx. No. of Acres Taken
1				
2		C	C	1.38 - C
3	Yes (district)	C	C	0.18 - C
4	Yes (district)	C	C	0.21 - C
5	Yes (district)	C	C	0.14 - C
6	Yes (district)	C	C	0.90 - C
7	Yes (district)	C	C	0.23 - C
8	Yes (district)			
9	Yes (district)			
10	Yes (district)			
11	Yes (district)	C	C	0.21 - C
12	Yes (district)	C	C	0.15 - C
13	Yes (district)	C	C	0.14 - C
14	Yes (district)	C	C	4.41 - C
15	Yes (district)	C	C	0.10 - C
16	Yes (district)		C	0.17 - C, 1.38 - B
17	Yes		C, D	4.41 - C, D
18	Yes (district)		B	1.38 - B
19	Yes		B, B-D	4.70 - B, B-D
20	Yes		C	0.41 - C
21			B	5.37 - B
22			A	8.13 - A
23	Yes		B, C	1.65 - B, 2.34 - C
24				
25				
26	Yes			
27	Yes		A, B, C, D, B-D	7.00 - A, B, C, D, B-D

EXHIBIT 34
 Preliminary Determination of
 Historical Significance and
 Impact for Historical
 Sites in the Study Area

Property Taking From
Historical Sites
by Project Alternatives

<u>Alternative</u>	<u>Historical Sites From Which Property is Taken</u>
A	22, 27
B	16, 18, 19, 21, 23, 27
C	2, 3, 4, 5, 6, 7, 11, 12, 13, 14, 15, 16, 17, 20, 23, 27
D	17, 27
B-D	19, 27

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affect a number of farming operations by severing valuable cropland, interfere with railroad operations, be inconsistent with the County Master Plan, and degrade the natural qualities of Little Pipe Creek. An alignment north of Site 19 would impact the Middleburg Historic District and the Bowling Brook Boys Home under both Section 4(f) and Section 106. Finally, an alignment north of Site 19 but just south of Middleburg Road would necessitate the taking of historic structures adjacent to the post office.

In order to make a connection at the eastern project terminus with Maryland Route 75, any alignment must pass through property of Site 27. However, the selected alternate has been designed to avoid crossing the prime agricultural land within the historic parcel. Alternates A, B, and C would have come closer to the farm buildings and dwelling (see Exhibit 32). The selected route follows existing topographic features and field patterns, resulting in minimal visual or farming disruption.

6. MEASURES TO MINIMIZE HARM

Visual impacts of the selected alternate on Site 19 can be mitigated through the use of visual attenuation devices such as shrubbery, foliage, berms, and walls. Screening vegetation that does not create a safety hazard will be considered for this site during the design and construction phases of the project. As noted earlier, there will be no visual impacts on Site 27.

The noise attenuation that can be achieved on an uncontrolled access highway is limited to 3-4 dBA. In view of the fact that a 3-4 dBA decrease in noise levels is marginally perceptible and that the costs associated with the construction of berms/walls is extremely high, this measure is not

considered to be economically feasible for Site 19. In addition, the construction of a noise barrier at Site 19 would eliminate the accessibility between farming parcels separated by the proposed roadway. There will be no noise effects on Site 27.

As discussed in the previous section, shifting the alignment of Alternate B-D in the vicinity of Site 19 was considered but would result in significant adverse impacts in other areas. The impact of the proposed project has been minimized at Site 27, however, where the alignment will avoid crossing prime agricultural land and be far (1,700 feet) from the farmhouse. The replacement of land for this site has been considered. Informal conversations with the owner have taken place. As the project proceeds through the design and right-of-way acquisition phases, this aspect will be discussed with the property owner. If replacement lands for the historic sites are not requested, normal right-of-way compensation procedures will be pursued in accordance with existing laws.

7. COORDINATION

The Maryland Historical Trust identified the historical resources and associated boundaries within this project study area. Correspondence from the Trust is included in Appendix B.

8. CONCLUSIONS

The above factors and considerations establish that there is no feasible and prudent alternate to the use of land from the historic sites and that the project includes all possible planning to minimize harm resulting from such use.

VI. CONCURRING STATEMENTS AND SUMMARY
OF COORDINATION

Various federal, state, and local agencies were asked to review and comment upon the proposed project. The following is a list of those agencies who responded. Copies of their letters appear in Appendix B, on pages B(1) through B(11).

- Mr. J. Rodney Little
State Historic Preservation Officer
Maryland Historical Trust
21 State Circle
Annapolis, Maryland 21401
- Ms. Nancy Miller
Acting State Historic Preservation Officer
Maryland Historical Trust
21 State Circle
Annapolis, Maryland 21401
- Mr. Larry E. Meierotto
Deputy Assistant
Office of the Secretary
U.S. Department of Interior
Washington, D.C. 20240
- Mr. William E. Trieschman, Jr.
Baltimore District, Corps of Engineers
Department of the Army
P.O. Box 1715
Baltimore, Maryland 21203
- Mr. Nicholas M. Ruha
Chief, EIS and Wetlands Review Section
U.S. Environmental Protection Agency
Region III
6th and Walnut Streets
Philadelphia, Pennsylvania 19106

- Mr. George J. Andreve
Architectural Historian
Maryland Historical Trust
21 State Circle
Annapolis, Maryland 21401
- Mr. Ted Bishop
Transportation Planner
Maryland Department of State Planning
301 West Preston Street
Baltimore, Maryland 21201
- Mr. William K. Bonta, Chief
Division of Program Planning and Analysis
Bureau of Air Quality Control
Department of Health and Mental Hygiene
Environmental Health Administration
201 West Preston Street
Baltimore, Maryland 21203
- Mr. John L. Armacost
Director of Public Works
The Carroll County Department of Public Works
County Office Building
225 N. Center Street
Westminster, Maryland 21157
- Mr. Edmund R. Cueman
Planning Director
Carroll County Planning and Zoning Commission
County Office Building
Westminster, Maryland 21157
- Mr. Robert N. Young
Executive Director
Regional Planning Council
701 St. Paul Street
Baltimore, Maryland 21202.

A Location Public Hearing for the proposed project was held at 7:30 p.m. on Thursday, May 18, 1978 at Elmer A. Wolfe Elementary School, Union Bridge, Maryland. Two alternates (Build Alternate B-D and the No-Build Alternate) were presented for discussion at the hearing. There were nine speakers at the hearing; their comments are summarized below, and responses to their comments are also presented. Complete comments are available for review in the Public Hearing Transcript.

- Comment Number 1: A representative of the Carroll County Office of Planning and Zoning requested a more detailed analysis of Alternate A.
Response: Based on preliminary environmental and engineering analyses, comments from reviewing agencies, Carroll County officials, and concerned citizens, Alternate A was dropped from further consideration in favor of Alternate B-D.
- Comment Number 2: One individual was concerned that the placement of fill material in the Little Pipe Creek floodplain would intensify existing flooding problems in the Union Bridge area. Concern was also expressed over the potential construction impacts of erosion and sedimentation on the water quality of area streams.
Response: See the impact section on water quality, pages 46 and 47.
- Comment Number 3: One area resident felt that the existing roadway network is sufficient for area residents and that the proposed roadway would increase truck traffic and encourage speeding, interrupt the surrounding woodlands, and stimulate residential development.
Response: The proposed extension of Route 77 would divert a significant proportion of traffic (particularly heavy truck traffic) to a safer designed facility and shift air and noise pollution away from residential areas. The design operating speed of 50 m.p.h. will be enforced by the state police. The proposed roadway would cross the northern portion of a single forested tract approximately 26 acres in size. It is estimated that this crossing will result in the loss of only 1.5 acres of wooded land. The remainder of the area's

forest tracts, if left undisturbed, should not significantly change. Since the proposed build alternate B-D is near an area of existing residential development along Middleburg and Bucher John Roads, it is felt that new residential development would be minimal.

- Comment Number 4: Several residents, whose homes' are near the proposed roadway expressed concern over the proximity of the roadway to their individual sewer, and water systems. One resident was also concerned over potential increases in noise levels due to the proposed road. In consideration of these potential impacts, it was suggested that the alignment be relocated.
Response: During the detailed design stage of this project study, the exact impacts of the proposed roadway on each individual property owner will be determined. At that time, every effort will be made to avoid or minimize any adverse effects. In the event that an impact cannot be avoided, just compensation will be made at the time of the right-of-way settlement.
- Comment Number 5: Mr. Beck, a Maryland State Delegate from Carroll County suggested that in conjunction with the Maryland Route 77 study, a project be initiated to alleviate an existing traffic problem at a T intersection in New Windsor.
Response: At the present time there are no plans for a roadway realignment at New Windsor to coincide with the extension of Maryland Route 77. It is anticipated that sometime in the future a new bypass in the New Windsor area will be constructed. However, the primary purpose of the proposed project is to provide a direct, safe east-west connection between Keymar and Union Bridge and to relieve narrow local roads of heavy truck traffic.
- Comment Number 6: Maryland State Senator Charles Smelser reiterated the issues raised by area residents of the impacts of the proposed project on water and sewer systems and on the existing flooding problem in Union Bridge. In addition, he suggested that improvements to the bridge going into Union Bridge be considered as part of the proposed project.
Response: Flood conditions and impacts to sewer and water systems are discussed in responses 2 and 4. A separate feasibility study dealing with bridge improvements is currently in the early stages of development and will not be included as part of this project.

- Comment Number 7: One area resident asked what, if any, corrective measures are currently being taken to alleviate the flooding problem in the Union Bridge area.
Response: The Soil Conservation Service proposed 3 flood control dams that were eventually rejected by the citizens of Carroll County. The Water Resources Administration is the Maryland State agency responsible for controlling new construction in flood prone areas.
- Comment Number 8: Mr. Willar, Mayor of Union Bridge spoke in favor of constructing the extension of Maryland Route 77 as proposed.
Response: Build Alternate B-D is the recommended alternate.

In addition to the speakers at the hearing, one letter was received prior to and 9 letters were received subsequent to the hearing. These comments and responses to them are presented below. Copies of these letters appear in Appendix B.

- Comment Number 9: One area resident suggested a shift in the roadway alignment closer to the north side of Bucher John Road to avoid severing his property. In addition, a clarification of access versus non-access was requested. A final concern was expressed over the possible interference of the proposed roadway with an approved airstrip immediately north of Bucher John Road and east of Middleburg Road.
Response: See Response #4 in conjunction with shifting the roadway alignment. The extension of Maryland Route 77 has been designed as an uncontrolled access highway. This means that vehicles can freely enter or exit the highway from or to other roads, houses, etc. On a controlled access highway, entrances and exits are restricted to predetermined locations. Finally, the State Aviation Administration has indicated that there should be no conflict between vehicles using the proposed highway and aircraft using the airstrip.
- Comment Number 10: Three individuals expressed their support of Alternate B-D. In addition, the Carroll County Planning and Zoning Commission favor Alternate B-D.

- Comment Number 11: A petition submitted by 35 citizens representing the residents along Bucher John Road endorsed the No-Build Alternate. One individual, in addition to supporting the No-Build Alternate asked how many heavy trucks per day use the local roads between Keymar and Union Bridge. Response (to Comments #10 and 11): As stated in response to Comment 8, Build Alternate B-D is the recommended alternate. At the present time approximately 596 trucks travel the local roads between Keymar and Union Bridge each day.

APPENDIX A

THE ENVIRONMENTAL ASSESSMENT FORM:
A REQUIREMENT OF THE IMPLEMENTATION OF THE
MARYLAND ENVIRONMENTAL POLICY ACT

ASSESSMENT OF SIGNIFICANT ENVIRONMENTAL EFFECTS

The following questions should be answered by placing a check in the appropriate column(s). If desirable, the "comments attached" column can be checked by itself or in combination with an answer of "yes" or "no" to provide additional information or to overcome an affirmative presumption.

In answering the questions, the significant beneficial and adverse, short and long term effects of the proposed action, on-site and off-site during construction and operation should be considered.

All questions should be answered as if the agency is subject to the same requirements as a private person requesting a license or permit from the State or Federal Government.

	<u>Yes</u>	<u>No</u>	<u>Comments Attached</u>
A. Land Use Considerations			
1. Will the action be within the 100 year flood plain?	<u>X</u>	___	See pg. 47
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>	___

	<u>Yes</u>	<u>No</u>	<u>Comments Attached</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>	—
12. Will the action affect the use of any natural or man-made features that are unique to the county, state or nation?	—	<u>X</u>	—
13. Will the action affect the use of an archaeological or historical site or structure?	<u>X</u>	—	See Section 4(f) <u>Statement attached</u>
B. Water Use Considerations			
14. Will the action require a permit for the change of the course, current, or cross-section of a stream or other body of water?	—	<u>X</u>	—
15. Will the action require the construction, alteration or removal of a dam, reservoir or waterway obstruction?	—	<u>X</u>	—
16. Will the action change the over-land flow of storm water or reduce the absorption capacity of the ground?	<u>X</u>	—	See comments on page <u>A(5)</u>
17. Will the action require a permit for the drilling of a water well?	—	<u>X</u>	—
18. Will the action require a permit for water appropriation?	—	<u>X</u>	—
19. Will the action require a permit for the construction and operation of facilities for treatment or distribution of water?	—	<u>X</u>	—
20. Will the project require a permit for the construction and operation of facilities for sewage treatment and/or land disposal of liquid waste derivatives?	—	<u>X</u>	—
21. Will the action result in any discharge into surface or sub-surface water?	<u>X</u>	—	See <u>page 46</u>

	<u>Yes</u>	<u>No</u>	<u>Comments Attached</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>	___	See pp. 51-62
24. If so, will the discharge affect ambient air quality parameters or produce a disagreeable odor?	___	<u>X</u>	See pp. 51-62
25. Will the action generate additional noise which differs in character or level from present conditions?	___	___	See page 62-75
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>	___
E. Socio-Economic			
31. Will the action result in a pre-emption or division of properties or impair their economic use?	<u>X</u>	___	See pp. 31-32

	<u>Yes</u>	<u>No</u>	<u>Comments Attached</u>
32. Will the action cause relocation of activities, structures or result in a change in the population density or distribution?	___	<u>X</u>	See page 31
33. Will the action alter land values?	___	<u>X</u>	___
34. Will the action affect traffic flow and volume?	<u>X</u>	___	See pp. 9-10
35. Will the action affect the production, extraction, harvest or potential use of a scarce or economically important resource?	<u>X</u>	___	See pp. 31-32
36. Will the action require a license to construct a sawmill or other plant for the manufacture of forest products?	___	<u>X</u>	___
37. Is the action in accord with federal, state, regional and local comprehensive or functional plans--including zoning?	<u>X</u>	___	___
38. Will the action affect the employment opportunities for persons in the area?	___	<u>X</u>	___
39. Will the action affect the ability of the area to attract new sources of tax revenue?	___	<u>X</u>	___
40. Will the action discourage present sources of tax revenue from remaining in the area, or affirmatively encourage them to relocate elsewhere?	___	<u>X</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 effects to the public health, safety, welfare or the natural environment?	<u>X</u>	___	___

	<u>Yes</u>	<u>No</u>	<u>Comments Attached</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>	—
G. Conclusion			
47. This agency will develop a complete environmental effects report on the proposed action.	—	<u>X</u>	See <u>comments below</u>

COMMENTS ATTACHED.

- B16 Paving of the two-lane highway will to a minimal extent reduce the absorption capacity of the area. In addition, the alignment cuts across the direction of drainage flows, but the number of stream crossings (5) along the four-mile alignment will in effect minimize changes in overland flows (i. e., the storm water would naturally drain into the streams).
- G47 This agency is currently preparing a Negative Declaration that will adequately address all information contained in an Environmental Effects Report (EER). Because of the overlap between federal law and state law, it would be inefficient to duplicate the effort involved in preparing a separate state EER. Therefore, as in accordance with the Maryland Environmental Policy Act Guidelines, one report, the Negative Declaration, will be developed covering the requirements under both laws.

APPENDIX B
CORRESPONDENCE

126



Maryland Historical Trust

June 26, 1979

RE: Maryland Route 77 Extended
Keymar to Union Bridge
CL 486-007-771
F.A.P. No. RS 9247 (1)

Mr. Eugene T. Camponeschi
Chief, Bureau of Project Planning
State Highway Administration
300 West Preston Street
Baltimore, Maryland 21211

Dear Mr. Camponeschi,

The attached map indicates the historically associated boundaries of the Bruckey farm. Please feel free to contact us if further information is needed.

Sincerely,

Peter E. Kurtze
Peggy B. Weissman
Historic Sites Surveyors

PEK:PBW:mcr
Enclosure

cc: Mr. Walter L. Hanrahan
Mr. Louis H. Ege

127



Maryland Historical Trust

February 9, 1979

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

Re: Md 77 extended (Keymar to
Union Bridge) CL 486-007-771
FAP #RS-9247(1)

Dear Mr. Camponeschi:

In light of recent research, it appears that neither the Bruckey farm nor Cedar Knoll farm is likely to meet National Register criteria for eligibility. Both sites have undergone alterations detrimental to their integrity; however, they are on the state inventory and of local historic significance.

The extensive alterations to the Bruckey house have diminished its historical character; however, the barn affords a good example of a form of decoration which appears frequently in the area.

The Cedar Knoll farmstead includes a house whose late 19th century exterior is in good repair but which is not of outstanding architectural interest. The original homestead, an early 19th century log cabin, has been gutted to serve its present function as a hay barn. The association of the house and a family cemetery is of local historic significance.

Sincerely,

J. Rodney Little
State Historic Preservation
Officer

JRL/kan

cc: M. Ballard
P. Kurtz

128



Maryland Historical Trust

DR 67 1 04 5 03

August 29, 1978

ADMINISTRATION
PROJECT PLANNING

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

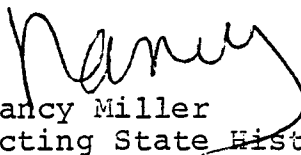
RE:CL 486-007-771
Maryland Route 77 Extended
Md. 194 to Md. 75

Dear Mr. Camponeschi:

The State Historic Preservation Officer would concur with the Federal Highway Administration in the following determinations of effect for the proposed construction of Maryland Route 77.

1. Mount Pleasant - no effect.
2. Brickey House - no adverse effect owing to the introduction of an additional highway facility in the immediate vicinity of the property.
3. Cedar Knoll Farmhouse - no adverse effect owing to the introduction of a new highway facility near the property.

Sincerely,


Nancy Miller
Acting State Historic
Preservation Officer

NAM:mms

cc: Mrs. Sanner; Mrs. Joseph; Ms. Ballard

NOTE: Bruckey [sic] House and Cedar Knoll Farmhouse subsequently have been determined not eligible for the National Register. (See Maryland Historical Trust letter of February 9, 1979)



United States Department of the Interior 129

 OFFICE OF THE SECRETARY
 WASHINGTON, D.C. 20240

ER-78/354

JUN 16 1978

Dear Mr. Elinsky:

This is in response to a request for the Department of the Interior's comments on the draft negative declaration/Section 4(f) statement for Maryland Route 77, Carroll County, Maryland.

SECTION 4(f) COMMENTS

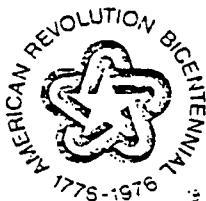
This Department concurs with the proposed selection of Alternate B-D, as it appears to meet the requirement of the first provision of Section 4(f). The other alternates also would adversely impact Section 4(f) properties within the highway corridor. Alternate B-D appears to have the least impact on historic properties of all the proposed alignments.

If Alternate B-D is selected, the second provision of Section 4(f), all possible planning to minimize harm, must be applied to the three historic properties affected by this alignment. Page 103 of the draft statement indicates that the Maryland Department of Transportation will consider constructing berms/walls and will landscape, where feasible, to buffer noise and visual impact from the highway. We concur with these mitigation measures, and would question an earlier statement on page 72 which states it is impractical to plant trees on an unlimited access road. We would concur further with the recommendation to replace acreage taken from the historic sites if possible. The final statement should contain more specific information on the feasibility and practicality of the mitigation measures, and strengthen the commitment to complete them.

NEGATIVE DECLARATION COMMENTS

Historic Resources:

On pages 94 and 95, the document states that the three sites impacted by Alternate B-D (1, 19, 27) all have local significance, and sites 19 and 27 may be eligible for inclusion on the National Register of Historic Places. Therefore, if Alternate B-D is selected a formal determination of eligibility should be requested, following the procedures in the Federal Register of September 21, 1977 (36 CFR 63).



Mr. Emil Elinsky, Baltimore, Maryland

In addition, all procedures mandated by Section 106 of the National Historic Preservation Act of 1966 also must be followed if the sites are determined to be eligible. Regulations concerning the Advisory Council's process for compliance with Section 106 were published in the Federal Register of January 25, 1974 (36 CFR 800).

Fish and Wildlife Resources:

In general, the draft statement adequately addresses existing conditions and subsequent impacts to fish and wildlife resources through project implementation.

It should be noted that project implementation will contribute to the degradation of water quality through increased erosion and sedimentation during construction; increased runoff due to the increase in the amount of impermeable road surface; and increased pollutant materials from roadway surface runoff, including de-icing salts, oils and grease.

Page 50 of the document states that displaced wildlife will probably find new habitat nearby. This is not necessarily true because displaced individuals are forced into increased competition for food and cover and this results in mortality for the displaced organisms.

We are concerned with the possible adverse effects of the proposed 800-foot encroachment upon the floodplain (page 47). Executive Order 11988 states that the potential effects of floodplain activities should be fully evaluated, and encourages the careful consideration of alternatives to such encroachment.

The No-Build alternate is the least damaging to fish and wildlife resources. If Alternate B-D is selected, the Fish and Wildlife Service of this Department would be pleased to help determine wildlife and fisheries compensation requirements. The field office of that agency responsible for such assistance is: Delmarva Area Office, 1825B Virginia Street, Annapolis, Maryland 24401.

We are pleased that no channel relocations are planned and suggest that channel alterations be kept to a minimum. We recommend that bridges, rather than culverts, be used wherever possible to completely span open streams and the associated wetland areas. In the event a Corps of Engineers permit is required for stream crossings, the Fish and Wildlife Service, in its review of the permit, would make such a recommendation.

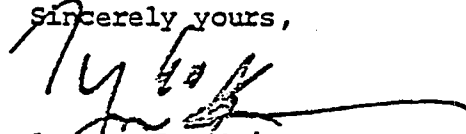
Mr. Emil Elinsky, Baltimore, Maryland

Construction activities should be conducted as much as possible during periods of low stream flow to minimize erosion and sedimentation, storm water detention devices should be incorporated where possible, and construction activities should be conducted to insure that there is no increase in the quantity or velocity of storm water runoff.

SUMMARY COMMENTS

The Department of the Interior would concur with U.S. Department of Transportation Section 4(f) approval of Alternate B-D, provided that compliance with all mitigation procedures is followed.

Sincerely yours,



Larry E. Meierotto

~~Deputy Assistant~~ Secretary of the Interior

Mr. Emil Elinsky
Division Administrator
Federal Highway Administration
The Rotunda, Suite 220
Baltimore, Maryland 21211

cc: Mr. Eugene T. Camponeschi
Chief, Bureau of Project Planning
State Highway Administration
300 West Preston Street
Baltimore, Maryland 21201

NOTE: The planting of trees can be effective as a visual attenuation device. However, on an uncontrolled access highway, the trees could interfere with free automobile access to the highway thereby necessitating their removal at some future time. Therefore, due to the potential safety hazard associated with tree growth, trees will not be provided within the narrow confines of approximately 100 feet of right-of-way.

Observations during high flows shows that the water is conveyed across Maryland Route 75 by flow through the existing bridge and over the roadway south of the bridge. Considering the location of the bridge and the areas of "over the roadway flow", it can be safely assumed that the encroachment will not affect the floodplain's ability to convey the water. What is lost in terms of storage is negligible considering the size of the Little Pipe Creek floodplain.

CL 456
PUB



Carroll County Planning and Zoning Commission

County Office Building
Westminster, Maryland 21157

MAY 2 AM 9 51

COMMISSION MEMBERS
HARRY B. DOUGHERTY, CHAIRMAN
ALEX MILLER RICHARDSON
PROJUSSELL HARRIS
FRED P. ESBRANDT
ROGER L. MANN

EDMUND R. CUEMAN, DIRECTOR

WESTMINSTER 301-848-4500
BALTIMORE 301-876-2083

May 25, 1978

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

Re: Proposed Extension of Maryland Route 77

Dear Mr. Camponeschi:

This will confirm my phone conversation with you this date indicating that this office supports Alternate B-D. You have prior correspondence from the County Commissioners and the Director of Public Works which indicates their general support for this particular Alternate. At the public hearing of May 18, 1978 held at the Elmer Wolfe Elementary School, Bobbi Moser of this office indicated a number of comments relating to Alternate A. These comments were made thinking that Alternate A was still under consideration and, assuming that it was, it was our intention to make suggestions which we felt would have improved that particular alignment. However, since Alternate A has been eliminated entirely, these comments are moot and may be disregarded.

With respect to the preferred B-D alignment, it is our understanding that the State will be considering the possibility of adjusting the western end of the roadway to coincide with the existing Middleburg Road, and that careful consideration will be given to compensating for any fill within the existing flood plain near Union Bridge at the Rt. 75 terminus. I know you are aware of the problem that exists here.

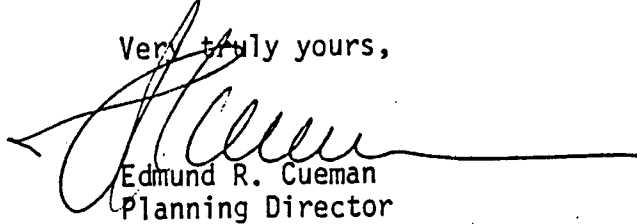
Finally, any effect this connecting road from Keymar to Union Bridge may have on traffic movements in the Town of New Windsor could be resolved, for the most part, by a planned connection of Rt. 75 to Md. Rt. 31 on the northeast side of New Windsor. This Rt. 75-31 connection is presently on the Master Plan for New Windsor and I mention it only because there was some concern expressed at the hearing as to what effects the Keymar-Union Bridge connection would have on New Windsor.

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Mr. Eugene Camponeschi, Chief
Re: Proposed Extension of Maryland Route 77
May 25, 1978
Page Two

I regret that we had some confusion over where we are in the hearing process and trust you won't hesitate to contact me should you have any further questions, as we are interested in seeing the continued processing of this project through to completion.

Very truly yours,



Edmund R. Cueman
Planning Director

ERC/ns
cc: Mr. Carl Raith
Board of County Commissioners
Mayor Edward Williar

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BUREAU OF PROJECT PLANNING

JAN 21 1978

Office of
The Carroll County Department of Public Works

County Office Building
225 N. Center Street
Westminster, Maryland 21157

January 23, 1978

TELEPHONE
WESTMINSTER AREA (301) 848-4500
BALTIMORE AREA (301) 876-2083

JOHN L. ARMACOST
DIRECTOR OF PUBLIC WORKS

Mr. Eugene T. Camponeschi, Chief
Bureau of Project Planning
State Highway Administration
Room 403, P. O. Box 717
300 West Preston Street
Baltimore, Maryland 21203

Re: Md. Route 77 Extended
Union Bridge to Keymar

Dear Mr. Camponeschi:

Thank you for the opportunity to review the Preliminary Draft
Negative Declaration relative to the subject project.

We have no comments relative to this document. We concur in
your choice of alignment B-D.

Very truly yours,

JOHN L. ARMACOST
Director of Public Works

JLA:pc



DEPARTMENT OF HEALTH AND MENTAL HYGIENE
ENVIRONMENTAL HEALTH ADMINISTRATION

P.O. BOX 13387

201 WEST PRESTON STREET
BALTIMORE, MARYLAND 21203
PHONE • 301-383-3245

NEIL SOLOMON, M.D., PH.D.
SECRETARY

DONALD H. NOREN
DIRECTOR

October 19, 1977

Mr. Andy Brooks
Bureau of Landscape Architecture
Joppa and Falls Roads
Brooklandville, Maryland 21022

Dear Andy,

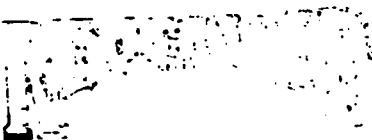
We have reviewed the Air Quality Analysis of Maryland Route 77 Extended and found all alternatives to be consistent with air quality standards.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Bill", is written over the typed name.

William K. Bonta, Chief
Division of Program Planning & Analysis
Bureau of Air Quality and Noise Control

WKB:JH:bac



OCT 23 1977

C. R. ANDERSON

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

October 17, 1977

Mr. Charles R. Anderson
Chief, Bureau of Landscape Architecture
Maryland State Highway Administration
2323 West Joppa Road
Brooklandville, Maryland 21022

Re: Air Analysis, Maryland Route 77, Carroll County, Maryland

Dear Mr. Anderson:

We have reviewed the air analysis for the above proposed project. Based upon this review, we have no objections to the project with respect to air quality impacts. If you have any questions or if we can be of any further assistance, please contact us.

Sincerely yours,

A handwritten signature in cursive script that reads "Nicholas M. Ruha".

for Nicholas M. Ruha
Chief
EIS and Wetlands Review Section

RECEIVED

OCT 21 1977

C. R. ANDERSON



The Maryland Historical Trust.

APPENDIX B(9)

Shaw House, 21 State Circle, Annapolis, Maryland 21401

301: 269-1212 or 301: 267-1438

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CAMPONESCHI	CATHERMAN	HOPKINS
MOSE	DONNELLY	...
CLAK	GRANDY	...
SCHNEIDER	HEWIG	...
...	HOFFMAN	WILLIAMSON
ACTION	INFO	FILE

December 22, 1976 3 15

ADDITIONAL INFORMATION

Mr. Eugene T. Camponeschi
 Bureau of Project Planning
 State Highway Administration
 Maryland Department of Transportation
 300 West Preston Street
 P.O. Box 717
 Baltimore, Maryland 21203

RE: Maryland Route 77 Extended From Maryland Route 194 at Keymar
 to Maryland Route 75 at Union Bridge
 Contract No. CL 486-007-771

Dear Mr. Camponeschi:

Thank you for your letter of December 3, 1976, regarding the project listed above. I appreciate the photographs and descriptions of buildings in the area and recently had an opportunity to have a brief look at them.

From your information and my short visit to the area, I believe that A-7, D-7, D-8, E-2, 3 and E-4 are not eligible for the National Register. The eligibility of A-6 would depend on the degree of significance of its local historical associations, the quality of the interior and what outbuildings might be present in addition to the good barn. There is a strong possibility that D-4,5 as well as E-1 would be eligible. E-1 is a good example of a simple, small, Gothic Revival cottage.

I feel that old Middleburg would be eligible for the National Register as a district. This would include A-8, B-1, B-2, B-3, B-4, B-5, B-6, B-7, C-3, C-4, C-5, C-6, C-7 and C-8. Although they are some distance from the concentration of buildings comprising old Middleburg, D-2,3 and D-1 might be included within a Middleburg district after further study. By themselves, I think D-2,3 would not be eligible but that D-1 would be. Another eligible small historic district could be at the intersection where B-8 and C-1,2 are. In my judgement D-6, E-5 and certainly E-6,7,8 are eligible for the Register.

I hope that these preliminary determinations will be all that you need at the present time. If not, please let me know. Also,

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please contact me when you are ready to schedule the joint field survey and I will arrange for our county representative to be there at the same time.

Sincerely,

George J. Andreve

George J. Andreve
Architectural Historian

GJA/njm

cc: Margaret Ballard ✓
Mrs. Arnold Joseph

HISTORICAL SITES CODE

A-6	= 1	C-1, C-2	= 10	D-4, D-5	= 19
A-7	= 2	C-3	= 11	D-6	= 20
A-8	= 3	C-4	= 12	D-7	= 21
B-1	= 4	C-5	= 13	D-8	= 22
B-2	= 5	C-6	= 14	E-1	= 23
B-3, B-4	= 6	C-7	= 15	E-2, E-3	= 24
B-5	= 7	C-8	= 16	E-4	= 25
B-6, B-7	= 8	D-1	= 17	E-5	= 26
B-8	= 9	D-2, D-3	= 18	E-6, E-7,	
				E-8	= 27

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

REPLY TO ATTENTION OF:

NABPL-F

23 August 1976
RECEIVED
AUG 24 1976

BUREAU OF BRIDGE DESIGN

Mr. Andrew Chin
Bureau of Bridge Design
State Highway Administration
300 West Preston Street
Baltimore, Maryland 21201

Dear Mr. Chin:

Reference is made to your phone conversation with Major Wilson of my staff on 19 August 1976 in regard to flooding problems being experienced along Little Pipe Creek in the vicinity of Union Bridge, Maryland.

Based on a brief review of files available at this office, it is found that the Baltimore District has not previously investigated flooding in the Little Pipe Creek watershed. However, we do have a Draft Work Plan for the Big and Little Pipe Creek watersheds, which was prepared by the U.S. Department of Agriculture, Soil Conservation Service (SCS) in February 1975 under their Public Law 566 Program.

In view of this, it is recommended that you contact SCS to determine how their Draft Work Plan would affect the flooding problems you are experiencing at Union Bridge. You can contact SCS at the following address:

Soil Conservation Service
4321 Hartwick Road
College Park, Maryland
Telephone: (301) 344-4185

Because the SCS has conducted an evaluation of the problem at Union Bridge, it is unlikely that the Corps of Engineers would initiate a separate study in the same watershed.



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NABPL-F
Mr. Andrew Chin

23 August 1976

Should you have any further questions concerning this matter, please contact Major Wilson at (301) 962-2549.

Sincerely yours,

Harold L. Nelson

for WILLIAM E. TRIESCHMAN, Jr.
Chief, Planning Division

CORR



MARVIN MANDEL GOVERNOR

MARYLAND DEPARTMENT OF STATE PLANNING

301 WEST PRESTON STREET BALTIMORE, MARYLAND 21201 TELEPHONE: 301-383-2451

VLADIMIR A. WATBE SECRETARY OF STATE PLANNING MADELINE L. SCHUSTER DEPUTY SECRETARY

July 15, 1975

RE: Information Requests

TO: Mr. Eugene Camponeschi, Chief, Bureau of Project Planning, SHA

FROM: Mr. Ted Bishop, Transportation Planner, Dept. of State Planning

The Department of State Planning Received on June 30, 1975 your notification concerning the following project:

Engineering Studies Maryland Route 77 Extended From Maryland Route 194 at Keymar to Maryland Route 75 at Union Bridge.

You have requested that this Department:

Forward Comments.

This Department considers the following action(s) to be appropriate:

The information you have requested is not available from this Department. We suggest you contact;

Additional The information you have requested can be provided by: Stone-Fraley of our regional office. They may be reached by Phoning: 383-2173

We have included the following for your use:

Please see attached comments.

Futher explanation can be provided, if necessary, by: They may be reached by phoning:

We feel that a meeting is required.

- Checklist of names: CAMPONESCHI, DYSON, COFFEY, HERNING, HOFFMAN, HOPKINS, JUST, JANIATA, KOLLER, SCHNEIDER, UHL, FILE

Signature: [Handwritten Signature] 7-15-75

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Comments

Given the very tight monetary constraints present in the current five-year highway construction program, it appears that initiation of new, non-reconstruction road facilities such as an extension of Route 77 require close evaluation as to the necessity of the project. The relevant question becomes whether such a connection between Route 75 and Route 77 is necessary, or can other local facilities serve the same function, possibly as upgraded roads.

Any new facilities designed so as to increase the demand for development (no control of access as postulated) and stimulate vehicle miles of travel should probably be deleted in favor of improving flow characteristics on existing facilities. Thus the benefits of the Route 77 project need clear enunciation, the lack of which should result in no-build especially if environmental costs are high.

64 486
CL

C1-485-4
Consolidated (1-43-74)

CORR

REGIONAL PLANNING COUNCIL
701 St. Paul Street
Baltimore, Maryland 21202

R & R File No. 74-018
B & P Committee February 1, 1974

REVIEW AND REFERRAL MEMORANDUM

PROJECT IDENTIFICATION

Jurisdiction: Carroll County
Project Name: Md. 77 extended from Md. 194 at Keymar to Md. 75 at Union Bridge,
Preliminary Engineering
Applicant: State Highway Administration
Cost: \$ 232,000 total, \$ 162,400 federal, \$ 69,600 state, \$ _____ local
Grant Program: 20.205 DOT/SHA Highway Planning and Construction

COMMENTS

This project has been reviewed and found to be not inconsistent with local and metro-
politan plans, policies and programs. No intergovernmental issues have been raised.

RECEIVED
FEB 15 1974

FEB 15 1974

Date of Review: FEB 15 1974

- cc: Mr. Jerry L. White
- Mr. Eugene F. Campanoschi ✓
- Mr. Paul M. Heid
- Mr. David Herring
- Mr. Henry Berger

[Signature]
Authorized Representative of
Clearinghouse
Robert N. Young
Executive Director

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Maryland Historical Trust

July 17, 1979

PROJECT PLANNING

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

Subject: CL 486-007-771 Md. Route 77 extended Md. 194
to Md. 75

Dear Mr. Camponeschi:

Regarding the site designated D-7 in previous correspondence:
historically significant boundaries may be considered coter-
minous with the structures (house and associated out buildings)
themselves.

Sincerely,

Peter Kurtze
Historic Sites Surveyor

PK/yc

cc: M. Edwards
W. Hanrahan
R. Krolak

NOTE TO READERS: Site D7 is identified in this report as Site 21.

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APPENDIX C
SUMMARY OF THE RELOCATION ASSISTANCE PROGRAM OF THE
STATE HIGHWAY ADMINISTRATION OF MARYLAND

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

All State Highway Administration projects must comply with the provisions of the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970" (Public Law 91-646) and/or the Annotated Code of Maryland, Article 21, Sections 12-201 thru 12-209. The Maryland Department of Transportation, State Highway Administration, Bureau of Relocation Assistance, administers the Relocation Assistance Program in the State of Maryland.

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

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

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

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

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

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

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

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

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

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

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

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

A more detailed explanation of the benefits and payments available to displaced persons, businesses, farms, and non-profit organizations is available in Relocation Brochures that will be distributed at the public hearings for this project and will also be given to displaced persons individually in the future.

In the event comparable replacement housing is not available to rehouse persons displaced by public projects or that available replacement housing is beyond their financial means, replacement "housing as a last resort" will be utilized to accomplish the rehousing. Detailed studies will be completed by the State Highway Administration and approved by the Federal Highway Administration before "housing as a last resort" could be utilized. "Housing as a last resort" could be provided to displaced persons in several different ways although not limited to the following:

1. An improved property can be purchased or leased.
2. Dwelling units can be rehabilitated and purchased or leased.
3. New dwelling units can be constructed.
4. State acquired dwellings can be relocated, rehabilitated, and purchased or leased.

Any of these methods could be utilized by the State Highway Administration and such housing would be made available to displaced persons. In addition to the above procedure, individual replacement housing payments can be increased beyond the statutory limits in order to allow a displaced person to purchase or rent a dwelling unit that is within his financial means.

The "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970" requires that the State Highway Administration shall not proceed with any phase of any project which will cause the relocation of any person, or proceed with any construction project until it has furnished satisfactory assurances that the above payments will be provided and that all displaced persons will be satisfactorily relocated to comparable decent, safe and sanitary housing within their financial means or that such housing is in place and has been made available to the displaced person.