SIGNIFICANT IMPACT FOR

Contract No. F 866-101-772 INTERSTATE ROUTE 70

MT PHILLIP ROAD TO MARYLAND ROUTE 144 FREDERICK COUNTY
 FEDERAL HIGHWAY ADMINISTRATION
and
MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

FEDERAL HIGHWAY ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT

## FOR

I-70 FROM MT. PHILLIP ROAD
TO MARYLAND ROUTE 144
FREDERICK COUNTY, MARYLAND

The FHWA has determined that this project will not have any significant impact on the environment. This finding of no significant impact is based on the Environmental Assessment and the attached information, which summarizes the assessment and documents the selection of inside widening between Mt. Phillip Road and I-270, outside widening between I-270 and Maryland Route 144, Alternate 4 at the US $15 / 340$ and I-270/US 40 interchanges, and Alternate B-1 at the MD 85/355 and Reich Ford Road/South Street interchanges. The Environmental Assessment has been independently evaluated by the FWHA and determined to adequately discuss the environmental issues and impacts of the proposed project. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required.


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# MEMORANDUM OF ACTION OF ADMINISTRATOR HAL KASSOFF FRIDAY, OCTOBER 10, 1986 <br> * * * 

## Concurrence with Prior Action

A Final Environmental Document (Finding of No Significant Impact) is being prepared on the project listed below. Combined Location/Design approval will be requested from the Federal Highway Administration as noted.

State Contract No. F-866-101-772 - I-70, from Mt. Phillip to Ma. Rte. 144.

Location/Design Recommendation: A combination of inside and outside widening, modification of Alternate 4 , Alternate $\mathrm{B}-1$ and a drainage outfall to the Monocacy River.

The decision to proceed in this manner was made by the Administrator at staff meetings held on September 11, 1985, May 12, 1986 and September 17, 1986, respectively.
$\therefore$

Copy: Mr. J. A. Agro, Jr.
Mr. W. R. Clingan
Mr. E. M. Loskot
Mr. A. M. Capizzi
Mr. G. R. Straub
Mr. L. H. Ese, Jr.
Contract F-866-101-772
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Maryland Department of Transportation
State Highway Administration
October 10, 1986

William K. Hellmann Secretary
Hal Kassoff
Administrator

MEMORANDUM

T0:
Mr. William I. Slacum, Secretary State Roads Commission

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

SUBJECT: Contract No. F 866-101-772
Interstate Route 70
Mt. Phillip Road to
Maryland Route 144
PDMS No. 101007

The Project Development Division is preparing a Finding of No Significant Impact (FONSI) for the subject project. It is anticipated that this document will be ready to submit to the Federal Highway Administration during the month of October, 1986. The decision to proceed with the FONSI recommending the combination of inside and outside widening, a modification of Alternate 4, Alternate $B-1$, and a drainage outfall to the Monocacy River along Reichs Ford Road was made by Administrator Kassoff at meetings on September 11, 1985, May 12, 1986 and September 17, 1986.

Summaries of these meetings dated January 21, 1986 and October 1 , 1986 including the Project Management Team recommendation of the selected alternate combination and the concurrence of Administrator Kassoff are attached.

This information is being sent to you as part of the procedure by which you submit the action to Mr. Kassoff, receive his approval, formally record and file this action.


NJP:tn
Attachments
cc: Mr. John A. Agro
Mr. Wayne R. Clingan
Mr. Edward M. Loskot
Mr. Anthony M. Capizzi
Mr. Gene R. Straub
Mr. Louis H. Ege, Jr.


My telephone number is 659-1110
Teletypewriter for Impaired Hearing or Speech

Maryland Department of Transportation
State Highway Administration

William K. Hellman Secretary

Hal Kassoft
Administrator

October 1, 1986

## MEMORANDUM

TO:
Mr. Louis H. Ese, Jr.
Deputy Director
Project Development Division
FROM:
Donald G. Honeywell Project Manager


SUBJECT: Contract No. F 866-101-772
Interstate Route 70
Mt. Phillip Road to Maryland Route 144
PDMS No. 101007
RE:
ADMINISTRATIVE REVIEW
A meeting of the core Project Planning Team was conducted the afternoon of May le, 1986 to present further refinements of the project recommendation to the Administrator as circulated by memo dated May 9, 1986.

Those in attendance were:


Mr. Pedersen opened the meeting by describing the recommended revisions to commercial access for three businesses along the east side of Maryland Route 355 immediately south of I-70. The recommended revision consists of a southerly extension of the frontage road to the turning portion of Maryland Route 355. Also these revisions will allow a right in and right out only on the turning portion of Maryland Route 355. This recommendation was accepted by the Administrator.

The configuration of ramps in the northwest quadrant of the I-270/U.S. Route 40 interchange were discussed at length. The recommended configuration consisted of an interlacing of the southbound to westbound outer connection and the southbound to eastbound direct connection with the westbound to southbound loop ramp (335' radius). This configuration had only one exit to I-70 from southbound U.S. Route 40 and eliminated all weaving along westbound I-70 between U.S. Route $15 / 340$ and I-270/U.S. Route 40 by means of an independent ramp roadway to westbound I-70 connecting to the interstate route at Maryland Route 180 (Jefferson Pike). A comparative matrix was used as the basis of discussion. The Administrator instructed that additional studies be conducted to explore the following objectives: 1) Do not exceed the right-of-way line on the Solarex property as recommended in September, 1985. 2) Utilize a westbound to southbound loop similar in size (270' radius) to that which was recommended in September, 1985. 3) Utilize the southbound to westbound outer connection as presented, overpassing the loop ramp at two locations. 4) The southbound U.S. Route 40 to eastbound I-70 direct connection to overpass the loop ramp and the westbound roadway of $1-70$ to minimize maintenance of traffic problems during construction.

Then followed a discussion of the construction staging recommendation which was found acceptable.

On September 17, 1986 another meeting of the core Project Planning Team was held to present the results of further studies requested by the Administrator and performed by the firm of Johnson, Mirmiran \& Thompson concerning the configuration of the northwest quadrant of the I-270/U.S. Route 40 interchange. Those in attendance were:

Hal Kassoff<br>Gene R. Straub<br>Neil J. Pedersen<br>Louis H. Ege, Jr.<br>Robert J. Houst<br>Donald G. Honeywell<br>Donald H. Sparklin<br>C. Rogers Jorss, Jr.<br>B. Von Wachter<br>Francis E. Dutrow<br>Leroy V. Tyree<br>Harry F. Meyers<br>Daniel T. Cheng<br>Michael J. Rothenheber

The recommended modification of Alternate 4 in the northwest quadrant of the $\mathrm{I}-270 / \mathrm{U} . \mathrm{S}$. Route 40 interchange as presented by Mr . Pedersen was derived from the configuration of Alternate 4 as contained in the Environmental Assessment and presented as an element of the "Preferred Alternate" at the combined location/ design public hearing of May 28, 1985. The modification included: a) reducing the radius of the westbound $I-70$ to southbound I-270 loop ramp to approximately $270^{\prime}$ ( 30 mph ), b) providing a separation between the northbound U.S. Route 15/340 to westbound I-70 outer connection acceleration lane at the Jefferson Street interchange and southbound U.S. Route 40 to eliminate a weaving movement along southbound U.S. Route 40, and c) providing a left turn from northbound U.S. Route 15/340 north of Maryland Route 180 into the westbound to southbound loop of the Jefferson Street interchange for traffic entering the freeway system at the Maryland Route 180 interchange destined southbound on I-270. This configuration was found acceptable by the Administrator because it offered the best weaving situation along southbound U.S. Route 40 and it was the most economical in terms of land use and fiscal resources for initital construction.

It was further determined that a supplemental method of accessing eastbound I-70 from Maryland Route 180 would be investigated for implementation in the event that the left turn movement from northbound U.S. Route $15 / 340$ to southbound I-270 via the Jefferson Street interchange would prove undesirable in the future. This feature involves a loop ramp in the southwest quadrant of the intersection of I-70 and Maryland Route 180 (Ballenger Creek Pike). This feature will receive further consideration dependent upon Frederick County concurrence and the owner of the Hannover Subdivision reserving land ( 7.20 acres) required for the proposed loop. Neat costs for this supplemental loop ramp were estimated as follows:

| Right of Way | $\$ 139,000$ |
| ---: | ---: |
| Roadway | $\$ 100,000$ |
| Bridge widening | $\$ 98,400$ |
| Total | $\$ 337,400$ |

Location and design approval will be pursued on the basis of a Finding of No Significant Impact (FONSI).

DGH: ids
cc: Attendees
Mr. Jack F. Ross
Mr. Jerry L. White
Mr. Evan L. Smith
Ms. Angela Hawkins
Mr. Stephen F. Dram
Mr. James K. Gatley
Mr. Vernon J. Kral
Mr. Robert J. Finck
Mr. Arthur D. Martin
Mr. Darrell A. Wiles
Mrs. Pilar McClelland
Mr. Ronald L. Buchan

Mr. Richard W. Davis
Mr. James H. Graver
Mr. Thomas C. Watts
Mr. Charles B. Adams
Mr. Eugene J. Miller, Jr.
Mr. Richard L. Schindel
Mr. Frank E. Knapp, III
Mr. S. James Heidle
Mr. James A. Schmersahl
Mr. Richard D. Parks
Mr. James R. Shaw
Mr. Lawrence W. Johnson, Jr.
Mr. Charles L. Kolsky

Maryland Department of Transportation

January 21, 198dan 22

256 PHairasssoff Administrator

MEMORANDUM


A meeting of the Project Planning Team was conducted the afternoon of September ll, 1985 to present the project recommendation as distributed at the meeting to the Administrator. Those in attendance were:

Hal Kissoff
Neil Pedersen
Wayne Clingan
Richard Schindel
Anthony Capizzi
B. Wachter

Stephen Drums
Francis Dutrow
Linda Kelbaugh
John Logan
Harry Meyers
Arthur Martin
William Wills, Jr.
Ronald Burns
Matthew Wolniak
Mary Keller
Evan Smith
Robert Holst
S. Lewis Helwig

Cynthia Simpson

Administrator
Director, Office of Planning and Preliminary Engineering District Engineer
Chief, District 7 Office of Real Estate
Chief, Bureau of Highway Design
Bureau of Highway Design
Bureau of Highway Design
Bureau of Highway Design
Bureau of Highway Design
Bureau of Bridge Design
Bureau of Bridge Design
Bureau of Soils \& Foundations
Bureau of Soils \& Foundations
Bureau of Highway Statistics
Bureau of Highway Statistics
Bureau of Highway Planning and
Program Development
Bureau of Engineering Access Permits
Bureau of Project Planning
Bureau of Project Planning
Bureau of Project Planning

Donald Sparklin
Donald Honeywell
Douglas Simmons
John Harris
S. James Heidle
Bureau of Project Planning
Bureau of Project Planning
Bureau of Project Planning
Bureau of Project Planning
Office of Transportation Planning

Following introductions, the Project Manager briefly reviewed the transportation problem noting that both Maryland Route 85 and Maryland Route 355 south of I-70 have recently been widened to four lane streets, and construction of $\mathrm{I}-70$ east of Frederick will be completed during the spring of 1986. The missing interchange movements, high-accident locations, geometric deficiencies, and anticipated capacity problems were mentioned. Several salient issues associated with the project were discussed.
. The City of Frederick's proposed extension of East Street which will form one leg of the East Street interchange is not yet programmed for construction.

The City's southern water loop will require adjustment in the vicinity of the East Street interchange.

Accessibility to three (3) commercial properties along the east side of Maryland Route 355 immediately south of $1-70$ was discussed in detail. Additional suggestions to improve accessibility were offered and will be studied with District Traffic Engineer Gene R. Straub.

Additional coordination will be initiated with the Frederick County Board of Education to retain the present alignment of I-70 in the vicinity of the East Frederick Elementary School.

Having received no requests for a supplemental public hearing
 With bhe wadurich gubdiviaion of the Chosely Syatom nailyouda, thete is sa requitromont ta oanduot anothor hoaring.

The TuAm's recommentation for inaide widenina of fu70 from Mt. Thilifip read to I-270/U.S. Route 40 , outside widening from $1-270 /$ U.S. Route 40 to Maryland Route 144, Alternate 4 to provide missing interchange movements, Alternate $B-1$ to reconstruct the two (2) eastern interchanges, and design and protection of right-of-way for a drainage outfall along Reichs Ford Road was well received by the Administrator. However, further study is required to improve the weaving distance along westbound $I-70$ between $I-270$ and U.S. Route 15/340. Also, a determination will be sought from the Federal Highway Administration as to the extent of their participation in the drainage outfall along Reichs Ford Road.

The construction staging included in the recommendation was approved. Cost estimates will be developed for these stages.

This project will appear in the Consolidated Transportation Program, fiscal year 1986-1991, with final design scheduled to begin during fiscal year 1987.

Results of the required additional studies will be reviewed with the Administrator during early 1986 to obtain final approval of an amended project recommendation.

DGH:bh

```
cc: Att.endees
    Mr. Gene R. Straub
    Mr. Charles R. Anderson
    Mr. Thomas C. Watts
    Mr. Vernon J. Kral
    Mr. Darrell A. Wiles
    Mr. James K. Gatley
    Mr. Charles G. Wroten
    Mr. John D. Bruck
    Mr. James A. Schmersahl
    Mr. Richard D. Parks
    Mr. James R. Shaw
    Mr. Lawrence W. Johnson, Jr.
    Mr. Charles L. Kolsky
```


## II. COMPARISON OF ALTERNATES

TABLE 1
Comparison of Alternates


## Socio-econamic Impacts

| ```Residential Displacements (Famil les)``` | 0 | 0 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Minority Residents Relocated | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Business Displacements | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Persons Employed by Displaced Businesses | 0 | 0 | $8 \pm$ | 0 | 0 | + | 1 | 1 |
| Farm Oisplacements | 0 | 0 | 0 | 0 | 0 | $20 \pm$ | $20 \pm$ | $20 \pm$ |
| Histor ic and Archeological Sites Affected | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |
| Public Recreational Lands | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Affected <br> Effect on Residential Access | No | , | 0 | 0 | 0 | 1 | 0 | 0 |
| Effect on Residential Access Consistency with Land Use Plan | None | Improv. | Improv. | Improv. | Improv. | Improv. | Improv. | Impro |
| Consistency with Land Use Plan | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Natural Environment Impacts

| Loss of Habitat Effect on Threat | 0 | 0 | 0 | 0 | 0 | 0 | 5.6 | 6.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Endangered Species | None | None | None |  |  |  |  |  |
| Stream Crossings | 0 | None | Mone | None | None | None | None | Hone |
| lietland Areas Affected (acres) | 0 | 0 | 0 | $1 / 2$ | 1 | 0 | 0 | 0 |
| Effect on サvildiffe Populations | None | None | 0 | 1/2 | 1/2 | 0 | 0 | 0 |
| Prime Farmland Solls Affected (acres) | 0 | None | None | None | None | None | None | None |
| 100-Year Floodplains Affected | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Air Quality (Sites Exceeding S/NAAOS)C | 0 | /A | 0 | - | 0 | 0 | 0 | 0 |
| NSAs Exceeding fHIYA Noise |  |  | 0 | N/A | N/A | N/A | N/A | N/A |
| Abatement Criteriac | 6 | N/A | 7 | N/A | N/A | N/A | N/A | N/A |
| Cost (1984 Dollars in Thousands) |  |  |  |  |  |  |  |  |
| Right-of-Way/Relocationd | 0 | 461 | 1,125 | 821 |  |  |  |  |
| Constructiond | 0 | 12,858 | 18,751 | 10,524 | 708 7,000 | 1,241 |  | 1,829 |
| Total ${ }^{\text {d }}$ | 0 (minimal) | 13,319 | 19,876 | 11,345 | 7,708 | 6,892 | 6,390 7,986 | 7,198 |

NOTE: The total cost of the selected alternate combination is approximately $\$ 60,714,000$ and includes the total cost of a dralnage outfall ( $\$ 6.4 \mathrm{mllifin}$ ). The costs of the selected alternate combination have been refined and updated as a result of further study subsequent to the Public Hearing and are based on 1986 dollars. Therefore, the costs of the selected alternate combination cannot be directly compared to the costs of the alternates presented at the Public Hearing.

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## III. <br> SUMMARY OF ACTIONS AND RECOMMENDATIONS

III. SUMMARY OF ACTIONS AND RECOMMENDATIONS

## A. Background

1. The Problem and Purpose of the Project

The Interstate Route 70 (I-70) study segment extends from Mt. Phillip Road west of the City of Frederick along Frederick City's south boundary east to Maryland Route 144 (East Patrick Street), a distance of approximately 5.3 miles (see Figures 1 and 2).

The study segment of $I-70$ is a four -1 ane expressway divided by a variable width ( 28 to 380 feet) rural median. The design speed varies from 60 to 70 mph with a posted speed of 55 mph . Portions of the study segment were built to older design standards with closely spaced interchanges containing short ramp radii and short exit and entrance lanes. Interchange ramp geometry is deficient under current standards and there is no safety grading. These portions of the highway do not conform to current Interstate standards and contribute to vehicular conflicts. Moderate to severe peak period congestion is predicted on I-70 by the design year 2010 unless significant capacity improvements are implemented.

At the U.S. Route $15 / 340$ and the Interstate Route 270 (I-270)/U.S. Route 40 interchanges with $I-70$, a number of anticipated turning movements are not available to motorists. The absence of these turning roadways necessitates that movements be executed elsewhere via local roadways resulting in confusion, inefficiency, and circuity of travel. This circuity includes the diversion of motorists onto U.S. Route 40 through the "Golden Mile" commercial area (a city street) where considerable congestion is encountered at signalized intersections.

The Maryland Route $85 / 355$ and the South Street/Reichs Ford Road interchanges provide all turning movements but are substandard in terms of ramp radii and acceleration and deceleration 1 ane lengths. The geometric deficiencies contribute to accidents and vehicle conflicts.

The highway has adequate capacity for existing volumes during peak hours, but is approaching unstable flow. By the design year 2010, traffic volumes are predicted to increase substantially as a result of planned 1 and use in the vicinity of the City of Frederick. The Frederick County and City 1 and use plans envision future residential, commercial, and light industrial/office expansion into vacant areas in the $I-70$ study corridor. The Maryland Department of State Planning reports that Frederick City has sustained the largest net increase in population among all incorporated places in the State in the period since 1980.

Collision rates for the study segment of I-70 are currently less than the statewide average for State highways of similar design. However, ramps at the Maryland Route 85/355 interchange have been designated as high accident ramp locations. Heavy duty trucks are involved in many of the collisions at this interchange. In 1986 signs were erected at the Maryland Route 85/355 interchange to warn motorists of vehicles overturning on the ramp roadways.

This project is compatible with the segment of I-70 recently constructed on a new location from East Patrick Street to east of Ijamsville Road, a distance of 3.87 miles. The new facility which was opened to traffic October 11, 1986, consists of dual 36 -foot (three-lane) roadways separated by a $50-\mathrm{foot}$ rural median. With completion of the new segment of I-70, a continuous 6/8 1 ane divided highway now extends from East Patrick Street easterly to the Baltimore City 1 ine, a distance of approximately 38 miles. Westbound motorists encounter a reduction in the number of lanes at East Patrick Street since the new 3.87 mile segment was opened to traffic.

The purpose of this project is to improve this segment of $I-70$ to better accommodate forecasted traffic volumes and enable traffic to operate with greater safety and accessibility at Level of Service ' $D$ ' through the design year, 2010.

## 2. Proiect History

Project Planning studies were initiated in May 1978 to determine feasibility, necessary safety, and operational improvement requirements and included the investigation of providing missing movements at the U.S. Route 15/340 and I-270/U.S. Route 40 interchanges. On July 6, 1978, a Project Initiation Meeting was conducted at the East Frederick Elementary School. On January 12, 1979, a project status report was provided to those on the project mailing list advising of the scope and limits of the project. On January 24, 1980, an Alternates Public Meeting was conducted at the East Frederick Elementary School. On May 12, 1980, another project status report evaluating comments received at the Alternates Public Meeting and advising of modifications to the alternates was sent to those on the project mailing list. On June 14, 1984, an Informational Public Meeting was conducted at the Frederick High School. At this meeting the Project Planning Team indicated its "Preferred Alternate," which was subsequently endorsed by the City of Frederick and Frederick County.


## INTERSTATE ROUTE 70

## LOCATION MAP




During August 1984, the Sinkhole and Storm-Water Management Study Along Interstate Route 70 between Mt. Phillip Road and Maryland Route 144 report was prepared by Greiner Engineering Sciences, Inc., summarizing the results of a preliminary hydrologic/hydraulic study of sinkholes and alternative drainage outfalls. During May 1985, a Sinkhole Study report was issued by the SHA's Bureau of Soils \& Foundations summarizing a geophysical investigation including dye tests.

During May 1985, the Environmental Assessment/Section 4(f) Evaluation was circulated to agencies and community organizations for review and comment. The Combined Location/Design Public Hearing was conducted at the West Frederick Middle School the evening of May 28, 1985, at which time public comment was solicited and received.

This project appears in the Interstate Development and Evaluation Program of the Consolidated Transportation Program, FY 1986-FY 1991, and is funded for project planning through FY 1986; engineering (final design) is also funded for FY 1987 through FY 1990.

## B. Alternates

1. Description
a. Alternates Studied But Dropped

During the course of this Project Planning study several planning concepts and alternates were developed, but subsequently dropped from consideration because of environmental and engineering problems. Some of the more significant of the concepts and alternates eliminated from further study are summarized and described as follows.

Alternate 3 resulted from studies to provide missing movements at the U.S. Route $15 / 340$ interchange while eliminating weaving conflicts with the contiguous Maryland Route 180 (Jefferson Pike) interchange to the north. Alternate 3 consisted of replacing the entire Maryland Route 180 interchange with a diamond interchange on U.S. Route $15 / 340$ midway between I-70 and the Mt. Zion Road interchange to the south. The alternate was dropped from further consideration because it did not resolve operational problems on I-70, resulted in significant adverse travel, crossed a major tributary of Ballenger Creek, and cost in excess of $\$ 5$ miliion.

Alternate 5 was an attempt to provide motorists southbound on U.S. Route 15/340 with a directional movement to westbound I-70. The absence of this movement at this interchange requires motorists to travel westerly along U.S. Route 40 through the "Golden Mile," a congested city street, to reach I-70 westbound. Alternate 5 consisted of a westbound outer connection in the northwest quadrant of the Maryland Route 180 overpass of I-70. There are presently no movements provided at this grade-separated intersection. The alternate was eliminated from further consideration because Maryland Route 180 is not designed to accommodate significant additional traffic volumes. In addition, this alternate required residential displacements, was inconsistent with local plans, and constituted an unwarranted additional connection to the Interstate system.

A trumpet interchange at the planned extension of East Street to I-70 was considered during 1979. This interchange was located midway between the existing Maryland Route 85/355 and South Street/Reichs Ford Road interchanges. The interchange consisted of a loop ramp and a direct connection on the south side of U.S. Route 40 in the southwest quadrant and outer connections in both northern quadrants with an additional bridge overpassing I-70. By providing all movements, the existing interchanges at Maryland Route 85/355 and South Street/ Reichs Ford Road would have been redundant. This alternate was dropped from further consideration because it was inconsistent with local plans, significantly reduced local accessibility, resulted in inadequate traffic service, had significant right-of-way impacts, and was not cost-effective. Subsequent to the consideration of this alternate, sinkholes have been studied and identified as a significant probiem in this interchange area. The higher grades required with an overpass of I-70 would have exacerbated the difficulties with sinkholes and precluded further consideration of such an alternate.

Alternate C as presented at the January 1980 Alternates Public Meeting was similar in location, scope, and concept to the above-mentioned trumpet interchange. This alternate consisted of a fully directional interchange with a three-level bridge over I-70 replacing both the Maryland Route 85/355 and South Street/Reichs Ford Road interchanges. This alternate was dropped from further study for the same reasons previously cited for elimination of the trumpet interchange and because of impacts to newly acquired land at the Maryland School for the Deaf, and more severe impacts to an active limestone quarry.

At the Alternates Public Meeting of January 1980, the Informational Public Meeting of June 14, 1984, and the Combined Location/Design Public Hearing of May 28, 1985, several planning concepts were submitted by citizens suggesting additional access points to and from local streets (Maryland Route 180-Ballenger Creek Pike and Jefferson Pike and New Design Road) and I-70. Additional ramps were proposed at Maryland Route 355. These conceptual proposals were eliminated from further consideration for one or more of the following reasons: violation of driver expectancy, safety considerations, unacceptable geometrics, infeasible signing, inadequate weaving or merging lengths, tendency toward congestion, lack of continuity of the local street system, reduction of traffic service, redundancy of movements, inconsistency with local master plans, inappropriate functional classification, and unwarranted access points to the interstate system.
b. Alternates Presented at the Public Hearing

The alternates presented at the May 28, 1985, Combined Location/Design Public Hearing are summarized as follows:

## No-Build Alternate

No major highway construction would occur. Bridge deck replacements, resurfacing, and routine maintenance within the existing right-of-way would continue to be performed as warranted.

## Build Alternates

The seven build alternates are to be considered in three groupings. A complete solution to the I-70 corridor problem consists of an alternate from each of the three groups and a drainage outfall. At the Public Hearing, this Administration identified the preferred alternate in each of the first two groups - an Inside/Outside Widening combination and Alternate 4 for providing missing movements at the U.S. Route $15 / 340$ and I-270/U.S. Route 40 interchanges. At the time, a letter designated alternate was not indicated as being preferred due to the remaining uncertainties associated with sinkhole involvement. These two alternates, plus Alternate $B-1$, and the design and protection of right-of-way for a drainage outfall along Reich Ford Road to the Monocacy River are now the selected alternates. Figures 3 to 6 indicate the various segments of the selected alternate combination. Figure 7 shows the typical sections.

## 1. Widening Alternates

These build alternates include two optional methods of widening I-70 to three lanes to accommodate design year safety and capacity requirements. The inside widening alternate consists of the location of an additional travel lane in each direction within the existing median where possible. The outside widening alternate retains the existing median width and locates the additional lanes outside the present travel lanes. This latter alternate requires more bridge reconstruction and right-of-way acquisition than inside widening. Outside widening is more costly, but retains more median recovery area, has less median barrier length, and preserves an.open rural appearance.

The selected alternate (Figures 3 to 6 ) consists of inside widening from Mt. Phillip Road to I-270/U.S. Route 40 (present median width $\geq 76$ feet) and outside widening (50-foot median width) from I-270/U.S. Route 40 to Maryland Route 144 (East Patrick Street).

## 2. Alternates at the U.S. Route $15 / 340$ and I-270/U.S. Route 40 Interchanges (Figure 4)

This group includes two numbered alternates designated Alternate 2 and Alternate 4, which consist of the reconstruction of these two interchanges to provide most missing movements and the desired resultant accessibility.

Alternate 2 consisted of the addition of most missing movements at these interchanges while requiring reconstruction of the contiguous Maryland Route 180/I-70 interchange.

Alternate 4, the selected alternate, adds the same missing movements as Alternate 2 which are presented below:

- Eastbound I-70 to southbound U.S. Route 15/340;
- Eastbound I-70 to northbound U.S. Route 15/340;
- Northbound U.S. Route $15 / 340$ to westbound I-70;
- Northbound I-270 to eastbound I-70;
- Westbound I-70 to southbound I-270; and
- Southbound U.S. Route 40 to eastbound I-70, a direct connection widened to two 1 anes.
Alternate 4 also adds a ramp from southbound U.S. Route 40 to westbound I-70. Due to its displacement, caused by the new eastbound I-70 to northbound U.S. Route 15/340 loop, the northbound U.S. Route $15 / 340$ to eastbound I-70 outer connection ramp would be reconstructed with both Alternate 4 and Alternate 2 . The existing






## TYPICAL SECTIONS OF IMPROVEMENTS



## I-70 OUTSIDE WIDENING

INTERSTATE ROUTE 270 TO MD. ROUTE 144


Dimensions shown are approximate and ore for the purpose of determining cost estimates and environmental impacts, and ore subject to change during the design phose.

Maryland Route 180 interchange ramps would not be modified as proposed under Alternate 2. Alternate 4 is less disruptive to existing travel patterns and less costly than Alternate 2.

For revisions to Alternate 4 subsequent to the Public Hearing see the description of the selected alternate combination, beginning on page III-20.
3. Alternates at the Maryland Route $85 / 355$ and Reich Ford
Road/South Street Interchanges (Figure 5)

Three lettered alternates were proposed for the reconstruction of these interchanges. Under Alternate $A$, these interchanges would have been reconstructed keeping their present configuration, but expanded to current design standards. Maryland Route 355 would be combined with Maryland Route 85 and realigned through the reconstructed interchange. Other ramps and roadways in this and the South Street/Reichs Ford interchange would be relocated, realigned, or expanded to improve accessibility, travel movement, safety, traffic operations, and interchange geometry.

Alternate $B$ involves the reconstruction of the Maryland Route 85/355 intersection and the southern portions of the Reich Ford Road/South Street and Maryland Route $85 / 355$ interchanges. The northern portions of these interchanges would be removed and replaced by two-lane exit and entrance connections into proposed East Street at Walser Drive. The directional ramps at the East Street interchange would overpass a nine foot by six foot box culvert and a double six foot by six foot box culvert as a part of the drainage outfall system. Maryland Route 914 (Adventist Road) would be realigned to intersect Maryland Route 355 opposite Walser Drive. A connection from Bailes Lane and Maryland Route 144 (East Patrick Street) to westbound I-70 would be provided west of the East Patrick Street bridge to serve anticipated commercial traffic. The configuration of this ramp was recently revised to allow traffic from commercial areas on Bales Lane to directly utilize this connection.

Two optional alignments of extended Waller Drive comprise the variations of Alternate B. With Alternate B-1 (selected), Walser Drive would be extended easterly to South Street opposite Chaws Road. Walser Drive would cross the Frederick Subdivision (spur track) of the Chessie System Railroad and an industrial railroad siding. The Walser Drive/South Street/Shaws Road/railroad intersection would be signalized. Approximately 700 feet of the industrial siding would be removed, resulting in a single at-grade rail crossing.

Alternate B-2 would extend Falser Drive northeasterly to South Street at Franklin Street. Two at-grade railroad crossings would be created requiring protective signalization. Alternate $\mathrm{B}-2$ does not provide continuity for the proposed Monocacy Boulevard, is more costly, requires more displacements, and creates an additional rail crossing as compared to Alternate B-1.

## c. Special Projects

Low cost traffic operational improvements were not considered for this project because they would have been ineffective in achieving project objectives.

## 2. Service Characteristics

a. Traffic Volumes and Service Levels

Peak period traffic volumes presently operate at Levels of Service 'B' and ' $C$ ' throughout the study area (Table 2).

Existing average daily traffic (ADT) volumes along the I-70 study corridor range from 29,000 to 38,000 vehicles, of which trucks constitute approximately 22 percent. Trucks account for approximately 25 percent of the ADT volumes on the Maryland Route 85/355 interchange ramps and up to 33 percent on the ramps of the South Street/Reichs Ford Road interchange. These truck percentages are significantly greater than those on most State highways. During 1986, the Maryland Department of Transportation began issuing permits to overweight containerized cargo haulers only, allowing them to exceed the 80,000 pound maximum gross vehicular weight limit on I-70.

It has been forecaster that traffic volumes will almost double by the design year 2010. Forecaster ADT volumes on I-70 range from approximately 51,000 vehicles east of East Patrick Street to 70,000 vehicles between the U.S. Route $15 / 340$ and I-270 interchanges at I-70. This increase in traffic would cause the Level of Service to deteriorate significantly. If the No-build Alternate was selected, it is predicted that by the design year the study segment of I-70 would operate at Levels of Service 'E' (capacity) or 'F' (forced flow) during peak periods except for the short section between U.S. Route 15/340 and I-270/U.S. Route 40.

The widening alternates would provide peak period Levels of Service 'C' and ' $D$ ' during the design year 2010 for the entire study segment where the improvements are proposed.

TABLE 2

## TRAFFIC SUMAMARY

Interstate Route 70
Mt. Phillip Road to Maryland Route 144 (East Patrick Street)
(Percent Saturation if Level of Service' $\mathrm{F}^{\prime}$ )

| Segments Weaving Areas | Existing |  | 2010 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | NO-BUI LD |  |  | ALTERNATE 2 |  |  | ALTERNATE 4 |  |  | ALTERVATE A |  |  | ALTERNATE B |  |  |
|  | Volume | LOS ${ }^{\text {+ }}$ | Volume | Increase | LOS* | Volune | Increase | LOS ${ }^{\text {c }}$ | Volume | Increase | LOS* | Volume | Increase | LOS ${ }^{\text {c }}$ | Volume | Increase | LOS* |
| Mt. Phillip Rd. to US 15/340 | 30,000 | B | 54,000 | 67\% | E | 62,000 | 106\% | C/E ${ }^{1}$ | 62,000 | 106\% | C/E ${ }^{1}$ |  |  |  |  |  |  |
| US $15 / 340$ to I-270 | 38,000 | B | 70,000 | 84\% | D | 70,400 | 85\% | C | 74,000 | 95\% | C |  |  |  |  |  |  |
| Weaving EB |  | B/C |  |  | D |  |  | D |  |  | D |  |  |  |  |  |  |
| Weaving WB |  | - |  |  | - |  |  | - |  |  | D |  |  |  |  |  |  |
| I-270 to Md. 355 | 36,000 | C | 66,000 | 83\% | $\begin{gathered} \hline \mathrm{F} \\ (\mathrm{i} .19) \\ \hline \end{gathered}$ | 69,000 | 92\% | D | 69,000 | 92\% | D | 69,000 | 92\% | D | 69,000 | 92\% | D |
| lieaving EB |  | - |  |  | - |  |  |  |  |  |  |  |  | D |  |  | D |
| linaving WB |  | C |  |  | ${ }_{(1.26)}$ |  |  |  |  |  |  |  |  | D |  |  |  |
| Md. 355 to South Street | 34,00) | C | 66,500 | 96\% | $\begin{gathered} \mathrm{F} \\ (1.28) \end{gathered}$ |  |  |  |  |  |  | 66,500 | 96\% | D | 66,000 | 94\% | D |
| Heaving EB |  | - |  |  | - |  |  |  |  |  |  |  |  | - |  |  | - |
| Neaving WB |  | - |  | . | - |  |  |  |  |  |  |  |  | - |  |  | D |
| South Street to Md. 144 | 29,000 | B | 51,000 | 76\% | E |  |  |  |  |  |  | 51,000 | 76\% | C | 51,500 | 78\% | C |
| Weaving EB |  | - |  |  | D |  |  |  |  |  |  |  |  | C |  |  | - |
| Weaving WB |  | - |  |  | - |  |  |  |  |  |  |  |  | - |  |  | D |

All volumes expressed in terms of average daily traffic.

* Level of Service during peak hours.

LOS B: Stable flow. Averaçe operating speeds approximating posted limit with volumes about $50 \%$ of capacity.
LOS C: Stable flow. Average operating speeds about 50 NPH with volumes up to $75 \%$ of capacity.
LOS D: Approaching unstable flow. Average operating speeds about 40 MPH with volumes up to $90 \%$ of capacity.
LOS E: Unstable flow at caracity. Average operating speeds in the range of $30-35 \mathrm{MPH}$ with occassional stoppages.
LOS F: Forced flow. Averąe operating speeds below 30 MPil with predominate stop-and-go type operation.
${ }^{1} 2$ lanes eastbound expected to operate slightly over capacity, $v / c=1.12 ; 3$ lanes westbound at stable flow.

## b. Collision Data

I-70, from Mt. Phillip Road to East Patrick Street, experienced 75 reported accidents during the study period from 1980 through 1982. This resulted in an accident rate of 45 accidents per one hundred million vehicle miles (acc. $/ 100$ MVM) of travel. This rate is presently lower than the statewide average accident rate of 67 accidents/100 MVM for highways of similar type and design.

The accident experience at the interchanges throughout the study area (with the possible exception of the I-70/Maryland Route 85/355 interchange) does not indicate any severe accident problems. The reduced accident reporting policy is belfeved to have had an impact affecting the reporting of property damage only accidents in the study section.

The ramp from eastbound I-70 to southbound Maryland 355 qualified as a High Accident interchange ramp during the period from 1980 through 1982. This ramp experienced six accidents in the 3-year period, all of which involved heavy-duty trucks. Overall, 20 percent of the vehicles involved in reported accidents within the study area were heavy-duty trucks; however, heavy-duty trucks account for 22 percent of the total traffic volumes in the study area.

Under the No-build Alternate, the operational deficiences caused by the missing ramp movements would be magnified as the predicted traffic volume increases occur. The existing substandard ramp geometry is also a factor that is critical due to the concentration of heavy-duty trucks using these interchanges. These conditions create the potential for an increased accident experience in the study area if no improvements are made.

The widening alternates consist of the construction of two additional through lanes to the existing four-lane, divided facility. The selected alternate would retain a rural $50-$ foot median width similar in design to the existing highway. Since the accident rate on the existing facility is below the statewide average for this type of highway design, we expect the selected alternate to operate with an accident rate below the statewide average.

This Administration is not aware of any particular safety problems on westbound I-70 from Maryland Route 180 west to Mt. Phillip Road warranting additional safety grading. There is no demonstrated need in this area unique to the westbound roadway, since the eaastbound roadway in this section would not be widened or otherwise improved.

Both Alternate 2 and selected Alternate 4 would add missing ramp movements to the interchanges of I-70 at U.S. Route $15 / 340$ and at I-270/U.S. Route 40. The construction of these ramps would provide additional access to I-70 that is necessary to allow free traffic flow in the area, reducing current traffic demands and conflicts on U.S. Route 40 through Frederick.

Under Alternates $A$ and $B-2$ and selected Alternate $B-1$, the existing ramps at the interchanges of I-70 at Maryland Route 85/355 and at South Street/Reichs Ford Road would be rebuilt, increasing the turning radii in accordance with current design standards. This would provide safer truck movements and also more gradual deceleration for the motorist when exiting from I-70 onto these ramps. Longer acceleration lanes would be safer due to less speed differential among vehicles entering the traffic flow on I-70. All of the proposed build alternates would alleviate operational and/or design deficiences now found on the existing facility. These improvements would reduce the accident potential at the interchanges which have ramps of substandard design, or which are missing ramp movements completely.

## 3. Environmental Consequences

The following discussion summarizes the environmental impacts of the selected alternate combination.
a. Socio-economic and Land Use Impacts

The selected Inside/Outside Widening Alternate for the mainline I-70 would require the displacement of two businesses and Alternate B-l would displace one business. No residences would be acquired. Alternate 4 would not result in any relocation. None of the build alternates would impact any minority, elderly or handicapped individuals or groups. It is estimated that a lead time of 12 months will be needed to successfully complete all relocation in a timely, orderly, and humane manner. All required relocation are expected to be accomplished without any undue hardship to those affected. These relocation will be accomplished in accordance with the requirements of the "Uniform Relocation Assistance and Land Acquisition Policies Act of 1970" (see Appendix).

None of the selected alternates would impact any prime farmland soils.
These alternates also would not affect any public parks or recreational areas. The Frederick County Board of Education has advised this Administration that the portion of East Frederick Elementary School property required by this project is not significant or critical to meeting the recreational needs of the
local community (see letter in the Correspondence Section of this document). No property would be acquired from Loats Park under any of the selected alternates.

The selected alternate combination is consistent with the Frederick City (1979) and Frederick County (1984) Comprehensive Plans.

The proposed project would decrease congestion and improve safety, travel time, and accessibility for local and through traffic.

## b. Historic and Archeological Sites

The State Historic Preservation Officer has determined there would be no adverse effect on Prospect Hall, Linden Grove or Guilford, which are either on or eligible for the National Register of Historic Places. In addition, there would be no effect to Park Hall, which may be eligible for the National Register of Historic Places. No significant archeological sites would be impacted (see letters in the Correspondence Section).

## c. Natural Environment

The Frederick Valley is underlain with soluble limestone strata which has been eroded by natural forces (Karst topography). Certain watershed areas, including portions of $I-70$, discharge their surface runoff into subterranean channels via "sinkholes" which reduce expected surface drainage flow. The reliability of sinkholes as drainage outfalls cannot be accurately predicted. Ongoing development with in the Valley compounds the unpredictability of sinkhole operation.

The continued use of sinkholes as stormwater outfalls in the study area is a major concern. Sinkholes will continue to function as stormwater management outfalls under the selected alternate combination. During the Summer of 1985, Alternate B-1 was modified to achieve increased compatibility with ongoing sinkhole activity.

Impacts to area wildlife and habitat would be minimal. Ongoing residential, commercial, and industrial development has resulted in little remaining natural habitat and wooded areas. Approximately 5.6 acres of urban wildlife habitat would be required.

Most of this habitat is located in the area of proposed construction at the U.S. Route $15 / 340$ interchange with I-70. Inside widening between Mt. Philip Road and I-270/U.S. Route 40 will not impact the existing vegetation near the headwaters of the tributaries of Ballenger Creek.

Modifications to the selected alternate combination since the Public Hearing have not resulted in any significant additional reductions in habitat, as the changes would occur in cleared and cultivated areas. Other development is slated for these areas. There are no known populations of federally listed threatened or endangered species within the study area.

There are no 100-year floodplains within the project area.
Strict adherence to sediment and erosion control plans approved by the Maryland Department of Natural Resources will minimize the effects of construction activities on area streams and water quality. Stormwater management and filtration methods will reduce the amount of roadway pollutants which could enter study area waterways. The filtration methods employed will follow the standards and specifications for infiltration practices issued by the Maryland Department of Natural Resources, Water Resources Administration. The particular methods being considered are all efficient but their use is soll- and site-specific and will be based upon further refinement of the project's design.

Inside widening of I-70 west of I-270 would not affect three of four unnamed tributaries of Ballenger Creek and their associated wetland areas. Between Mt. Phillip Road and the U.S. Route $15 / 340$ interchange at $I-70$, these perennial tributaries cross under I-70 and the median via dual 60 -inch concrete pipes. These structures may require minor alterations. Alternate 4 would require a culvert extension at another small tributary of Ballenger Creek at the U.S. Route 15/340 interchange at I-70. Inside widening in this area will minimize impacts to the wetland adjacent to this tributary. A Department of Natural Resources Waterway Construction Permit and a permit from the U.S. Army Corps of Engineers would be required. Approximately 0.5 acre of palustrine forested wetland will still be required due to construction of a loop ramp and replacement of the outer connection in the southeast quadrant. This wetland was identified by field survey and was not designated on the National Wetland Inventory. The dominant species found in this wetland are red maple and black locust. The wetland functions as a nutrient trap, and provides flood and water dissipation and urban wildlife habitat (songbirds, rabbits, raccoons, squirrels, etc.).

The wetland would be replaced on a l:l basis.

Wetland finding: Based upon the fact that the wetland affected is adjacent to existing right-of-way, it is determined that there is no practical alternative to the proposed new construction in the wetland and that the proposed action includes all practicable measures to minimize harm to the wetland which may result from such use.
d. Noise.

The results of the detailed noise analysis indicate that seven noise sensitive areas (NSAs) would experience design year (2010) noise levels which exceed the Federal Highway Administration (FHWA) L 10 noise abatement criteria ( 70 (BA). One additional NSA will experience noise levels which are greater than 10 ABA over ambient levels, but less than the FHWA criteria. Noise abatement measures were considered to minimize impacts in these areas.

Two of the NSA experiencing noise levels greater than the FHWA abatement criteria do not have identified exterior or frequent uses. These are NSA 3 (I-70 Motor Inn), and NSA 7 (Mt. Olivet Cemetery). Therefore, no noise abatement measures will be considered at these two NSA.

NSA 1
NSA 1, the East Frederick Elementary School, will experience design year noise levels 4 dBA over the FHWA abatement criteria. A barrier to protect the school would be 11 feet high, 1,250 feet long, and cost approximately $\$ 371,000$. A barrier at this location will be studied further during the final design phase. NSA 6
NSA 6, the Seventh Day Adventist Church and School located on Maryland Route 914 (Adventist Drive) will have a projected 2010 noise level, which does not increase ambient noise levels ( 72 dBA ), but exceeds the FHWA abatement criteria by 2 dBA . Noise abatement is not considered because the buildings are air conditioned. The church has no identified exterior or frequent uses, and the playground behind the school is shielded from I-70 for the most part by the school and church buildings. In addition, the playground area is twice as far away from $\mathrm{I}-70$ as is the front of the church closest to the roadway. This doubling of the distance will result in an approximate 3 dBA reduction to approximately 69 dBA , which is below the FHWA noise abatement criteria.

NSA 8
NSA 8, a National Register Historic Site at 5927 New Design Road, is anticipated to experience an increase over ambient $L_{10}$ noise levels of 13 dBA , but will not exceed the FHWA noise abatement criteria. This site is situated approximately 800 feet south of I-70. Because of this setback, a barrier would not result in an effective reduction in projected noise levels. Therefore, mitigation is not recommended.

NSA 10
NSA 10, an apartment house at 6023 Fair Oaks Road, will have a projected 2010 noise level which will exceed the FHWA noise abatement criteria by 6 dEA. To reduce noise levels below the criteria, a noise barrier approximately l,200 feet long and 12-14 feet high would be required. Based on barrier costs of $\$ 27$ per square foot, the cost to provide this protection to two first floor apartments would be approximately $\$ 421,000$. This cost exceeds the maximum cost per residence protected $(\$ 40,000)$ which has been established by this Administration based on housing costs across the state, and is not considered reasonable. A barrier is not recommended.

## NSA 14

NSA 14 consists of four residences in the Tulip Hill subdivision (6026 Fairfax Court is representative). NSA 14 would have a projected 2010 noise level which would exceed the FHWA noise abatement criteria by 6 dBA. Protection of these residences would require a barrier approximately l,050 feet long and 14 feet high at a cost of approximately $\$ 397,000$ ( $\$ 99,225$ per residence). A barrier is not considered reasonable at this location and is not recommended.

NSA 15
This NSA, a residence located east of Mt. Phillip Road and contiguous to the north side of I-70, will have a projected 2010 noise level of 8 aBA above the FHWA abatement criteria. A barrier 720 feet long and 14 feet high at a cost of approximately $\$ 272,000$ would be required to reduce the projected noise levels 7-10 dEA. Constructing this barrier for one residence is not considered reasonable.

The results of these analyses are contained in the Noise Report which is available for review at the State Highway Administration, 707 North Calvert Street, Baltimore, Maryland 21202.

This project is consistent with the State Implementation Plan.

## e. Air Quality

A detailed microscale air quality analysis for the selected alternates also has been performed. No violations of the l-hour or 8-hour State/National Ambient Air Quality Standards for carbon monoxide will occur with the alternates in the completion year (1990) or in the design year (2010). The results of the air quality analysis are also available for review at the State Highway Administration in Baltimore.

## 4. Significant Features of the Alternates

## a. Sinkholes and Outfalls

Several sinkholes have been located within the project limits between Maryland Route $85 / 355$ and Maryland Route 144 (East Patrick Street). The more significant sinkholes, in terms of this Project Planning study, are north of I-70 along the proposed extension of Walser Drive. Selected Alternate B-l has been modified to reduce impacts to ongoing sinkhole activity.

During August 1984, the Sinkhole and Storm Water Management Study Along Interstate Route 70 between Mt. Phillip Road and Maryland Route 144 report was prepared by Greiner Engineering Sciences, Inc. This report summarized the results of a preliminary hydrologic/hydraulic study of the sinkholes and alternative drainage outfalls.

The State Highway Administration's Bureau of Soils and Foundations prepared a Sinkhole Study report in May 1985, summarizing a geophysical investigation of the problematic area. The geophysical report indicated that it was doubtful the sinkholes would completely malfunction and concluded that the then preferred alternate (specifically Alternate B-1) was feasible. However, an alternate outfall was preferred over the use of sinkholes as stormwater outfalls and certain active sinkhole areas should be avoided to reduce the risk of roadway damage. In response to these reports the East Street interchange ramps and Walser Drive have been realigned to minimize conflict with sinkholes.

A drainage outfall to the Monocacy River via Reichs Ford Road has been selected to transport stormwater runoff from the sinkhole area (see Figures 5 and 6). The outfall would extend from the vicinity of existing Walser Drive along the north side of I-70 in an open channel to Reichs Ford Road, then follow the alignment of Reichs Ford Road in a 5,800 linear-foot, l20-inch pipe culvert and a 2,200-1inear foot channel to the Monocacy River.

Design phase activities will include the design of the outfall to the extent necessary to prepare right-of-way plats. Right-of-way acquisition would occur on a contingency basis and only as necessary to protect the proposed right-of-way and/or easements associated with the selected drainage outfall. Construction of this outfall, once development has taken place in the corridor, could be a very expensive alternate. The construction of this outfall would be required in the unlikely event of a total failure of the natural underground drainage system and requires participation of the City of Frederick and Frederick County.

Implementation of generous stormwater management measures in combination with sinkhole preservation measures may contribute significantly toward continued functioning of the sinkholes and construction of the outfall to the Monocacy River may not be required with initial construction. The estimated cost of the drainage outfall is $\$ 6.4$ million.

This Administration is discussing the possibility of assuming responsibility for implementation of the City's proposed East Street extension from I-70 to Maryland Route 144 (East Patrick Street); see letter dated January 13, 1987, in Section V-C. The East Street corridor is a possible alternative routing of the drainage outfall. Should this segment of East Street become a part of the State secondary highway system, detailed studies of the feasibility of such a drainage outfall route will be undertaken during the design phase.

## b. Structures

Thirteen existing bridges are affected by this project and two new bridges are required. These bridges as well as retaining walls and other structures are listed in Table 3, along with a brief description of improvements required by the selected alternate combination.

One additional retaining wall, identified in the Environmental Assessment to avoid a stone washhouse and encroachment on a residence, is no longer proposed. The washhouse, at one time thought to be historic, was determined not to be significant and no longer necessary to avoid. It and the house, both owned by Genstar Corporation, are on land likely to be developed for commercial purposes. In addition, the cost to construct the retaining wall far exceeded the cost to purchase the washhouse and additional right-of-way.

TABLE 3
bRIDGES AND RETAINING WALLS, SELECTED ALTERNATE COMBINATION

| BRIOGE NUMBEER | LOCATION | PROPOSED ACIION |
| :---: | :---: | :---: |
| 10144 | MD Route 180 (Jefferson Pike) over I-70 | Construct retaining wall at apartment house, 180 LF. |
| 10142 | I-70 over Ramp $A$ at U.S. Route 15/340 | Widen bridge in median. |
| 10141 | I-70 over U.S. Route 15/340 | Redeck both bridges, widen WBR in median, widen EBR. Construct 120 LF retaining wall under bridge. |
| 10143 | Ramp A over U.S. Route 15/340 | Widen to accommodate extended outer connection. Construct 275 LF retaining wall at Maryland Route 180 loop. |
| 10140 | Ramp A over MD Route 180 (Ballenger Creek Pike) | Widen to accommodate extended outer connection. |
| - | WB to SB I-270 loop over SB U.S. Route 40 to EB I-70 direct connection | Construct new bridge, 200 LF retaining wall along U.S. Route 40 SBR, and 220 LF retaining wall between ramps. |
| - | Outer connection (U.S. 15/340 NB to I-70 EB) over MD Route 180 (Ballenger Creek Pike) | Construct new bridge. |
| 10128 | I-70 over MD Route 180 (Ballenger Creek Pike) | Widen WBR in median, redeck both bridges. |
| 10138 | I-70 WBR over U.S. Route 40 EBR | Bridge replacement. |
| 10137 | I-70 WBR over I-270 (U.S. 40) | Widen bridge both sides. |
| 10103 | I-70 EBR over I-270 (U.S. 40) | Widen bridge both sides. |
| 10122 | I-270 WBR over I-70 EBR | Bridge replacement. |
| 10123 | I-270 WBR over New Design Road | Widen bridge to outside. |
| 10104 | New Design Road over 1-70 | Bridge replacement. Construct 80 LF retaining wall at Mt. Olivet Cemetery. |
| 10105 | MD Route 355 over I-70 | Bridge replacement. Includes 511 LF retaining wall at Knights Inn. |
| - | Box culverts at East Street interchange | $\begin{aligned} & 9 ' \times 6^{\prime} \times 170 \mathrm{LF} . \text { Double } 6^{\prime} \times 6^{\prime} \\ & \times 300 \mathrm{LF} . \end{aligned}$ |
| 10106 | I-70 South Street and Chessie System Rail road | Bridge replacement. Includes 1,080 LF of 120" RCCP for drainage outfall. |
| 10107 | MD Route 144 (East Patrick Street) over I-70 | Construct retaining wall at Tulip Hill subdivision, 290 LF. |

## c. Frederick City's Southern Water Loop

Frederick City's Southern Water Loop, a 20-inch water main, is located along the north side of $I-70$ through a segment of the project area from west of Mt. 01 ivet Cemetery to South Street.

This water line is located within the SHA right-of-way in the vicinity of Mt. 01 ivet Cemetery. This segment will not be disturbed by the I-70 project.

The water loop extends eastward between Maryland Route 355 and South Street. This portion of the water main which has prior rights would be relocated and/or sleeved in accordance with the Administration's Policy on the Accommodation of Utilities on State Highway Rights of Way to allow for construction of the East Street interchange (selected Alternate B-l).
d. Eastbound Roadway from Mt. Phillip Road to Jefferson Pike

Eastbound I-70 from Mt. Phillip Road to Maryland Route 180 (Jefferson Pike) is proposed to remain as a two-lane facility with the selected alternate combination. Although traffic forecasts indicate the two-lane eastbound roadway cannot adequately handle the anticipated design year traffic volumes (Level of Service 'E') along this segment, the existing two-lane roadway from Catoctin Mountain westerly serves as a constraint to traffic flowing eastbound.

## 5. Implementation Costs

The estimated costs of the various build alternates in 1984 dollars are listed in Table 1 . These are total costs including construction engineering, administrative and overhead additives ( 10.5 percent), and right-of-way with administrative and overhead costs ( 9.3 percent). The total estimated cost of the selected alternate combination in 1986 dollars is $\$ 60,714,000$, broken down as foll lows:

| Structures | $\$ 21,449,000$ |
| :--- | ---: |
| Roadway | $32,720,000$ |
| Right-of-Way | $6,545,000$ |
| TOTAL | $\$ 60,714,000$ |

## C. Positions Taken

1. Elected Officials

The Mayor and Board of Aldermen of the City of Frederick recorded their support of the selected alternate combination by letter dated July 31, 1984.

Subsequently, Mayor Ronald N. Young submitted further comments, by letter dated September 10, 1984, reflecting recommendations previously offered by

Mr. J. William Brosius. These comments would require the proposed northbound I-270 to eastbound I-70 outer connection be realigned to the east edge of New Design Road to allow motorists a direct connection from I-270 to New Design Road as an entrance way into the City of Frederick. By letter dated September 26, 1984, the Board of County Commissioners concurred with the City's suggestion. The Project Planning Team cannot concur with this suggestion chiefly because it would create a hazardous weaving area on New Design Road, require unwarranted right-of-way acquisition, create safety and operational problems on I-70, and require denial of access on New Design Road from I-270 to I-70.

Mayor Young, on behalf of the City of Frederick, recommended consideration of an alternative drainage outfall from the sinkhole areas northerly to Carroll Creek rather than southerly via Reich Ford Road to the Monocacy River. His recommendations were sent by letter dated October 22, 1984, to Secretary William K. Hellmann. In a meeting on July 16, 1985, Mayor Young reiterated his strong opposition to any southerly drainage outfall route to the Monocacy River.

By letter dated July 11, 1985, Delegate Thomas H. Hattery advised Secretary William K. Hellman of his concurrence with the endorsement of improvements to I-70 on behalf of the Chamber of Commerce of Frederick County.

By letter dated November 5, 1986, the Frederick County Board of County Commissioners expressed their support for the recent design modification to the selected alternate combination.

These letters may be found in the Correspondence Section of this document.

## 2. Citizens

Citizen comments resulting from the May 1985 Public Hearing were generally supportive of the need to improve I-70 and the selected alternate combination.

Three business properties on the east side of Maryland Route 355 immediately south of $I-70$ would be adversely affected in terms of accessibility. These businesses are: I-70 Exxon, Beckmont Corporation, and Francis Scott Key Lincoln/ Mercury/Isuzu. The owners of these properties have indicated their displeasure with the reduced accessibility associated with the proposed highway improvements. A meeting was held with these businesses on October 3, 1984, to discuss their concerns. Additional studies have failed to produce significant accessibility improvements without reducing overall travel efficiency and safety.

Mr. J. William Brosius has submitted a number of planning concepts over the years intended to create supplemental southern entrance ways into the City of Frederick, via I-270 to New Design Road. These proposals have been rejected for the reasons cited on pages III-4 to III-5 and III-20 of this document.

Mr. Robert W. Lanham, on behalf of the Frederick King Partnership, recommended additional access to I-70 from Maryland Route 180 (Ballenger Creek Pike) and from I-70 to Maryland Route 180 (Jefferson Pike), which would facilitate rezoning of that property from residential to commercial use. See page $V-9$ of this document for disposition of this recommendation, part of which has been incorporated into the selected alternate combination.

The Solarex Corporation recommended Alternate 4 by letter dated July 23, 1984.
3. Agencies

The City of Frederick has indicated concern that Loats Park be safeguarded from unwarranted highway intrusions that might inhibit development of the Park and the contiguous Jeanne Bussard Training Workshop for the Handicapped. At the Public Hearing a suggestion was made for a northerly relocation of Walser Drive that would have separated Loats Park from the proposed Jeanne Bussard Workshop and encroached on the Maryland School for the Deaf. Both the City of Frederick and the Maryland School for the Deaf strongly opposed such encroachments.

The Maryland Department of Natural Resources indicated their concern for resolution of the sinkhole/drainage outfall problem and related groundwater quality issues including erosion and sediment control and stormwater management. The Maryland Department of Natural Resources, Tidewater Administration indicated a preference for inside widening and Alternate A by memorandum dated June 29, 1984.

## D. Recommendation

## 1. Recommendation and Supporting Reasons

The Project Planning Team recommended the following alternate combination for design and construction: inside widening of I-70 from Mt. Phillip Road to I-270/U.S. Route 40; outside widening from I-270/U.S. Route 40 to Maryland Route 144 (East Patrick Street); Alternate 4; Alternate B-l; and the design of and protection of the right-of-way for a drainage outfall to the Monocacy River via Reichs Ford Road. The mainline of I-70 is to be designed for 70 mph with full access controls.

Inside widening is preferable between Mt. Phillip Road and I-270 because an ultimate 50-foot rural median (minimum) would be provided throughout this segment, negligible right-of-way would be required and inside widening would be less costly. Outer safety grading is not recommended west of Maryland Poute 180 (Jefferson Pike).

Outside widening between I-270 and East Patrick Street with safety grading is preferable because it preserves the rural appearance, provides more median recovery area and increased safety, and provides for better system continuity. Inside widening would have required a continuous concrete median barrier 2 miles in length between New Design Road and East Patrick Street. The City of Frederick prefers retaining the rural appearance of the highway because it is more consistent with the historical character of the City. The additional cost of the outside widening is warranted to provide an additional measure of safety and aesthetic benefit.

Alternate 4 was determined to be the more cost-effective method of providing the missing movements at the U.S. Route $15 / 340$ interchange and the I-270/ U.S. Route 40 interchange while providing essentially the same accessibility as Alternate 2. Construction of Alternate 4 would cause less disruption to existing travel patterns and would require less maintenance of traffic than Alternate 2.

Subsequent to the May 1985 Public Hearing, Alternate 4 was restudied to eliminate a potentially hazardous weaving area along the westbound roadway of I-70 between the U.S. Route $15 / 340$ and I-270/U.S. Route 40 interchanges. To improve safety and travel efficiency on adjacent project elements, consideration was given to maintaining a desirable design speed for the westbound I-70 to southbound I-270 loop. This action improves the design of the southbound U.S. Route 40 to eastbound I-70 direct connection, improves compound weaving conditions along southbound U.S. Route 40, and minimizes additional right-of-way required from the Frederick Commons (industrial) property (formerly Solarex Corporation). The revision consisted of modifications to three ramps cone existing, two proposed) at the I-270/U.S. Route 40 interchange.

The southbound U.S. Route 40 to westbound I-70 outer connection continues westerly along but separated from I-70 and contiguous to the westbound I-70 to southbound U.S. Route $15 / 340$ direct connection, overpasses Maryland Route 180 (Ballenger Creek Pike) and U.S. Route 15/340, and ties into I-70 at the Maryland Route 180 (Jefferson Pike) overpass. This single lane outer connection is 6,075
feet ( 1.15 miles) long. To eliminate one of the weaving movements along southbound U.S. Route 40 the entry into this outer connection from the adjacent northbound U.S. Route $15 / 340$ to southbound U.S. Route 40 outer connection in the Jefferson Street interchange is separated from the southbound roadway of U.S. Route 40 by means of a barrier. Thus, traffic coming from the Maryland Route 180 interchange and desiring to proceed southbound along U.S. Route 40 and I-270 toward Washington, D.C., will have to proceed northbound on U.S. Route 15/340 and execute a left turn into a proposed spur to the southbound Jefferson Street to southbound U.S. Route 40 loop ramp in the Jefferson Street interchange.

Although the selected left turn movement from northbound U.S. Route $15 / 340$ is expected to operate well up to the design year, we recognize that the City of Frederick has sustained a large increase in population in the period since 1980 and significant growth is planned along Maryland Route 180 which could conceivably require signalization of the new intersection in the long term. With this eventuality in view, a loop ramp is proposed from Maryland Route 180 (Ballenger Creek Pike) into the northbound U.S. Route $15 / 340$ to eastbound I-70 outer connection. This supplemental loop ramp would be constructed only when the need arises but right-of-way would be acquired with initial construction stages. The southbound U.S. Route 40 to eastbound I-70 direct connection is realigned as a two -lane roadway from its takeoff point to its connection into I-70, minimizing the effect of the reversing horizontal curvature. These revisions require widening of three additional bridges: southbound U.S. Route 40 to westbound I-70 outer connection over Maryland Route 180 (major widening of bridge no. 10140 over Ballenger Creek Pike), the same outer connection over U.S. Route 15/340 (major widening of bridge no. 10143), and the relocated northbound U.S. Route 15/340 outer connection over Maryland Route 180 (Ballenger Creek Pike).

An assessment of these changes relative to environmental concerns indicated that these modifications would not result in any significant impacts to the environment.

These modifications to Alternate 4 , which were incorporated into the selected alternate combination, incurred changes in the right-of-way requirements with respect to the Environmental Assessment and the exhibits at the May 1985 Public Hearing. Right-of-way acquisition in the additional amount of approximately 4.26 acres would be necessary on the north side of I-70 between Maryland Route 180 (Jefferson Pike) and the U.S. Route 15/340 interchange.

Additional right-of-way in the amount of approximately 7.20 acres would also be required along the west side of Maryland Route 180 (Ballenger Creek Pike) from the proposed Hannover residential subdivision. Both parcels are unimproved.

The revised configuration of selected Alternate 4 is estimated to add the following total costs to the project in terms of 1986 dollars:

| Right-of-Way | $\$ 251,000$ |
| :--- | ---: |
| Roadway | $1,666,000$ |
| Structures | 884,000 <br> TOTAL |

The above represents an increase of 4.4 percent of the project costs and would tend to reduce the number of construction stages from three to two.

Alternate $B-1$, revised to avoid sinkhole encroachment, is selected as the method of reconstructing the interchanges at Maryland Route 85/355 and at South Street/Reichs Ford Road based on its superior compatibility with the planned local street system. Alternate $\mathrm{B}-2$ would have directed commercial traffic into a partially residential area. Alternate $A$ was not selected due to its Section 4(f) involvement with Loats Park.

The design of a channel and culvert outfall to the Monocacy River via Reichs Ford Road has also been selected.

During the subsequent design phase, the major at-grade intersections would be subject to a detailed operational analysis, especially the major intersections on Maryland Route 355 and the proposed East Street/Walser Drive interchange ramp intersection.

## 2. Construction Staging

This project is to be implemented as two construction projects. The first contract would extend from Mt. Phillip Road to west of Maryland Route 355, a distance of approximately 4.01 miles , and would provide missing movements at the U.S. Route $15 / 340$ and the I-270/U.S. Route 40 interchanges. This contract includes construction of six retaining walls and work on thirteen bridges, most of which require widening to accommodate additional lanes on I-70. Design activities are in progress for this contract and it is expected that the contract will be advertised for construction bids during early calendar year 1990. The roadway associated with the supplemental loop ramp from Maryland Route 180 (Ballenger Creek Pike) to eastbound I-70 could be incorporated into the first contract.

The second contract would extend from west of Maryland Route 355 to Maryland Route 144 (East Patrick Street), a distance of 1.32 miles. This contract would reconstruct the interchanges at Maryland Route 355 and South Street/Reichs Ford Road with relocation of certain movements to the interchange with proposed East Street. The bridges at Maryland Route 355 and South Street/Reichs Ford Road would be replaced and two retaining walls would be constructed. Because this contract is located in the area of active sinkholes certain elements of the proposed drainage outfall would be constructed and the right-of-way for the outfall would be protected. It is anticipated that this contract will be advertised for construction bids during early calendar year 1991.


## IV. PUBLIC HEARING COMMENTS

A Combined Location/Design Public Hearing was held for the project on May 28, 1985, at 7:30 p.m. in the West Frederick Middle School in Frederick, Maryland. The purpose of this hearing was to present the results of the engineering and environmental studies and to receive public comment on the project. Approximately 100 persons attended the hearing and nine individuals made statements following the presentation by State Highway Administration personnel.

Seven build alternates, considered in three groupings, were presented. The build alternates included two widening alternates (inside and outside), two alternates (numerical designations) for providing missing movements and associated reconstruction of the U.S. Route $15 / 340$ and I-270/U.S. Route 40 interchanges, and three alternates (letter designation) for the reconstruction of the geometrically deficient Maryland Route 85/355 and Reich Ford Road/South Street interchanges. A build solution would consist of an alternate from each of these three groups, plus a drainage outfall to the Monocacy River.

The following is a summary of the statements made at the hearing and the responses given by the State Highway Administration. A complete transcript of the hearing is available for review in the Project Development Division Offices, State Highway Administration, 707 North Calvert Street, Baltimore, Maryland 21202. Written comments received after the Public Hearing are discussed in the Correspondence Section of this document.

1. Mr. Miles Circo, Oakcrest Limited Partnership (Morgan Keller, Inc.), developers of the Patrick East Business Center.

Comment:
Mr. Circo cited the advantages and disadvantages of Alternates A and B. He endorsed Alternate $\mathrm{B}-1$ due to fewer community impacts. He also stated that Alternate A goes through a building which is part of the Patrick East Business Center, located on Shaw's Road. This building was not included in the right-ofway estimates for Alternate $A$. This alternate also would impact the entire business park and affect its access. He stresses that the sinkhole problem must be addressed as part of any of the alternates.

## SHA Response:

Selected Alternate $\mathrm{B}-1$ has been modified and now terminates at South Street. Therefore, there will be no construction east of South Street along Shaw's Road and no effects to the business park.

Sinkholes function as stormwater and surface runoff outfalls and are expected to continue functioning in this capacity. In the event sinkholes cease to effectively function, a drainage outfall would be constructed along Reich Ford Road to the Monocacy River with the participation of local governments.
2. Mr, J, William Brosius, 6600 Plantation Road, Frederick.

Comment:
He contends that traffic congestion on Maryland Route 85 is getting worse. He suggests relocating the northbound I-270 to eastbound I-70 outer connection east of New Design Road. Thus, traffic desiring to enter Frederick City would be able to do so without traveling along congested Maryland Route 85 and utilizing the interchange at Maryland Route 85 and I-70.

He prefers either Alternate B-1 or Alternate B-2 to Alternate A, because they relocate certain movements to an East Street interchange. However, he recommends additional ramps at the East Street interchange.

## SHA Response:

Alternate $B-1$ is one element of the selected alternate combination. Mr. Brosius' two design proposals have been analyzed by this Administration and were found to have significant design difficulties that precluded further consideration.

These proposals were not consistent with current design standards, required additional right-of-way, were not cost-effective, created safety and operational problems on I-70, caused additional weave problems, and in the area of the East Street interchange, involved more extensive sinkhole impacts.

At the time of the Public Hearing Maryland Route 85 was a two-lane highway. Subsequently, Maryland Route 85 has been widened to a four-lane street between I-270 and Maryland Route 355.
3. Mr, Peter Stancioff, 304 Rockwell Terrace, Frederick (advocate of Mrs. Eleanor Brooke Conley Lee).

## Comment:

Mr. Stancioff endorses Alternate B-1 as proposed and amended by Mr. Brosius (relocating several movements from the Maryland Route 85/355 interchange to the East Street interchange) due to increasing traffic congestion, especially trucks. He believes that this proposal provides good access into Frederick City and channels truck traffic into the Truck Stop, while avoiding the congested Maryland Route 85/ I-270 interchange.

He also stated that the sinkhole problems should be resolved by the State.

He further asserts that proposing an interchange on Mrs. Lee's undeveloped property takes undue advantage of her considering the significant loss of her land during the initial construction of $\mathrm{I}-70$ (in the mid 1950's).

## SHA Response:

Alternate $B-1$ is one element of the selected alternate combination. The additional modifications to Alternate $\mathrm{B}-1$ as proposed by Mr. Brosius and endorsed by Mr. Stancioff were found to have design deficiencies as cited in the response to Mr. Brosius' comments.

The Alternate $B-1$ alignment was recently shifted to avoid and minimize impacts to existing sinkhole development.

The operational deficiencies and increasing traffic and congestion at the Maryland Route 85/355 interchange at I-70 necessitate the reconstruction of the southwest quadrant of this interchange to modern design standards and subsequent right-of- way acquisition to accommodate these improvements.
4. Dr. Roscoe Bartlett, representing the Seventh Day Adventist Church, 80 Adventist Road (Maryland Route 914), Frederick.

Conment:
Dr. Bartlett suggests a northerly relocation of Walser Drive proceeding westerly along the boundary between the Maryland School for the Deaf and the Noland Company, crossing Maryland Route 355 and continuing westward to New Design Road along the boundary between Loats Park and the proposed Jeanne Bussard Training Workshop for the Handicapped, a cul-de-sac of Adventist Road, and abandonment of the northern portion of New Design Road. A majority of traffic would then utilize New Design Road, rather than Adventist Road in front of the church.

## SHA Response:

Alternates $B-1$ and 4 are two elements of the selected alternate combination. Relocating Walser Drive to the north would require property acquisition from Loats Park and is inconsistent with the City of Frederick's plans for the area. The City has indicated that Loats Park be safeguarded from highway intrusions that might inhibit development of the Park and the adjacent Jeanne Bussard Training Workshop. In addition to impacts to Loats Park, a relocation of Walser Drive to the north would possibly impact and endanger the special populations at the Maryland School for the Deaf and Jeanne Bussard Training Workshop for the Handicapped.
5. Mr. Joseph Crews, Amazing Facts, Inc., 100 Adventist Road, Frederick. Comment:

Mr. Crews endorses the recommendations made by Dr. Bartlett. His broadcasting/publishing business, too, is located on Adventist Road, next to the Church. He believes it is a good idea to put traffic on New Design Road, rather than have it pass in front of the Amazing Facts building and the church on Maryland Route 914.

## SHA Response:

Alternate B-1 and 4 are two elements of the selected alternate combination. See response no. 4.
6. Mr. Kingsley Whitsett, Pastor of the Seventh Day Adventist Church, Frederick.

## Comment:

He recommends inside widening of I-70 between I-270 at least to Maryland Route 355, due to perceived adverse effects (i.e., noise) on the church and Amazing Facts, Inc.

## SHA Response:

Outside widening has been selected in the vicinity of the church property to maintain a rural appearance ( 50 foot grass median), in accordance with the desires of Frederick City and County to maintain the historic character of the area. The segment of $\mathrm{I}-70$ opposite the church would be reconstructed and shifted south. However, outside widening would result in the reconstructed roadway being essentially the same distance from the church as the present roadway.

Technical air quality and noise analyses were completed utilizing the Seventh Day Adventist Church as one of the receptor locations. The results of the air quality analysis indicated no violations of National or State Ambient Air Quality Standards.

Noise level predictions for the design year 2010 indicate no change from ambient noise conditions at the church under both the Build and No-build Alternates. Both the ambient and predicted noise levels exceed the $L_{10}$ Federal Highway Administration noise abatement criteria by 2 dBA . However, the church does not have any identified exterior or frequent uses and is air conditioned. Noise abatement is not recommended. The adjacent school is likewise air conditioned and its associated playground is shielded for the most part from

I-70 by the church and school buildings. A reduction in noise levels is also expected due to the playground's greater distance from I-70.
7. Mr. Herbert Cohen, Carroll Construction Company, Reichs Ford Road, Frederick.

Comment:
Mr. Cohen expressed a preference for Alternate $B-1$. He disagreed with Mr. Brosius' suggestion regarding eastbound traffic south of I-70. He believes that truck traffic would back up near the Truck Stop and interfere with all traffic.

## SHA Response:

Alternate $\mathrm{B}-1$ is one part of the selected alternate combination. Access to the Truck Stop would be provided via the Maryland Route $85 / 355$ and proposed East Street interchanges with I-70. Alternate B-1 would ease truck traffic congestion on Maryland Route 355 near the Truck Stop and improve traffic safety and service. Under the selected alternate, truck traffic from I-70 would access the Truck Stop via either Walser Drive or the exit ramp from eastbound I-70 to Maryland Route 355. This Administration does not concur with Mr. Brosius' suggestions due to operational design deficiencies.
8. Mr. Charles Whieldon, 1630 Gibbons Road, Point of Rocks.

## Comment:

Mr. Whieldon concurs with Dr. Bartlett's suggestion and favors Alternate $\mathrm{B}-1$. He is concerned about the proposed reduction in weave lengths along I-70 eastbound from U.S. Route 15/340 to I-270.

## SHA Response:

See response no. 4. This portion of I-70 was built to older design standards with closely spaced interchanges. Although a longer weaving area would be desirable, the proposed weaving area is predicted to operate with conditions only slightly more restricted than those found under free flow conditions without weaving (Level of Service 'B').
9. Mr. Peter Adcock, representing Francis Scott Key Lincoln/Mercury/Isuzu, 6001 Urbana Pike, Frederick.

Comment:
Mr. Adcock stated that the proposed access road to the three businesses located along the east side of Maryland Route 355 immediately south of I-70 is unacceptable. He believes that such a plan would have adverse impacts (i.e., loss of business due to reduced accessibility) on his and other businesses at this location.

## SHA Response:

The traffic complexities of the Maryland Route $85 / 355$ intersection and adjacent interchange at I-70 warrant reconstruction at this intersection and the use of the proposed frontage road to access these businesses. Additional studies to improve the proposed situation have failed to produce significant accessibility improvements without reducing overall travel efficiency and safety.

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CORRESPONDENCE

## A. Written Comments Received Subsequent to the Location/ Design Public Hearing, May 28, 1985, and Responses

STATE HIGHWAY ADMINISTRATION QUESTIONS ANDIOR COMMENTS

INTERSTATE ROUTE 70
MT. PHILLIP ROAD TO MARYLAND ROUTE 144 CONTRACT NO. F 866-101-779 :1..

PDT NO. 101007
LOCATION/DESIGN PUBLIC HEARING

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\text { MAY 28, } 1985
$$

Thanks for the ${ }^{\text {MAX } 28,1985} 5 / 28^{\text {meeting! }}$
name Sherry o sidney Juhinson_onte 5/29/85


I/We wish to comment or inquire about the following aspects of this project: We favora build alternative. Living whereviado, par mijorconcerns are: i) to reduce $S_{\text {auth }} S t$. traffic(esperally tracks); and 2) reduce congestion at 85/355-I70. Among the given alternatives we believe 4 B-1 best addresses these concerns -by a wile margin. We feel it very important to have Walser Dr built by the state and intersect South Stat Shows Rel and to have the I70 access to East St. Wealso feel the suggestion to make complete interchange at $E$ oast - I70 is a good one since it would probably help congestion at 85/355-70 and it seems we are paying now for having tackled such problems in a half-way manner in the past, The proposed $85 / 355-70$ interchange in bott, $A$ o $B$ still seems to be a horror and the proposal in $A$ to funnel more traffic to $N D R Q$, by closing 914 seems out of the question unless ND RR+ 355 intersection is relocated. As far as sinkholes are concerned, they should be dealt with in a permanent way. Operating ab the 2 of ubare with engineering ignorance, we feel if you can build underwater tunnels and overwatter brides, you can solve a sinkhole problem. Even if it does requiremoremoney. We feel this whole project should be pushed and pushed to be done as quickly as possible and hopefully this will encourage the City to do it's part quickly with the East st extension.
$\qquad$
$\qquad$
$\square$ I am currently on the Mating List.
X. Please add mylour name (s) to the MaIling List.

SHA Response to Mr. and Mrs. Johnson:
Alternates 4 and $B-1$ are two aspects of the selected alternate combination. The sinkholes are a natural occurrence, resulting from erosion of soluble substrata. These sinkholes function, and are expected to continue to function, as drainage outfalls for filtered stormwater and surface runoff. In the event these outfalls should cease to function effectively, a drainage outfall to the Monocacy River would be built along Reichs Ford Road.

The project is currently included in the State's Consolidated Transportation Program. Project planning (present studies) is funded through FY 1986. Engineering and final design are funded through FY 1990. Depending on the availability of funds, this project will be eligible for inclusion in future programs for right-of-way acquisition and construction.

FRANCIS SCOTT KEY LINCOLN/MERCURY/INC. FRANCIS SCOTT KEY LINCOLN/MERCURY/ISUZU

May 29, 1985

Mr. Wayne R. Clingan
District Engineer
State Highway Administration
P.O. Box 308

Frederick, Maryland 21701

RECEIVED

JUN 81985
fhlGHWAY DUSHACT ETGINEER

Reference: Project \#F-866-101-772
Dear Sirs:

This letter is in response to your public hearing held on May 28, 1985, in Frederick, pertaining to proposed changes to the I-70 Interchange.

My business and property known as Francis Scott Key LincolnMercury, Inc., will be adversely affected by what you plan to do with the intersection of state routes 85 and 355.

I am a small business man and am not going to financially be able to withstand the following.
*Long term disruption of my business due to major construetion to this intersection.
*Limiting access to my property to north bound 355 traffic only.
*Use of an access road as opposed to direct entrance.
*placing me on the end of a spur line.
The only two alternative solutions that you have to this problem are:
*De-acceleration and left turn lane from south bound MD route 355. Demacceleration lane and direct access from north bound lanes. (no access road)
*Relocation of my business to another acceptable proparty.

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\begin{aligned}
& \text { Please try to see this from my side. It is tough enough to } \\
& \text { operate an automobile dealership with excellent visability } \\
& \text { and easy access, both of which I enjoy now. You cannot just } \\
& \text { take those things from me. } \\
& \text { There is no need at this point for me to acquire legal coun- } \\
& \text { cil and I certainly hope to hear from you soon. As you said } \\
& \text { in your meeting, I hope we can work this out on a friendly } \\
& \text { basis. } \\
& \text { MJA/tlb } \\
& \text { C.C. Governor Harry Hughes }
\end{aligned}
$$

SHA Response to Marvin J. Adcock:
Traffic complexities, poor geometrics, and an increased potential for accidents warrant reconstruction of the Maryland Route 85/355 intersection and adjacent interchange at $\mathrm{I}-70$. This reconstruction west of the existing intersection would require a frontage road in front of Adcock's and two other businesses to provide access. Both access from the northbound and southbound lanes of Maryland Route 355 and visibility would be maintained.

Additional studies were completed after the Public Hearing to examine ways to improve the access as proposed at the Hearing. These studies failed to produce significant accessibility improvements without reducing overall travel efficiency, safety, and operations.

# STATE HIGHWAY ADMINISTRATION QUESTIONS AND/OR COMMENTS 

INTERSTATE ROUTE 70

## MT. PHILLIP ROAD TO MARYLAND ROUTE 144 <br> CONTRACT NO. P 866-101-772 <br> PDMS NO. 101007 <br> LOCATION/DESIGN PUBLIC HEARING <br> MAY 28, 1985

name Curtis + The da W. Mable


PLEASE PRINT adDREss 20 Fran $K$ lin Street city/town Fredericte_state MD zip codedinol We wish to comment orate about the following aspects of this project:


SHA Response to Mr. and Mrs. Mable:
Alternate $B-1$ is one segment of the selected alternate combination. This alternate, revised to minimize sinkhole encroachment, was chosen based on its superior compatibility with the local street system and less impacts to industrial development in the Patrick East Business Park (and less right-of-way costs).

By comparison, Alternate A would have impacted an area containing extensive sinkhole development, acquired more overall right-of-way, and cost more, denied access on New Design Road (Mary and Route 914), and affected Loads Park and the Park Hall historic site.

I am currently on the Mailing List.
Please add my/our name (s) to the Mailing List.

June 4, 1985

Office of Planning and Preliminary
Engineering
State Highway Administration
Maryland Department of Transportation
Box 717
Baltimore, Maryland 21203-0717
re: $\begin{aligned} \text { Project } & \text { No. } \\ & F-866-101-772\end{aligned}$

This letter is submitted for inclusion in the record of SHA's Location/Design Public Hearing concerning Interstate Route I-70 - Mt. Phillip Road to Md. Route 144, in Frederick.

I represent the Frederick King Partnership, owners of 117 acres abutting the south side of $1-70$ between Ballenger Creek Pike and New Design Road, which is under consideration in the City of Frederick's comprehensive rezoning for industrial park type development.

The purpose of this letter is to recommend that additional improvements to the State and Interstate system be considered as part of the current planning project, as shown on the attached sketch. The Frederick King Partnership property is one of numberous properties that have recently been, or are expected to be, developed along Ballenger Creek Pike, contributing to increased traffic demands on the Ballenger Creek Pike - 15/340 interchange. The alternatives under consideration provide no relief to that interchange and, in fact, will increase traffic volumes at that location by requiring that certain movements between the State and Interstate systems (such as northbound $15 / 340$ to westbound I-70) pass through this interchange area instead of providing for direct connections. It would appear that many of the current congestion problems in the "golden mile" on Route 40 will be transfired to the area of the Ballenger Creek Pike-15/340 interchange.

The two additional movements proposed consist of (a) a ramp connection from Ballenger Creek Pike, south of I-70, to eastbound I-70, tieing into the northbound $15 / 340$ to eastbound I-70 ramp, and (b) a ramp from westbound I-70 to Jefferson Pike. The first, (a), will eliminate the need for trips originating along Ballenger Creek Pike, to the south, from having to pass through three other interchanges in the study area simply to gain access to eastbound I-70 or southbound I-270. This appears to be a completely unnecessary addition of trips to the other interchanges, reducing their capacity and increasing distance, delays and confusion for motorists. The merging of traffic on ramps is not foreign to the system, as evidenced by the proposed movements in Alternate 4 in the southwest of $I-70$ and 15/340, and in four locations at the Route 355 and the

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Office of Planning and Preliminary
    Engineering
June 4, 1985
Page 2.
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Reichs Ford Road interchanges with I-70. This addition will also eliminate traffic from the intersection of Ballenger Creek Pike/ south loop to 15-340/ Solarex entrance road. With further development of the Solarex site, this intersection can only become more congested.

The second of the proposed additions, (b), will permit traffic from westbound I-70 to gain access to Ballenger Creek Pike and Jefferson Pike without having to travel through the 40/15/340 interchange. Again, this type of movement is used extensively throughout the study area.

Both of these additions will reduce travel distance, reduce motorist confusion, reduce trips within interchanges, and introduce no new points of entry to or exit from the through travel lanes of the expressways involved.

I respectfully request that consideration be given to these proposals.
attachment


[^1]SHA Response to Robert W. Lanham:
Mr. Lanham has proposed two additional movements at the U.S. Route 15/340 interchange: a loop ramp from Maryland Route 180 (Ballenger Creek Pike) to eastbound $\mathrm{I}-70$ and the return movement in the form of an outer connection from the westbound I-70 to southbound U.S. Route $15 / 340$ direct connection into the Maryland Route 180 interchange. The loop ramp has been incorporated into the selected alternate as a future redundant movement should operational problems occur at the proposed left turn on northbound U.S. Route $15 / 340$ to southbound U.S. Route 40 and I-270 toward Washington, D.C. The return movement proposed by Mr. Lanham is unacceptable in terms of local accessibility. While the proposed ramp split from westbound I-70 to Maryland Route 180 (Jefferson Pike) would provide more direct access from I-70 to Maryland Route 180, it would eliminate the existing ramp from U.S. Route $15 / 340$ southbound to Maryland Route 180 , resulting in significant loss of access to residential and employment areas along Maryland Route 180 from the west and north, including the City of Frederick. This proposal would also increase construction and right-of-way costs.

# MARYLAND SCHOOL FOR THE DEAF 

101 Clarke Place P.O. Box 250
Frederick, Maryland 21701
June 10, 1985

FREDERICK CAMPUS 301-662-4159 (VOICE/TDD)

- Columbia campus 301-465-9611
c- (VOICE/TDD)

Mr. Lewis H. Ege, Jr.
Bureau of Project Planning
State Highway Administration
Box 717
Baltimore, MD 21203-0717

## 0

Dear Mr. Ege:
This is in reference to State Highway Administration Project No. F 866-101772, Interstate Route 70, Mt. Phillip Road to Md. Route 144 (East Patrick Street). The Maryland School for the Deaf (MSD) was unable to have a representative at the May 28,1985 location/design hearing held on this project. However, we understand from someone who was in attendance that a proposal was made by a representative of the Seventh Day Adventist Church that would adversely impact on MSD. The proposal, as we understand it, was that East Street not be extended to connect with Walser Drive but that East Street be extended to connect to a new street which would be constructed along the southern boundary of MSD property to connect to South Market Street and further that this new street would be constructed through the Jeanne Bussard Workshop property and the Loats Recreational Park on the western side of South Market Street and connect to New Design Road.

The administration of MSD wishes to go on record as being strongly opposed to this proposal or any proposal that would include construction of a road through School property. At the present time, much of the School's Loats Farm property is being farmed on a leased basis. However, in the future there is no question that the Loats Farm will be used for some student centered program and the construction of a street through this property in close proximity to impaired children is not acceptable. Furthermore, it appears that the construction of the road through the Jeanne Bussard Workshop property and Loats Recreational Park property would also be ill advised in that these facilities serve impaired individuals and community youth.

At this point our purpose is to make our position on this proposal known to you as you and State Highway Administrators consider testimony and proposals made in regard to this project. We would be pleased to provide further information or to further discuss this matter at any time in the future. Please feel free to contact me should I be able to render assistance.

Sincerely yours,
hrualdecivis
Ronald C. Sisk
Assistant Superintendent for Administration

SHA Response to Maryland School for the Deaf:
Alternate $\mathrm{B}-1$ and 4 are two segments of the selected alternate combination. Neither alternate would require the construction of a new road through the Maryland School for the Deaf property. However, widening of Maryland Route 355 would require the acquisition of minor strip right-of-way (less than $1 / 4$ acre) from the school property immediately adjacent to the existing roadway.

The modifications to these alternates proposed by representatives of the Seventh Day Adventist Church are not supported by this Administration (see Response no. 4 in Section IV, Public Hearing Comments).

## STATE OF MARYLAND

DEPARTMENT OF NATURAL RESOURCES
CAPITAL PROGRALIS ADmINISTRATION
TAWES STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

FRED L. ASKEW ASSISTANT SECRETARY FOR CAPITAL PROGRAMS

June 6, 1985

Mr. Neil J. Pedersen Office of Planning and Preliminary Engineering State Highway Administration 707 North Calvert Street Baltimore, Maryland 21202<br>\section*{Subject: Interstate Route 70 from Mt. Phillip Road to Maryland Route 144}

Dear Mr. Pedersen:

The brochure circulated for the Combined Location/Design Public Hearing for this project notes that some runoff from the existing roadways is discharged directly into adjacent sinkholes. In addition to being unreliable, as suggested in the brochure, this method of handing roadway runoff is also undesirable because of its potential adverse impact on groundwater quality and groundwater inhabiting organisms. If a build alternative is selected in this area, I recommend that methods to eliminate this problem be explored as part of project design. If I can be of any possible assistance to your staff, please do not hesitate to contact me.

Sincerely,


Arnold W. Norden
Maryland Natural Heritage Program
AWN:mle

# Maryland Department of Transportation 

July 2, 1985

## RE: Contract No. F 866-101-772 Interstate Route 70 Mt. Phillip Road to Maryland Route 144 <br> PDMS No 101007

Mr. Arnold W. Norden
Maryland Natural Heritage Program
Capital Programs Administration
Department of Natural Resources
Tames State Office Building
Annapolis, Maryland 21401
Dear Mr. Norden:
Thank you for your letter dated June, 6, 1985 recommending consideration of the elimination of sinkholes as drainage outfalls.

Please be aware that we are studying this issue in some detail and coordinating our study efforts with the Water Resources Administration of the Department of Natural Resources.

Your comments will be considered by the Project Planning Team in their selection of a final combination of alternates.

## Very truly yours, neil of Pedusen

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

## Additional Information:

A discussion of these issues is included in this document in Section III-3c. NJP:mm
cc: Mr. Wayne R. Clingan
Mr. Louis H. Age, Jr.


## TERRANOVA

6600 PLANTATION RD.<br><br>${ }_{301} .50_{8906}$

June 11, 1985

Mr. Dorlald G. Honeywell, Project Manager Eureau of Project Planning State Highway Administration 707 North Calvert Street Baltimore, MD 21202

RE: I-70
Mt. Phillip Rd. to Md. Rt. 144 Reiocation/Design
Dear Mr. Honeywell:
In the interest of better traffic movement for the public benefit I offer the following recommendations:

1. $1-270$ TO I-70 AT NEW DESIGN ROAD

Alternates 2 and 4 both show a new ramp from $1-270$ northbound to $I-70$ eastbound. As shown, this accomplishes only one of two highly desirable objectives. With an easy and relatively inexpensive modification, the second objective could te accomplished.

Both Frederick City and Frederick County are officially on record as favoring the changes described below, so that both objectives can be accomplished.

Relocate the proposed ramp to a position east of the present New Design Road, still allowing traffic to move from northbound i-270 to $I-70$ eastbound. In addition, provide a split in the ramp allowing northbound traffic from $1-270$ headed for downtown Frederick City to cross the New Design, bridge over I-70 and, following either a modified New Design Road or modified Adventist Road, to enter the City via South Market Street, possibly Entering South Market Street at the four-way intersection at Waler: Drive.

Advantages:
A. Allows all traffic from Washington-Frederick corridor on I-270 with a Frederick City destination to:
(1) Avoid the congested Md. 85
(2) Avoid the Md. 85-5j5 intersection
(3) Avoid the 76 Truck Stop traffic conflicts
(4) Avoid negotiating the interchange at $\mathrm{I}-270$ \& Md. 85
B. Reduces congestion in the Md. 85 commercial area
C. Increases safety for travelers
D. Reduces travel time and frustrations for travelers by avoiding at least five traffic signals on Md. $85 \&$ Md. 355
E. Uses existing roads between the New Design bridge over I-70 and South Market Street
F. Uses existing (or proposed rebuilt) bridge over i-78 at New Design
G. Requires minimum new right of way acquisition
H. The curve radius on the ramp is longer than that proposed in Alternates 2 and 4.

Disadvantages:
1
A. Requires minor additional right-of-way acquisition (out no buildings need be purchased and no business is disturbed)
B. Requires improvement of the route chosen between the New Design/I-78 bridge and South Market Street

Adventist Road could be restricted to one-way traffic eastbound to Md. 355, and New Design Road could be one-way southwestbound between 355 and the I-70 overpass, or both could be two-way.

The advantages obviously outweigh the disadvantages. At the hearing on May 28 in Frederick, it was pointed out by the SHA staff that traffic will double within two decades. At the present rate of growth, traffic on Md. 85 between I-270 and Md. 355 will double in a much shorter time than that, especially with the real estate activity along this route. You may not be aware of the fact that the 230 acres in the southwest quadrant of $1-270 / 85$ is being sold and will soon be under intensive development. This property will have more than 1,000 dwelling units and over 100 acres of commercial, light industrial and office buildings. This project alone will add significantly to the traffic on Md. 85.

It would be extremely short-sighted to miss this opportunity to relieve the Md. 85 commercial corridor of much of its future traffic.

In your letter to me, dated 8/8/84, you stated that there was a problem with creating additional access points on an interstate. This objection does not stand up under examination since an access point to both I-270 and I-70 has already been shown in both alternates ( 2 \& 4) . Ti his proposal is simply to slightly move the I-270 aches and to split the ramp. It does not significantly reduce the weaving length on I-270. (Actually, this 15 not an access point, but an exit point from I-270.)

You also stated that other routes are better able to accommodate this movement into the City of Frederick. The only other route suggested by SHA thus far is Md. $85 \& 355$, already congested. It will be further congested as development progresses. None of the SHA proposals would relieve the Md. 85-355 congestion and attendant traffic hazards.
2. MD. 355/I-70 INTERCHANGE

Alternates $\mathrm{B}-1$ and $\mathrm{B}-2$ are preferred over Alternate A .
Both P-1 and P-2 are deficient, however, in that the intersection at I-70 and Md. 355/85 is congested, with a number of left turn movements.

Trucks on eastbound $I-70$ will still be required to negotiate this interchange, through traffic signals, in conflict with automobiles.

With two loops added opposite East Street on the south side of I-70, traffic entering or leaving the eastbound I-70 lanes for the 76 Truck Stop, East Street and Falser Drive will be able to do so without left turns. Further, all the traffic using these loops would be removed from the congestion around the 355/85/I-70 interchange.

The left-turn movement from Md. 85 into the loop to $1-70$ eastbound could be eliminated. Traffic desiring entry into eastbound $\mathrm{I}-70$ from Md. 85 \& 355 could turn right on Waler Drive and proceed to eastbound I-70 with all right turns. Trucks to and from the 76 Truck Stop would all use the new East Street-Walser Drive interchange for both the east and westbound lanes for entry and exit.

The interchange at Md. 355/85/I-70 would remain as shown on Alternate B-1 except for elimination of access into the $\mathrm{I}-70$ eastbound loop from northbound Md. $85 \& 355$, and the left turn from northbound Md. 355 into the westbound $\mathrm{I}-70$ would be eliminated. This traffic would turn right on Waler and use the new loop into $\mathrm{I}-70$. Thus, all left turns from $355 \& 85$ would be eliminated, and traffic here would be reduced to the extent that almost all trucks to and from the 76 Truck Stop and East Street would be removed from 355, and these trucks would also avoid the 355-Walser Drive intersections.

Most of the right-af-way required would be from the space between the Genstar berm and I-70, and some of the bermitself. While the SHA may prefer the confinement of the interchange to the land it presently owns at the 355/I-70 interchange, such a consideration should not be allowed to influence the safety and traffic handling considerations. The amount of money involved for additional right-of-way will be small in comparison to total project cost.

Your objection to the cloverleaf loop configuration can be overcome by a reconfiguration to an alternative double-bridge construction with higher speed blending lanes using 90 degree instead of 270 degree turns.

With this interchange completed, the 270 degree loop for $1-70$ eastbound to South Street northbound could be eliminated. Traffic requiring access would use the East Street interchange, with all right turns as far as South Street, turning either right or left at the Waller and South Street intersection.

Something must be done to relieve the congestion, the left-turn conflicts, and the heavy truck traffic at the $355 / 85 / I-70$ interchange. These suggestions would do just that. If this opportunity is lost, we will all be regretting it for decades to come as we live with the problem.

Copies of letters from the $C i t y$ and the County are enclosed, which express their request for the New Design Road access to Frederick as I have explained it above.

Please reconsider your plans to include the improvements in this letter.

rah

Enc: Letter, Mayor of Frederick:
Letter, President, Frederick County Commissioners
Plan, Alternate 2 showing suggested Changes
Plan, Alternate B-1 showing suggested changes
Ec: Mayor Young, with attachments Commissioner Claggett, with attachments
SHA District Highway Engineer Clingan, with attachments

SHA Response to J.W. Brosius:
This Administration has reviewed both of Mr. Brosius' proposals for further improvements to the subject I-70 interchanges. Both of these proposals were found to have deficiencies that precluded further consideration. Moving the proposed I-270 northbound to I-70 eastbound ramp to the east of New Design Road poses several problems. First, the weave lengths for this movement and the I-70/Maryland Route 85/355 interchange would violate current Federal and State design standards and create safety and operational problems on I-70. Second, the right-of-way 1 ine of through highway associated with Mr. Brosius' proposed ramp would require denial of access on New Design Road from I-270 to I-70, including alternative access to an industrial park and a National Register Historic Site. Third, purchasing additional right-of-way for a problematic design which violates current design criteria cannot be supported by this Administration.

This Administration also cannot concur with Mr. Brosius' proposal for additional interchange ramps at the proposed East Street/Walser Drive interchange at I-70. The proposed ramps, in relation to Maryland Route 85/355 and I-70, violate AASHTO interchange spacing criteria. Second, the additional ramps would require the construction of an additional bridge in an area of extensive sinkhole activity. The bridge over I-70 would require either an extreme grade to tie into Walser Drive near proposed East Street or significant right-of-way acquisition to raise the grade of proposed East Street/Walser Drive.

Finally, additional right-of-way would be required for the construction of these ramps. Right-of-way requirements would be extensive to support the grade of the bridge and radii of the ramps.

The Project Planning Team has chosen Alternates B-1 and 4 as two elements of the selected alternate combination.

Mr. Neil J. Pedersen, Director
Office of Planning and Preliminary Engineering
State Highway Administration
Baltimore, Maryland
Dear Mr. Pedersen:
With reference to the State Highway Administration proposals to upgrade the Interstate 70 intersections at Frederick:

I believe that either alternates 2 or 4 , or a combination of them, would be desirable to provide additional possible movements between the highways.

However, alternates $A, B-1$, and $B-2$ are extremely undesirable as they apply to the Maryland 355/85 intersection with Interstate 70. Any of them would work a particular hardship on residents of Crestwood Village, Mountain Village, and Foxcroft, and others along New Design Road, since they would require driving another mile or more to get onto I-70 westbound, and thus to U. S. 15 north and the U. S. 40 west shopping area.

I feel that none of the proposals would improve the present congestion at that intersection and would only, at terrible expense to the taxpayers, permit trucks to negotiate the ramps at higher speeds than at present. This would probably also have the effect of increasing truck usage, which would only increase the present extremely severe noise pollution.

I would strongly recommend that alternates $\mathrm{A}, \mathrm{B}-1$, and $\mathrm{B}-2$ be rejected, and that the entire area be made the subject of a more comprehensive study that would include consultation with both county and city planning agencies and give consideration to potential development in the area including other projected roads.


Copies to: Wayne R. Clingan, District Engineer, SHA
$\begin{aligned} & \text { Senator John Derr } \\ & \text { Delegate James McClellan }\end{aligned}$



# Maryland Department of Transportation 

State Highway Administration
WIlliam K. Hellman Secretly
Hal Kissoff
Adminitratator
July 22, 1985

RE: Contract No. F 866-101-772<br>Intestate Route 70<br>Mt. Phillip Road to Maryland Route 144 PDMS No. 101007

Mr. Lester F. Dingman, P.E.
Post Office Box 1133
Frederick, Maryland 21701
Dear Mr. Dingman:
Thank you for your letter dated June 27, 1985 supporting the proposed improvement of Interstate Route 70 at Frederick.

Our Project Planning study process is an outgrowth of Federal and State legislation and regulation which requires continuing agency coordination. The Project Planning Team for this and other projects includes representatives from City; County, State, and Federal agencies. Several meetings, briefings and exchanges of correspondence between Team members, agencies and elected officials have taken place during this study since its beginning in 1977. Additionally, three public meetings and a public hearing have been conducted by the Project Planning Team.

The Project Planning Team concurs with your position that it is desirable to provide the missing turning movements at the Interstate Route 70 interchanges with U.S. Route $15 / 340$ and Interstate Route 270. Alternate 4 has been designated as the "preferred" solution for providing these movements.

Alternates $A, B-1$ and $B-2$ are alternative methods of reconstructing the Maryland Route 85/355 interchange and the South Street/Reich's Ford Road interchange to current design standards. The issues considered in developing these alternates included: compatibility with local master plans, environmental and community impacts, geophysical conditions, safety and cost effectiveness. Other alternates were considered during the study but were discontinued for various reasons. As noted on page 9 of the enclosed public hearing brochure, the Project Planning Team has previously indicated a preference for Alternate B-1. However, we would be pleased to consider any specific suggestions you may wish to offer.

Mr. Lester F. Dingman, P.E.
July 22, 1985
Page Two

We expect to conclude this study during the fall of 1985.
Your name has been enrolled on the project mailing list as you requested.

Very truly yours, Neil of Pedesen
Neil J. Pedersen, Director Office of Planning and Preliminary Engineering
NJP: ds
Attachment
cc: Mr. Wayne R. Clingan
Mr. Louis H. Ege, Jr.

## Additional Information:

Alternates 4 and B-1 are two segments of the selected alternate combination.


The Board of Directors of the Chamber of Commerce of Frederick County, Inc., at the June 26, 1985 Board Meeting, voted in favor and support of the Business Development Committee's resolution as follows:

The Chamber of Commerce of Frederick County, Inc. encourages the funding to expedite the engineering study and construction of the project that will create new interchanges from Route $I-70$ and $I-270$, USS. 15 and U.S. 340 among others.
cc: County Commissioners
vt $\operatorname{mp}$ es

SHA Response to the Chamber of Commerce:
The project includes the reconstruction of the I-270/U.S. Route 40 and U.S. Route 15/340 interchanges at I-70. These improvements would contribute to improved traffic safety and service, provide missing travel movements, and better accommodate truck traffic and projected increased traffic volumes along this segment of I-70.

## B. Elected Officials

GLENN L. NIKIRK Administrative Assistant

CAROLYN R. GREINER
Exccutive Assistant


Aldermen
JAMLS M. MURPHY President Pro Tem CALVIN S. BARTGIS ALLEN G. MERCIIANT
C. ARLENE PHILLIPS
II. THOMAS SUMALERS

July 31, 1984

Mr. Donald G. Honeywe 11, Project Manager
Bureau of Project Planning
State Highway Administration
707 North Calvert Street Baltimore, MD 21202

RE: I-70 Improvements E. Patrick
Street to Mt. Phillip Road

Dear Mr. Honeywel1:
The Mayor and Board of Aldermen have reviewed the proposals for I-70 improvements and wish to go on record as supporting the following alternatives as outlined in the booklet prepared by SHA for the public informational meeting of June 14, 1984:

1. Inside widening west of I-270 and outside widening east of that point is preferred. In the City's opinion this will provide the needed additional roadway capacity for the future while maintaining a desired rural type facility with grass median throughout.
2. At MD 355, Alternative B-1 is preferred because it relocates the interchange so as to align with East St. Extended to the north and with proposed Monocacy Blvd. to the east.
3. At US $340 / 15$, Alternative 4 is preferred as the less costly and less confusing option to provide missing movements and thus provide some relief from the through traffic on US 40 West.

Improvements to I-70 as proposed are supported by the City and are consistent with the Frederick City Comprehensive Plan. The increased capacity and additional interchange movements will benefit through traffic on the Interstate and also will facilitate planned growth and traffic circulation patterns of the City.

Subsequent to the June 14th public meeting, a modification to alternative B-1 was prepared by SHA and discussed wi th the City Engineer, Superintendent of Public Works and Planning Director at a meeting at the District 7 office on July 18, 1984. This modification relocates the connection between New Design Road and Md 355 at Walser Drive behind the Seventh Day Adventist Church \& School and bisects the proposed Loats Park to be developed this year by the City. The Mayor and Board wish to

City Hall, 124 North Market Street, Frederick, Maryland 21701
go on record as supporting Alternative B-1 as originally presented. A modification which bisects the park would not be acceptable to the city.

We appreciate this opportunity to comment and look forward to continued cooperation with the State Highway Administration as this project progresses.

cc: Mr. Wayne Clingan: SHA District 7
Mr. James A. Schmersahl, City Planning Director

RNY/smr

SHA Response to Mayor Young:
Alternates $\mathrm{B}-1$ and 4 , Inside Widening from Mt. Phillip Road to I-270, Outside Widening from I-270 east to Maryland Route 144, and a drainage outfall, are the selected alternates. Alternate B-l skirts the southern boundary of Loats Park and will not require the acquisition of property from this park.


Aldermen
JAMES M. MURPHY President Pro Tem CALVIN S. BARTGIS ALLEN G. MERCIIANT
C. ARLENE PHILLIPS
H. THOMAS SUMMERS

September 10, 1984

Mr. Donald G. Honeywell
Project Manager
Bureau of Project Planning
State Highway Administration
707 North Calvert Street
Baltimore, MD 21202
Dear Mr. Honeywell:
After further review of the I-70 reconstruction around Frederick, the Mayor and Board of Aldermen would like to further comment on the entrance way into Frederick from I-270. We feel that neither Alternate 2 nor 4 are satisfactory respecting the connection between I-270 northbound and 1-70 eastbound in the vicinity of New Design Road. Both of the proposed alternates require the heavy traffic from I-270 bound for downtown Frederick to use MD 85 from the Francis Scott Key Mall, along the commercial strip, through the congested intersection at $355 / 85 / \mathrm{I}-70$ and past the left turn movements of the 76 Truck Stop. This commercial strip is under intensive development. It will soon equal US-40 west of Frederick in its commercial activity. We can expect that MD 85 will, as a consequence, have many traffic lights, left turn movements, and vehicle exits/ entrances serving commercial properties; all adding up to congested, hazardous, and time-consuming travel.

The problems described above can be avoided, as to I-270 traffic bound for downtown Frederick via South Market Street. The Board of Aldermen and I much prefer that the I-270 North to I-70 East ramp be relocated so as to be east of New Design Road. This ramp would split, so as to permit traffic to either enter Frederick via Adventist Road to South Market Street, or to keep right onto I-70 eastbound.

Your Alternate 4 shows a modification to Adventist Road at New Design Road, and B-1 shows a modification to Adventist Road at MD 355. By combining these two alternates, Adventist Road would become the route for traffic inbound to Frederick City. Vehicles would leave the I-270 to I-70 West ramp in a high-speed right turn, cross I-70 at or near the present New Design Road bridge over I-70, and bear right into Adventist Road with a ramp similar to that shown on Alternate 4 ; then they would continue on an upgraded one-way Adventist Road to 355 at Walser Drive, where they would make a left turn into 355, South Market Street.

The exact configuration would be determined by your engineers. Drawings enclosed show some possibilities.

The City feels strongly that the changes described above and shown on the attached drawings should be incorporated in your final design and built.

Thank you.
Sincerely,
$\left.\begin{array}{c}\text { RONALD N. Young } \\ \text { Mayor } \\ \text { City of Frederjick }\end{array}\right\}$
cc: Mr. Wayne Clingan
Enclosures: 2 plans, Alternates $4 \& B-1$, with modifications

## SHA Response to Mayor Young:

Alternates 4 and $B-1$ are two segments of the selected alternate combination which best deal with the operational difficulties experienced along this segment of I-70.

This Administration has reviewed the proposal for creating an additional entrance into Frederick directly from I-270.

Moving the proposed I-270 northbound to I-70 eastbound ramp to the east of New Design Road poses several problems. First, the weave lengths for this movement and the I-70/Maryland Route 85/355 interchange would violate current Federal and State design standards and create safety and operational problems on I-70. Second, the right-of-way line of the through highway associated with the proposed ramp would require denial of access on New Design Road from I-270 to I-70. Third, the purchase of additional right-of-way for a problematic design that violates current design criteria is not supported by this Administration.

Winchester Hall
12 E. Church Street
Frederick, Maryland 21701
Telephone (301) 694-1100


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County Crmmiasianta 37 rederick Countu

September 26, 1984

Mr'. Louis H. Ege, Jr., Acting Chief
Bureau of Project Planning State Highway Administration
P.O. Box 717

Baltimore, Maryland 21203-0717

Re: I-70 Project<br>Entrance Way to Frederick

Dear Mr. Ege:
The Frederick County Commissioners met on September 18, 1984, and reviewed the recommendations by Frederick City for improvements to $1-70$ in the New Design Road vicinity.

As proposed by Mayor Young and the Board of Aldermen, the connection from northbound $1-270$ to eastbound $1-70$ would be relocated from where it is presently proposed to be located to the east side of New Design Road. Such a relocation would allow for a new off-ramp from 1-270 onto New Design Road. Adventist Drive from New Design Road would then be ungraded. to Route 355 and Walser Drive.

Atter consideration of the recommendation in the light of former alternatives, the Commissioners voted to support the City's proposal save for one point. 'In the opinion of the Comissioners, there can be no benefit gained from making Adventist Drive one-way between New Design Road and Route 355. The effect of such a change is to force traffic wishing to head south on New Design Road to the existing intersection of that road and Route 355. This intersection, as we have noted in previous letters to your office, is sub-standard and hopefully in the future can be either relocated or closed. An upgraded, two-way Adventist Drive could accomplish the same purposes as the City's recommendation without adding to the existing problems at this intersection.

Mr. Louis H. Ege, Jr.<br>State Highway Administration<br>Baltimore, Maryland<br>September 26, 1984<br>Page two

Please feel free to contact myself or our staff should you have any further questions on this matter.

## The Board of County Commissioners of Frederick County, Maryland

GRC/RB/dr

## cc: Mayor Ronald Young Jim Schmersahl <br> Neil J. Pedersen Wayne Clinghan

SHA Response to the Board of Commissioners:
See the response to Mayor Ronald N. Young's letter of September 10, 1984.

GLENN L. NIKIRK
Administrative Assistant
CAROLYN R. GREINER
Executive Assistant


October 22, 1984

Alik:me:n
JAMIS N. NURPIY President Poo fem C AIVINS. BARTC:IS AI.II:N (i. AIIRCIIANJ
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II. TIIOMAS SUMMERS

Secretary William K. Hellman
Maryland Department of Transportation
P. O. Box 8755

Baltimore-Washington Int'l Airport, MD 21240
Mr. Hal Kassoff, Administrator
State Highway Administration
707 North Calvert Street - Room 400
Baltimore, MD 21202
Attention: Mr. Neil Pedersen, Director
Office of Planning and Preliminary Engineering
Reference: Contract No. F866-101-772
Interstate Route 70
Mt. Phillip Road to Maryland Rt. 144
PDMS No. 101007

OCT $2 \cdot 1984$



Gentlemen:
The City was pleased to have been included in your Inter-Agency Hydraulic Conference of September 28, 1984, in which your concerns regarding drainage of the improvements to $\mathrm{I}-70$, as affected by sinkholes in the project area between Urbana Pike and Reich's Ford Road, were discussed.

It is the City's understanding that you have instigated geologic and related studies to better assess the dependability of the existing system of natural sinkholes as outlets for surface drainage from the highway rights-of-way rather than developing expensive alternative surface drainage discharges. If your studies indicate that surface drainage outlets must be provided, the city is, for the following reasons, vitally concerned that you give due consideration to the possibility of discharging this water to Carroll Creek rather than diverting it via Reich's Ford Road.

The City of Frederick is now planning the Carroll Creek Flood Control and Linear Urban Park Project, which will convey Carroll Creek flood flows in a closed conduit system from Baker Park at Bentz Street to a discharge to the floodplain downstream of Highland Street. As required by the Maryland Department of Natural Resources, Water Resources Administration, the flood control conduits are designed to accomodate the projected storm water discharge from this (I-70 Project) area. As indicated on the attached map, this storm flow is expected to discharge

Department of Transportation
October 22, 1984
Page 2
to the conduit system just upstream of East Patrick Street, at or near the location of the existing 72-inch diameter pipe which now discharges to the stream. This drain is now part of the City's storm sewer systen which, generally following the course of an earlier stream, is piped in city owned R/W or easements from the junction of Hamilton Avenue and South Street, across Pennsylvania Avenue, then along Sagner Court and across Sagner Avenue to the present discharge to the creek. It seems apparent that, in conjunction with an open channel from your project area discharging to an improved storm sewer in or adjacent to the location of the existing system, your I-70 project storm flows could, as planned,
be discharged to Carroll Creek.

In view of your preliminary study which proposed, at a cost of $\$ 6$ million, to divert this storm flow via a large new storm drain along Reich's ford Road, the City is concerned that this money might better serve the dual purpose of assuring the interstate project drainage while also improving the existing storm sewer system in an important area of the city and aiding in funding the discharge portion of the Carroll Creek conduits from East Patrick Street to Highland Street. It is apparent that scheduling of construction of this portion of the Carroll Creek Project, and other as yet undiscovered problems concerning these projects must be coordinated and assessed.

Should this alternative be chosen the savings in city and state funds would be considerable. Not only would the water be kept in the proper basins, but a good portion of the Carroll Creek Project would be constructed at no additional cost to the state.

The state is presently involved in the funding for the Highland Street bridge, has made a commitment to the Patrick Street bridge, and has made one $\$ 2$ million allocation from capital funds and another $\$ 3 \mathrm{million}$ request has been submitted. If the state moves forward by addressing the problem via Carroll Creek it could combine the monles for Highland Street and Patrick Street and that which would have been used on Reich's Ford Road and construct the leg of the project between those two bridges. It would give great impetus to the Carroll Creek project, not cost the state any more money for I-270 and save the city from requesting funds from the state in the future. It seems to me everyone would be a winner in this situation.

It is requested, therefore, in order to assure the most beneficial use of public funds, that you include an alternative similar to that suggested above as you compare al ternative solutions to your goal of providing a suitable drainage system for the I-70 Project.

Please call on the City's Engineering and Public Works staffs for any information or assistance which may be helpful.
Very, truly yours,
RONALD N. YOUNG
Mayor
City of Frederick

# Department of Transportation October 22, 1984 <br> Page 3 

cc: Delegate McClellan Delegate Morningstar Delegate Littrell Delegate Hattery
Senator Derr
Senator Smelser
Mr. John C. Warfield
Mr. John L. Bell

Manyland Department of Transportation
State HIghway Administration

WIIllam K. Hellmam Sacratary

Hal Kassoff
Administrator

DEC 051984
RE: Contract No. F 866-101-772.
Interstate Route 70
Mt. Phillip Road to
Maryland Route 144
PDMS No. 101007
The Honorable Ronald N. Young Mayor
City of Frederick
City Hall
124 North Market Street
Frederick, Maryland 21701
Dear Mayor Young:
Thank you for your letter requesting our consideration of utilizing Carroll Creek as the stormwater outfall from the sinkhole area along the north side of Interstate Route 70.

At the interagency hydraulic meeting of September 28, 1984, our respective staffs discussed alternative stormwater outfalls to both Carroll Creek and the Monocacy River at Reichs Ford Road. Among the significant factors that surfaced during the hydrologic/ hydraulic study and seemed to indicate the outfall to the Monocacy River as the most feasible alternative solution to the use of sinkholes as drainage outfalls were the following: 1) there is no positive hydraulic connection between the sinkhole area and Carroll Creek; 2) routing a drainage outfall into the City may require tunneling under and/or underpinning buildings; 3) Carroll Creek is a designated flood hazard area; and 4) the recently activated Water Resources Administration's Stormwater Management Regulations COMAR 08:05.05.06 and .07 dated July, 1984 specifies Carroll Creek as one of only three interjurisdictional flood hazard waterways in the State wherein increased peak discharges for the 100 year frequency storm event are prohibited.

It is our present intention to complete the Project Planning study on the basis of continued use of the sinkholes as drainage outfalls as long as possible. Construction of an alternative drainage outfall will be considered only in the event of failure of the sinkhole system. Thus, the State Highway Administration's funding for implementation of an alternative outfall may never materialize, regardless of the option selected.

My telephone number is

Page Two

We would have no objection to further investigation by the City of Frederick of Carroll Creek as an alternative outfall from the sinkhole area and we would be pleased to consider any information: forthcoming from your study.

Sincerely,
Original Signed By:
HAL KISSOFF.
Hal Kissoff
Administrator
HK: ems

cc: The Hon. Wm. K. Hellman<br>Mr. G. E. Daily<br>Mr. N. J. Pedersen<br>Mr. W. R. Clingan<br>Mr. L. H. Age, Jr.<br>Mr. A. M. Capizzi<br>Mr. S. R. Miller, Jr.<br>Mr. J. K. Gatley<br>Mr. C. L. Kolsky

## Additional Information:

A drainage outfall to the Monocacy River via Reich Ford Road has been designated to transport stormwater runoff from the sinkhole area in the event these sinkholes cease to effectively function. The design and protection of right-of-way for the outfall is one element of the selected alternate combination.

A review of the alternates during January 1987 again concludes that there is little possibility that the Carroll Creek outfall can be more economical than the proposed outfall to the Monocacy River.

# House of Delegates 

Thomas H. Battery PRepericx county 300 LOWE EULDNG TOW TREE PHONE : $8000-492.7122$

DISTRICT OFFICE: po. cox es MT. ANY, MARYLAND 21771 MONE 694-0123

July 11, 1985

William Helmand
Secretary of Transportation
P.O. Box 8755

Baltimore-Washington International Airport
Baltimore, Maryland 21240
Dear Bill:
Enclosed is a copy of a memo regarding construction of new interchanges in the Frederick vicinity.

As you can see the enclosed memo is supported by both the Business Development Committee and the Board of Directors of the Chamber of Commerce of Frederick County.

Our highway system is one of the most important assets Frederick County and Frederick City has. It is critical for our community's future to follow up on the Chamber's action of planning for growth and future needs rather than reacting to problems created by future developments.

I would appreciate it if you or someone from your office would contact the Frederick County Chamber for more details. I would further appreciate a contact from your office regarding the feasibility of implementing the Chamber's recommendation and the timetable for doing so.

Thanks for your attention to this matter, I certainly appreciate your continued helpfulness.

## Enclosure

THH/nd

Mardand Department of Transportation
The Secretary's Office

Harry Hughos
Governor
William K. Hellmann
Secrelary

The Honorable Thomas H. Hattery Member-Maryland House of Delegates 14209 Harrisville Road
Mt. Airy, Maryland 21771
Dear Delegate Hattery:
Thank you for your letter of July ll, 1985 supporting the reconstruction of the interchanges on Interstate 70 south of Frederick City.

The project is currently in the Development and Evaluation portion of the 1985-1990 Consolidated Transportation Program for both Project Planning and Final Engineering. Although right-of-way and construction activities are not funded in the Program, the Department recognizes the importance of Interstate 70 and will continue project development activities anticipating that the project will be moved into the Construction Program upon the availability of funding.

Mr. Wayne R. Clingan, District Engineer for Frederick County, has been asked to contact the Chamber of Commerce for Frederick County regarding the schedule for the project.

If you have any questions or comments, please do not hesitate to contact me.

Sincerely,

/S/ WILLIAM K. HELLMANN
William K. Hellmann Secretary

WKH: tn
Cc: Mr. Hal Kassoff
Mr. Neil J. Pedersen
Mr. Wayne R. Clingan
$\subseteq$
Tha ges:

## The Honorable Thomas H. Hattery

## Page Two

bcc: Mr. Jack F. Ross
Mr. J. L. White
Mr. Louis H. Ege, Jr.
Mr. John D. Bruck
Mr. Donald Honeywell

Prepared by Charles McCormick, xll27
Bureau of Highway Planning and
Program Development, 7/23/85

Winchester Hall
12 E．Church Street
Frederick，Maryland 21701
Telephone（301）694－1100

## 唃nard（bFf

County Commitsimets F frederick ©

## Commissioners

Galen R．Clagett，President Charles C．Smith，V．President Sterling E．Bollinger，Sr． Richard L．Grossnickle J．Anita Sup
Administrative Assistant Peter Eckel

November 5， 1986

Mr．Neil Pederson，Director
Planning \＆Preliminary Engineering
State Highway Administration
707 North Calvert Street
Baltimore，Maryland 21203
Dear Mr．Pederson：
The Board of County Commissioners held a workshop on November 3， 1986 to discuss the following modifications to the $\mathrm{I}-70$ improvements between Mt． Phillip Road and Rt． 144.
－The ramp from southbound US 40 to westbound I－70 will be carried on a separate roadway to cross over Rt． 180 and tie into $I-70$ further west to eliminate weaving movements．
－Addition of a left turn movement from northbound US 15／340 into the westbound to southbound ramp to I－270．
－Addition of a ramp from Rt． 180 to the northbound US 340／15 to eastbound I－70 ramp．

The Commissioners voted unanimously to support the changes as proposed by the State Highway Administration．

Feel free to contact me if you have any questions．
Very truly yours，
BOARD OF COUNTY COMMISSIONERS
OF FREDERICK COUNTY，MARYLAND

By：

cc：County Commissioners
Jim Shaw，Larry Johnson，
Don Date，Wayne Clingan， Gene Straub，Evan Smith

Maryland Department of Transportation

State Highway Administration

William K. Heilmann Secretary

Hal Kassoff Administrator

JAN 131987

The Honorable Ronald N. Young
Mayor, City of Frederick
City Hall
124 North Market Street
Frederick, Maryland 21701
Re: Contract No. F-866-101-772
Interstate Route 70 - Mount Phillip Road to Maryland Route 144
P.D.M.S. No. 101007

Dear Mayor Young:
This is a follow-up to your recent discussion with Wayne R. Clingan about a number of important issues.

We are supporting the City's efforts regarding the Bowman Farm Property, which you wish to acquire for expansion of the airport and City facilities. Ms. Adele Bertak, with the Motor Vehicle Administration, is now planning to schedule a meeting for January to coordinate both their interests and yours, and we anticipate conclusion of the disposal of this property by mid-year.

The Patrick Street project (Maryland Route 144), as you know, is in the process of having an agreement executed for the design phase. The remainder of the phases is contingent on a funding increase for the Maryland Department of Transportation.

I am pleased to advise you that the State Highway Administration is agreeable to accepting responsibility for the East Street Extension project as a logical secondary highway. The Extension from Patrick Street to Walser Boulevard can be considered as a Secondary System project subject to a consensus among State and County elected officials that this is the highest priority for Frederick County and subject to available future funding. It was also agreed that appropriace roadways (local) would be accepted into the City's system.

The Hayward Road Interchange at U.S. Route 15 will be considered for the development and evaluation portions of the Consolidated Transportation Program in the next few years. While it must compete with other primary projects in the State, we feel that this is a good project and deserves consideration.

## $\operatorname{con}^{-t}$

Concerning the possibility of diverting water from the I-70 sinkholes to Carroll Creek rather than to the Monocacy River, as originally contemplated, a review of the alternatives shows that there is little possibility that the Carroll Creek outfall can be more economical than the Monocacy River. This is based on the following reasons:

1. The pipe in either alternative is approximately the same length; even though the total length of outfall to the Monocacy River is greater, much of it is an open channel. However, since the drop from the inlet point to the outlet point is very great with the Monocacy River alternative and very slight with the Carroll Creek alternative, a larger structure would be required to carry the water to Carroll Creek and thus a greater construction cost would be involved.
2. The State Highway Administration does not intend to actually construct the outfall. Our geologists have indicated that it is doubtful that the sinkholes will fail. However, in order to not have a very expensive alternative occur in the future, when development has totally taken place in the corridor, we feel that it is more prudent to buy the rights-of-way at this time on a contingency basis.
3. We are greatly concerned that, with the small amount of differential between the inlet and outlet elevations of the pipe going to Carroll Creek, the City's system would sharply reduce the discharge capacity of our system and could possibly result in podding at the sinkholes from drainage occurrences on the Carroll Creek floodplain.

If, however, the City of Frederick receives the support of local County and State elected officials for the East Street project as the highest priority for Frederick County, we will do detailed studies as part of the I-70 project to ascertain if there would be a cost savings and benefit to the public and the City by routing the water to Carroll Creek. If right-of-way, utility, and construction cost savings from the East Street project offset the costs of only buying the right-of-way for the Monocacy River outfall, this option could be a possibility.

Thank you.
Sincerely,
ORIGINAL SIGNED BY:
HAL KABSAFF
Hal Kassoff
Administrator
HK:mfe
bee: Mess rs. Marshall Rickert, MVA; Richard Mene, RRA; Neil Pedersen, Wayne Clingan, \& Gene Straub, SHA; and Ms. Adele Bertak

## C. Agency Coordination

# United States Department of the Interior 

OFFICE OF THE SECRETARY WASHINGTON, DC. 20240

Mr. Emil Elinsky
Division Administrator
Federal Highway Administration
${ }^{2} 711$ West 40 th Street
Baltimore, Maryland 21211
Dear Mr. Elinsky:
This is in response to the request for the Department of the Interior's comments on the environmental assessment/Section 4(f) evaluation for I-70 (Mount Phillip Road to SR-144), Frederick County, MD.

SECTION 4(F) STATEMENT COMETS

Lots Park:
It appears that alternatives $\mathrm{B}-1$ and $\mathrm{B}-2$ are feasible and prudent alternatives which would avoid the taking of parkland from Loats Park, therefore the Department would object to Section 4(f) approval of Alternative $A$ in the area of the park.

East Frederick Elementary School:
The Section $4(f)$ statement should also discuss the project's impacts on the East Frederick Elementary School's recreational land, including measures to minimize harm. This school recreation land falls under the protection of Section 4(f) as it is being used by the general public after school hours and on weekends (See letter on page v-9).

## END LRONMENTAL ASSESSMENT COMMENTS

We have reviewed the subject document with respect to project impacts upon fish and wildlife resources and their habitats and find it to be adequate. However, there are several areas of concern to the U.S. Fish and Wildlife Service where further clarification is necessary, as follows :

Section E.3., page IV -7, paragraph 4: The revised assessment should include a figure depicting Ballenger Creek and its tributaries and the alignments of alternatives that will impact them. A brief narrative should also be included stating what the existing structures are, what types of structures are proposed, and whether the streams are intermittent or perennial.

Mr. Emil Elinsky, Baltimore, Maryland
Section E.3., pages IN-8, paragraph 2: A brief discussion of the filtration devices under consideration and their relative (percent) efficiency should be included in the final assessment.

Section E.4., page IV-8, paragraph 3: It is stated that the project will not impact any "designated" wetlands. This terminology should be clarified in the final assessment. The Department is concerned that the discussion in Section E.5.a., pages IV $-8 \& 9$, paragraph 5 concerning the vegetation in the 'headwaters of Ballenger Creek may be some type of palustrine wetland. The final assessment should include a list of dominant canopy and understory vegetation in the Ballenger Creek headwater areas. Furthermore, it should be clarified what alternative(s) would potentially impact the Ballenger Creek headwaters area and how much acreage would be impacted.

## FISH AND WILDLIFE COORDINATION ACT COMMENTS

Based on the information contained within the subject assessment, the Fish and Wildlife Service advises that its position on any Department of the Army permit application would likely be to recommend: 1) avoidance of any wetland encroachments; 2) selection of an alternative that would involve the least amount of instrean construction; 3) countersinking, if feasible, the pipe or box culverts to be extended to provide for unimpeded aquatic organism passage and development of a natural stream substrate within the culverts; 4) incorporation of effective stormwater management measures; and5) strict implementation and adherence, to an approved sediment änd erosion control plan.

## SUMMARY COMMENTS

The Department of the Interior has no objection to Section 4(f) approval of Alternatives B-1 and B-2 with respect to Loats Park. However, these alternatives appear-to impact the East Frederick Elementary School. We, therefore, recomend redesign of these alternatives to avoid the school play ground.

We appreciate the opportunity to provide these comments.

Sincerely,

cc:
Louis H. Ege, Jr. Edward Terry

SHA Response to the Department of the Interior:

1. Alternate $\mathrm{B}-1$ is one segment of the selected alternate combination. This alternate does not require property from Loats Park.
2. Alternate $B-1$ does not impact significant recreational areas of the East Frederick Elementary School. By letter, dated October 14, 1985, the Board of Education of Frederick County ( $p, V-48$ ) has advised that the portion of the school property required for the proposed project is not critical or significant to the recreation needs of the local community. The Federal Highway Administration has concurred with this assessment. Therefore, no Section $4(f)$ involvement will be required under the selected alternate combination.
3. Your other concerns regarding the tributaries of Ballenger Creek and associated wetlands are addressed in this document in Section III-3c. Under the selected widening alternate, inside widening west of I-270 would not affect three tributaries of Ballenger Creek that cross under I-70, although some minor modifications to the existing drainage structures may be required. However, interchange reconstruction at I-270 (Alternate 4) would impact approximately 0.5 acre of wetland adjacent to another tributary and require a culvert extension at this stream.
4. Stormwater management and erosion control measures would be strictly enforced. The standards and specifications for infiltration practices issued by the Department of Natural Resources would be followed. Any highway runoff will be filtered for pollutants to the greatest extent possible and site-specific designs would be finalized during the design phase.

Maryland Historical Trust
June 16, 1980
Mr. Eugene T. Camponeschi, Chief
Bureau of Project Planning
State Highway Administration
PRO. BOX 717
300 West Preston Street
Baltimore, Maryland 21.203

## RE: I-5-70 from U.S. 15/350 <br> to West of East Patrick Street F 866-101-772

Dear Mr. Camponeschi:
Thank you for providing copies of the above referenced report for our review. I have discussed this report with Wayne Clark and have incorporated his comments into this letter.

The report generally addresses the nature of the archeological resources s. in the project areas. The historic discussion on Page 2 does not adequately develop the general historical developments in the area. Greater detail should have been provided by consulting Scharf's History of Western Maryland and Bailey ........... Mark's thesis on the settlement patterns of the Germans. The report does not but should stake the nature of the proposed improvements in the project areas. The report also needs to state either verbally or by the addition of a third map, the location of the areas surveyed, what percentage of the project area was surveyed during the current study and what percentage was surveyed during previous studies. The results of these surveys should be evaluated to determine the probability of other sites in the project area. In short, we require greater detail on the percentage and nature of the areas surveyed and a brief discussion on why the investigator feels that the survey results are sufficient to determine that significant sites do not exist in the unsurveyed portions of the project area. I concur with the opinion that Site 18 FR 144 and Area 1 are, in my. opinion, ineligible for placement on the National Register due to the loss of the integrity of the sites and the limited nature of the deposits.

I look forward to receiving the response to my request for a revision of the report. Unless the response indicates otherwise, the report indicates that the proposed development will not affect significant archeological sites. Your cooperation in obtaining the requested revision will be appreciated.

```
JRL/WEC/ca
C: Suffness, Rastian,
    Epperson, Schlagel
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Officer

Maryland Historical Trust
October 2, 1980

Mr. William F. Schneider, Jr.
Chief, Bureau of Project Planning
State Highway Administration
P.O. Box 717

Baltimore, Maryland 21203

RE: Addendum report on the archaeological reconnaissance of
Interstate 70 from Interstate 270 - F 866-101-772

Dear Mr. Schneider:
Our Staff Archaeologists have reviewed Terry Epperson's letter which adequately addresses the comments presented in our review letter dated June 16, 1980. The response was sufficient to concur that the areas not surveyed have a low probability of containing signficant archaeological sites and, therefore, will not require additional consideration.

Thank you for your cooperation in obtaining this additional data.

Sincerely,


Deputy State Historic Preservation Officer

NM/WEC/Ca
$\infty$ : Terry Epperson Rita Suffness
Mrs. Michel
Mrs. Louise Best


## Maryland Historical Trust

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

September 27, 1984

RE: Contract No. F866-101-772
I-70 from Mt. Phillip Road to Maryland Route 144
PDMS No. 101007

Dear Ms. Simpson:
Thank you for your letter of August 6, 1984 regarding the above-referenced project in Frederick County, Maryland.

We concur with your assessment that the frame house ( $A$ ) and the stone building (B) do not meet the National Register criteria.

We believe that the proposed alternates will have no adverse effect on the three historic properties which lie within the impact area: Linden Grove, Guilford and Prospect Hall. Because this is a determination of no adverse effect you must request the comments of the Advisory Council. Please send your request to:

Mr. Ron Anzalone
Advisory Council on Historic Preservation
Suite 809 - 1100 Pennsylvania Avenue, NW
Washington, DC 20004.
If you have any questions or comments please call Ms. Kim Kimlin at 269-2438.

GJA/KEK/hec

Sincerely,


George J. Andreve Environmental Review Administrator

cc: Mrs. Glenn Michel<br>Mr. G. Bernard Callan<br>Mrs. Ruth Pettijohn<br>Ms. Rita Suffness<br>Mr. Ron Anzalone

## Maryland Historical Trust

August 9, 1985
Ms. Cynthia D. Simpson
Acting Chief, Environmental Management
P. O. Box 717

707 N. Calvert Street
Baltimore, Maryland 21203-0717

RE: Contract No. F 866-101-772 I-70 from Mt. Phillip Road to MD Rt. 144
Frederick, Maryland

Dear Ms. Simpson:
Thank you for your letter of July 11,1985 regarding two additional historic properties located within the impact area of the above-referenced project.

We concur with your opinion that the house located on the southeast corner of the intersection of East Patrick Street and Shaws Road (Site II) is an in-ventory-quality site and not eligible for the National Register.

Park Hall (Site I) may possibly be eligible for the National Register. We concur with your proposed boundary for the site. We recommend that additional research be conducted by your staff especially regarding three of the past owners: Richard Potts (sold property in 1820), Caspar Mantz (owned property from l831 to 1851) and Amon Burgee (owned property from 1907 to 1944). Can a construction date for the buildings be determined? Ownership by Senator Richard Potts (1753-1808), a prominent Frederick County statesman, needs to be verified. Did he live at Park Hall? What information is available about Mantz and Burgee?

If you have any question, please call Kim Kimlin or George Andreve at 269-2438.

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|  | -7M, |
| - |  |
|  | J. Rodney Little |
|  | Director |
| : | State Historic Preservation |
| JRL/KEK/hec ${ }^{\text {a }}$ | Officer |
|  |  |
| cc: Mrs. Glenn Michel |  |
| Mr. G. Bernard Callan |  |
| Ms. Rita Suffness |  |

Maryland Historical Trust
February 7, 1986

Ms. Cynthia Simpson
Manager, Environmental Management
Maryland Department of Transportation
State Highway Administration
PO Box 717
707 N. Calvert Street
Baltimore, Maryland 21203-0717

$$
\begin{array}{ll}
\text { RE: } & \text { Contract No. F 866-101-772 } \\
\text { I-70 from Mt. Phillip Road } \\
\text { to Maryland Route } 144 \\
\text { Frederick, Maryland } \\
\text { P.D.M.S. No. } 101007
\end{array}
$$

Dear Ms. Simpson:
Thank you for your letter of November 25, 1985, regarding this project. Our office concurs with SHA that:

1. Park Hall (Dutrow Property) may be eligible for the National Register and the site boundary should be as proposed; and,
2. Alternate B-1 will have no effect on Park Hall.
Sincerely,
Director
State Historic Preservation
Officer

JRL/GJA/hec
cc: Mrs. Glenn Michel
Mr. G. Bernard Callan
Mr. Raymond L. Compton
U.S. Department of Transportation
Federal Highway Administration


Mr. Robert K. Garvey, Jr. Advisory Council on Historic Preservation The Old Post Office Building 1100 Pennsylvania Avenue Suite 809
Washington, D.C. 20004
Dear Mr. Garvey:
In accordance with 36 MFR 800.4 , we are requ ${ }^{\text {sting the comments }}$ of the Advisory Council on the No Adverse Effect determination on the Linden Grove, Guilford, and Prospect Hall Historic sites. These sites are located in the vicinity of an I-70 widening projest in Frederick, Maryland.

The following information is being provided in accordance with 36 CFR 800.13(a) to document this No Adverse Effect determination.

1. Title 23 U.S.C. vests the Federal Highway Administration with the responsibility for carrying out the Federal Aid Highway Program. The Federal Highway Administration is the lead agency for the $1-70$ widening project.
2. The improvements to $\mathrm{I}-70$ which are proposed are described in the enclosed Environmental Assessment/Section 4(f) Evaluation. The relationship of the proposed improvements to these sites are shown on figures lila and llb. Figures $9 a, 9 b$, and $9 c$ show the alternates proposed for the Maryland Route $355 / 85$ and South Street/Reichs Ford Road interchanges. A preferred alternate has not been identified in the latter areas.
3. Linden Grove was determined eligible for the National Register in April, 1981. Guilford-was listed on the Na-
tional Register in 1975, and Prospect Hall in 1980. They are described briefly on page I-9 of the enclosed document.
4. The criteria of adverse effect were examined in relation to these sites. It was concluded that the criteria do not apply for the following reasons:
a. No property from any of these sites will be destroyed or altered.
b. The sites will not be isolated from their surrounding environment, nor will the environment be altered.
c. No visual elements will be introduced that are out of character with the historic sites.
d. This item does not apply.
e. This item does not apply.
5. The State Historic Preservation Officers' staff member, in the enclosed September 27, 1984 letter, states that the sites will be affected, but not adversely.
6. The total estimated cost for design and construction is about $\$ 36,000,000$ which does not include the costs for planning and preliminary engineering. The Federal participation in this project is $90 \%$ of this cost.

We look forward to receiving your comments. Should you have any questions, please contact Paul Wettlaufer of my staff at (FTS) 922-4132.

Sincerely yours,
Emil Elinsky
Division Administrator


By: Fred J. Hempel Assistant Division Administrator

Enclosures

# BOARD OF EDUCATION OF FREDERICK COUNTY ANNEX 

7446 HAYWARD ROAD
FREDERICK, MARYLAND 21701
October 14, 1985

Mrs. Cynthia D. Simpson, Acting Chief Environmental Management Maryland Department of Transportation State Highway Administration P.O. Box 717/707 North Calvert Street Baltimore, Maryland 21203-0717

Dear Mrs. Simpson:
Re: Contract No. F 866-101-772 P.D.M.S. No 101007
Confirming our discussions of September 30, 1985 regarding the East Frederick Elementary School Site, please be advised as follows:

- The portion of the site required for the 1-70 relocation project is not critical to the recreation needs of the community. Public recreation activities are conducted elsewhere on the site and will not be affected by the project. In addition, you should be aware that a large county park (Pinecliff Park) serves the recreation needs of the community near the school. Recreation activities which could not be accommodated at East Frederick or at Pinecliff Park could be rescheduled for other nearby school grounds, if necessary.
- There is no park/school agreement covering this site and should one be executed in the future, the part of the site required for your project could be excluded.
- There are no plans to expand East Frederick Elementary or to further develop the portion of the site required by the project.

I reiterate the position stated in my letter of January 25, 1985 that our concern about the site is not public recreation but rather the fact that the site is already below the State guidelines for elementary school sites. The guidelines call for $15+$ acres. The current site is only 9 acres. Based on this consideration we cannot reduce the site.

If you need further information, please call me at 301/694-1507.
Sincerely,

WH:hg:85/176

cc: Dr. A. Thackston Mrs. Sherry Collate Mr. J. Mason



Adele Wilzack, R.N., M.S., Secretary Wililam M. Eichbaum, Assistant Secretary

December 5, 1984

Ms. Cynthia D. Simpson, Acting Chief Environmental Management
Bureau of Project Planning (Room 310 )
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

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\begin{aligned}
& \text { RE: } \text { P.D.M.S. No. } 101007 \\
& \text { Contract No. F 866-101-772 } \\
& \text { Interstate Route } 70 \\
& \text { Mt. Phillip Road to } \\
& \text { Maryland Route } 144
\end{aligned}
$$

Dear Ms. Simpson:
We have reviewed the Draft Air quality Analysis for the above subject project and have found that it is not inconsistent with the Administration's plans and objectives.

Thank you for the opportunity to review this analysis.
Sincerely,


Edward L. Carter, Chief Division of Air quality Planning and Data Systems
Air Management Administration
ELS: $c \omega$

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY<br>REGION 111<br>6TH AND WALNUT STREETS<br>PHILADELPHIA. PENNSYLVANIA 19106

DEC 141984

Ms. Cynthia D. Simpson, Acting Chief Environmental Management Bureau of Project Planning (Room 310) Maryland State Highway Administration 707 North Calvert Street Baltimore, Maryland 21202

Re: I-495, MD 190 to VA 193, Montgomery County, Maryland and Fairfax County, Virginia (A-FHW-0 $\varnothing$ (12-00) I-70, Mr. Phillip Road to MD 144, Frederick County, Maryland (A-FHW-0øø11-MD)

Dear Ms. Simpson:
We reviewed the air quality analyses performed for the above referenced projects. Based upon this review, we have no objection to either of the projects from from an air quality standpoint. As such, we have rated the documents 'LO' in EPA's classification system. Please note that these comments relate only to air quality impacts of the facility, and that we will comment on other impacts of the project when the appropriate documents are submitted for our review.

If you have any questions, or if we can be of further assistance, please contact Mr. William J. Hoffman of my staff at 215-597-7828.

Sincerely,


John R. Pomponio, Chief县ivironmental Impact and Marine Policy Branch

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## VI. APPENDIX

Attachment for Environmental Impact Documents
Revised: November 29, 1985
Bureau of Relocation Assistance
"SUMMARY OF THE RELOCATION ASSISTANCE PROGRAM OF THE
STATE HIGHWAY ADMINISTRATION OF MARYLAND"

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

The provisions of the Federal and State Law require the State Highway Administration to provide payments and services to persons displaced by a public project. The payments that are provided include replacement housing payments and/or moving costs. The maximum limits of the replacement housing payments are $\$ 15,000$ for owner-occupants and $\$ 4,000$ for tenantoccupants. Certain payments may also be made for increased mortgage interest costs and/or incidental expenses, provided that the total of all housing benefits does not exceed the above mentioned limits. 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 expenses are limited to a 50 mile radius. The expenses claimed for actual cost commercial moves must be supported by receipted bills. An inventory of the items to be moved must be prepared in all cases. In selfmoves, the State will negotiate an amount for payment, not to exceed the lowest acceptable bid obtained. The allowable expenses of a self-move may include amounts paid for equipment hired, the cost of using the business ${ }^{-}$own vehicles or equipment, wages paid to persons who physically participate in the move, the cost of actual supervision of the move, replacement insurance for the personal property moved, costs of licenses or permits required, and other related expenses.

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 the personal property is not moved but is replaced at the new location, the payment would be the lesser of the replacement cost minus the net proceeds of sale (or trade-in value) 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. When personal property is abandoned without an effort by the owner to dispose of the property for sale, unless permitted by the State, 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 $\$ 1,000$. All expenses must be supported by receipted bills. Time spent in the actual search may be reimbursed on an hourly basis, within the maximum limit.

In lieu of the payments described above, the business may elect 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 during the two taxable years prior to displacement.

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 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, the owner of the business may still be 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, the 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 from 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 nonprofit 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 along with required preliminary notice of possible displacment.

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 must be completed by the State Highway Administration before "housing as a last resort" can be utilized.

The "Uniform Relocation Assistance and Real Property Acquisition Policies Act of $1970^{\prime \prime}$ requires that the State Highway Administration shall not proceed with any phase of any project which will cause the relocation of any persons, 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.


[^0]:    a Impacts only as a result of Selected Inside/Outside Widening Alternate Combination. See footnote d for comparative costs.
    ${ }^{6}$ Selected Alternates 4 and B-1.
    CBased on outside widening which would result in worst case impacts.
    dComparative costs of the alternates reported here were excerpted from the May 28, 1985, Public Hearing brochure and are based on 1984 dollars. These costs are intended for comparative purposes only and no longer reflect the current costs of the various alternates.

[^1]:    cc: Martin Seldeen Richard Burgee

