## FINDING OF NO SIGNIFICANT IMPACT

CONTRACT NO. SM 751-101-571

## MARYLAND ROUTE 246

FROM MARYLAND ROUTE 5 TO WEST OF SARATOGA DRIVE ST. MARY'S COUNTY, MARYLAND


FEDERAL HIGHWAY ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT
FOR
WIDENING MD ROUTE 246
FROM MD 5 TO WEST OF SARATOGA DRIVE ST. MARY'S COUNTY


#### Abstract

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 Alternate 2. The Environmental Assessment has been independently evaluated by the FHWA 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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Study Area
Preferred Alternate 2
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## DECISION



MEMORANDUM

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

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

SUBJECT: Contract No. SM 751-101-571
MD 246 - MD 5 to Saratoga Drive
PDMS No. 183049

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 July, 1988. The decision to proceed with the FONSI recommending Alternate 2 was made by Administrator Rassoff at the Team Recommendation Meeting which was held June 17 th .

A summary of this meeting including the Project Management Team recommendation of the selected alternate is attached.

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


NJP: tn
Attachment
cc: Mr. John A. Agra, Jr.
Mr. Edward H. Meehan
Mr. Robert D. Douglass
Mr. Louis H. Eger, Jr.
Mr. Anthony M. Capizzi

## Maryland Department of Transportation State Highway Administration

## MEMORANDUM

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

FROM:
Louis H. Ene, Jr Deputy Director Project Development Revision

SUBJECT: Contract No. SM 751-101-571 (N) MD 246 - MD 5 to Saratoga Drive PDMS No. 183049

RE: Administrator's Concurrence Meeting, June 17, 1988
The Project Development Division has completed project planning studies for the proposed widening of MD 246 from MD 5 to Saratoga Drive. These studies have resulted in the selection of Alternate 2 as the recommended alternate for final design and construction. Alternate 2 is shown in the attached brochure.

Alternate 2 has received support from local citizens, St. Mary's County public and elected officials and members of the project planning team.

An Alternates Meeting was held May 5, 1987 at which approximately 51 local citizens attended. A Combined Location/Design Public Hearing was held March ind at which approximately 400 people attended. Alternate 2 was presented as the preferred alternate at the public hearing.

The selected alternate is as follows:

1) Mainline - It is recommended that Alternate 2 be constructed for this project. Alternate 2 proposes the construction of a 5 lane section from Maryland Route 5 to Saratoga Drive. This alternate which would generally follow the existing horizontal and vertical alignments would be designed to meet $40 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. design speed criteria.
2) Maryland Route 5/Maryland Route 246 - The Team recommends that Option $l$ be constructed for this intersection. Option 1 allows for a double left turning movement from Maryland Route 5 to Maryland Route 246. Option 1 also proposes the construction of a 90 degree connection between Great Mills Road and Maryland Route 246. The intersection between Maryland Route 5 and Great Mills Road will only allow right-in and right-out turning movements.

Parking in front of the High's store will be removed when this option is implemerted. Parking, however, will still be provided through the use of the existing parking lot adjacent to High's.
3) Maryland Route 237 /Maryland Route 246 intersection

Option 3 which proposes realigning the Maryland Route 237 /Maryland Route 246 intersection on new location is recommended by the Team.

Option 3 does not impact any wetlands and provides the best sight distance of the options studied.

The location of the cul-de-sac which will be constructed on Maryland Route 237 will be modified during final design.
4) Sidewalks - The Team recommends that grading for sidewalks be implemented along Maryland Route 246. The State Highway Administration will agree to construction of the sidewalks after receiving a written request by the County which addresses funding and maintenance issues.

Sidewalks have currently been included for approximately half of the length of the project. The final location of the sidewalk is to be established during final design.

Alternate 2 requires the displacement of one business, one vacant residence and two trailers. Alternate 2 also impacts approximately 0.6 acres of wetland and 2.8 acres of floodplain.

DHS:ds
Attachment

CC: Distribution List
Mr. Bob B. Myers
Mr. Robert Douglass
Mr. Earle S. Freedman
Mr. Jack F. Ross
Mr. James K. Gatley
Mr. Anthony M. Capizzi
Mr. Thomas C. Watts
Mr. Robert J. Houst

Mr. Louis H. Ege, Jr.
Mr. John Bruck
Ms. Angela B. Hawkins
Mr. John H. Grauer
Mr. Steve Miller, Jr.
Ms. Cynthia D. Simpson
Mr. William Bauerline
Mr. Geoffrey Kolberg
Mr. Robert J. Finck

## II. COMPARISON <br> OF ALTERNATES

TABLE 1
Comparison of Alternates


[^0]
## TABLE 1 (Continued)

## Comparison of Alternates



[^1]TABLE 1 (Concluded)
Comparison of Alternates

## Alternate 2 (Selected)

Estimated Cost ( $\mathrm{x} \$ 1,000$ )
Right-of-Way \&
Relocations
Construction
Engineering
Total
0
$1,053 \quad 8$

## 84

426
61
4,436
634
6,123

## MD 246/5 Intersection Option 1* Option 2 (Selected)

*Selected Option for construction. **Included in Selected Alternate 2.

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

III. SUMMARY OF ACTIONS AND RECOMMENDATIONS

## A. Background

## 1. Project Location

The Maryland Route 246 study area is located in the eastern portion of St. Mary's County, Maryland, on the southernmost tip of Maryland's Western Shore (see Figure 1). The roadway study corridor is approximately 1,000 feet wide and extends easterly from its intersection with Maryland Route 5 in Great Mills to approximately 700 feet west of Saratoga Drive in Lexington Park (see Figure 2).
2. Purpose of the Project

Maryland Route 246 is a state secondary highway serving southern St. Mary's County and Lexington Park. It is experiencing increased congestion as a result of residential and commercial development throughout the corridor. The existing strip development adjacent to the highway with numerous access points, combined with expanding residential development, contributes to increased traffic growth. It is anticipated that traffic operations along Maryland Route 246 will continue to deteriorate as development continues. The proposed action will reduce congestion and improve overall traffic operations in the study area.

Maryland Route 246 currently operates as a five-lane highway east of Saratoga Drive, as a four-lane highway between Suburban Drive and Saratoga Drive, and as a two-lane highway west of Suburban Drive. The proposed action would widen Maryland Route 246 to a uniform five-lane facility (two lanes in each direction with a continuous center left-turn lane) from west of Saratoga Drive to Maryland Route 5.

## 3. Project History

Maryland Route 246 first appeared in the 1975-1979 Secondary Highway Improvement Program for a four-lane urban reconstruct from Suburban Drive to Midway Drive. The project was funded for preliminary engineering only. Maryland Route 246 continued to appear in subsequent programs. It is now in the 19881993 Consolidated Transportation Program (CTP) for a multi-lane reconstruction from Maryland Route 5 to Saratoga Drive. All phases of the project are funded.

Maryland Route 246 first appeared in the 1964 Twenty Year Highway Needs Study (HNS) for resurfacing from Maryland Route 5 to the Patuxent Naval Station. It continued to appear in the HNS and Highway Needs Inventory (HNI) and is included in the 1986 HNI for a multi-lane reconstruction from Maryland Route 5 to Saratoga Drive.



The 1982 Comprehensive Land Use Plan of St. Mary's County identifies Maryland Route 246 as a "high accident route throughout its length" and recommends upgrading to improve capacity and reduce accidents. The plan also identifies Maryland Route 246 as an important cross-country highway and agrees with SHA's plans and programs for upgrading Maryland Route 246.

The Draft Lexington Park Transportation Plan dated April 1985, identified Maryland Route 246 as being located within an area of continuing development and growth. The plan made several recommendations for improvements to Maryland Route 246 to relieve existing congestion and limit future congestion. The recommended solutions for "spot improvements" agree with SHA's recent Special Projects Program improvements. The roadway improvement to Maryland Route 246 recommends a five-lane roadway from Maryland Route 5 to Maryland Route 235, which is consistent with SHA's proposed improvement.

The St. Mary's County Commissioners, in a letter dated May 18, 1987, identified Maryland Route 246 as the County's highest highway priority and encouraged efforts by SHA to expedite construction of the project. The Commissioners also requested that Maryland Route 237 from Maryland Route 246 to the County's proposed extension of Megs Road be added to the Maryland Route 246 project planning study, which it was.

## 4. Associated Improvements in the Study Area

Two recent Special Projects Program Improvements are associated with Maryland Route 246. In October 1987, a new signal was installed at the Maryland Route $246 /$ Maryland Route 237 intersection. The widening and resurfacing of Maryland Route 246 from Saratoga Drive to Midway Drive was completed in November 1987. This improvement widened Maryland Route 246 and provided a center leftturn lane and reconstruction of signals at Midway Drive, Essex Drive, and the St. Mary's Shopping Center.

The County project to extend Megs Road from Maryland Route 237 to Jarboesville Run has been granted location approval and funding for construction.

Other major construction/reconstruction projects associated with the Maryland Route 246 improvements include:

- Maryland Route 471 - Indian Bridge Road study to replace bridge 18028 over St. Mary's River. This project comes under the 1988-1993 Consolidated Transportation Program-Secondary Development and Evaluation Program, and is funded for engineering only.

III-2

- Maryland Route 237 - Chancellors Run Road study to upgrade and widen Maryland Route 237 to a multi-lane highway from Maryland Route 246 to Maryland Route 235. This project was added to the 1988-1993 Consolidated Transportation Program-Development and Evaluation Program for planning only, and the 1986 revision of the Highway Needs Inventory. It is also included in the 1988 Special Projects Program for St. Mary's County for safety and resurfacing from Maryland Route 246 to Maryland Route 235.
- Maryland Route 235 - The 1986 revision of the Highway Needs Inventory includes a divided highway reconstruction from Maryland Route 246 to Maryland Route 4.
- Maryland Route 5 - The 1986 revision of the Highway Needs Inventory includes a multilane reconstruction from Maryland Route 246 to Maryland Route 4.


## B. Alternates Considered

## 1. Preliminary Alternates

Four Build Alternates were studied for the proposed improvement of Maryland Route 246. All Build Alternates generally follow the centerline of existing Maryland Route 246 from Maryland Route 5 to 700 feet west of Saratoga Drive. The Build Alternates are differentiated by their typical sections, design speeds, and right-of-way impacts.

Alternates 3, 4, and 5 were dropped from consideration because of increased right-of-way requirements and impacts to adjacent buildings.

## Alternate 3 (including Alternate 3 Modified)

Alternate 3 proposed widening Maryland Route 246 to a five-lane open section with 10 -foot shoulders along the existing horizontal and vertical alignments. The design speed is 40 mph for Alternate 3. Alternate 3 Modified had the same typical section and horizontal alignment as Alternate 3 . However, the vertical profile for Alternate 3 Modified included improvements to comply with a 50 mph design speed in accordance with A Policy of Geometric Design of Highways and Streets (PGDHS), 1984. The addition of the shoulders plus safety grading would have required the acquisition of additional right-of-way. Alternate

3 and Alternate 3 Modified were dropped from further studies due to the amount of additional right-of-way required and corresponding, impacts to wetlands.

## Alternate 4

Alternate 4 proposed widening Maryland Route 246 to a five-lane curbed section along the existing horizontal alignment. The vertical profile for this alternate included improvements to stopping sight distances to comply with a 50 mph design speed in accordance with PGDHS (1984). The graded area behind the curb is 14 feet. This would be modified where necessary to avoid impacting adjacent property and improvements. Alternate 4 was dropped from further studies because it would require additional right-of-way to accommodate the vertical profile changes, which would displace wetlands.

## Alternate 5

Alternate 5 proposed widening Maryland Route 246 to a five-lane curbed section along the existing horizontal alignment. The typical cross-section is the same as Alternate 2. The vertical profile for this alternate included improvements to comply with a 40 mph design speed in accordance with PGDHS (1984). The alternate required the same wetland acreage as Alternate 2. Alternate 5 was dropped from further studies because it exhibited only marginal improvements over Alternate 2, which already met the design criteria.
2. Alternates Presented at Public Hearing
a. General

A Combined Location/Design Public Hearing was held on March 2, 1988, at Great Mills High School. A No-Build Alternate and a Preferred Build Alternate were presented.

## b. Alternate 1 (No-Build)

Alternate 1 would require no expenditure of funds other than for routine maintenance or short-term improvements to the existing intersections.
c. Selected Alternate 2

Selected Alternate 2 proposes widening Maryland Route 246 to a five-lane curbed section along the existing horizontal and vertical alignments (see Figures 3a-i). The typical cross-section is shown on Figure 4. The major portion of the proposed 65 -foot roadway would be constructed within the existing 80 -foot right-of-way. Graded area behind the curb is seven feet. This alternate satisfies a 40 mph design speed in accordance with PGDHS (1984).



MARYLAND ROUTE 246
Maryland Route 5 to $700^{\prime}$ West of Saratoga Drive

## INTERSECTION OF MARYLAND ROUTE 246 AT MARYLAND ROUTE 5 <br> SELECTED ALTERNATE 2 OPTION 2










At the request of the St. Mary's County Commissioners, improvements to Maryland Route 237 from Maryland Route 246 to the County's proposed extension of Pegs Road has been added to the proposed project as part of Alternate 2.

Channelization and geometric improvements are planned for Maryland Route 246 at Maryland Route 5. Construction for geometric improvements is scheduled to begin in fiscal year 1992.

Intersection improvements are proposed for the Maryland Route 5/Maryland Route 246 intersection and the Maryland Route 237 /Maryland Route 246 intersection. Options for both of these intersections are as follows:
Intersection of Maryland Route 246 at Maryland Route 237 (Chancellors Run Road)
Intersection Option 1 - This option calls for widening of Maryland Route 237 to a 68 -foot closed section roadway. The intersection angle at Maryland Route 246 will be approximately $80^{\circ}$, and the Maryland Route 237 southbound approach to the intersection will be 38 feet wide to accommodate double lefts and a through right-turn lane. Maryland Route 237 transitions to 52 feet just north of the proposed extension of Pegs Road, and transitions down to the existing cross -section approximately 260 feet north of Pegs Road. Maryland Route 246 will be widened to 74 feet to accommodate two through lanes in each direction, and a double left-turn lane for turning movements from Maryland Route 246 to Maryland Route 237. Approximately 0.79 acre of additional right-of-way will be required for this option.

Intersection Option 2 - This option calls for widening of Maryland Route 237 to a 68 -foot closed section roadway. The intersection angle at Maryland Route 246 will be approximately $65^{\circ}$, and the Maryland Route 237 southbound approach to the intersection will be 38 feet wide to accommodate double lefts and a through right-turn lane. Maryland Route 237 transitions to 52 feet just north of the proposed extension of legs Road, and transitions down to the existing cross-section, approximately 260 feet north of Pegs Road. This option follows the existing alignment of Maryland Route 237 and requires 0.80 acre of additional right-of-way. Maryland Route 246 will be widened to 74 feet to accommodate two through lanes in each direction, and a northbound double leftturn lane.

Intersection Selected Option 3 - This option calls for realigning Maryland Route 237 approximately 470 feet northeast of its existing intersection with Maryland Route 246. The proposed intersection angle is $90^{\circ}$. The Maryland Route

237 southbound approach to the intersection will be 38 feet wide to accommodate double lefts and a through right-turn lane. Maryland Route 237 transitions to 52 feet just north of the proposed extension of legs Road, and transitions down to the existing cross section approximately 260 feet north of legs Road. Maryland Route 246 will be widened to 74 feet to accommodate two through lanes in each direction and a northbound left-turn lane. Approximately 1.57 acres of additional right-of-way will be required for this option. This is the selected option for construction at this intersection.

## Intersection of Maryland Route 246 at Maryland Route 5

Intersection Selected Option 1- This option calls for widening southbound Maryland Route 246 to 65 feet, or five lanes. This widening will allow for two single left-turning lanes and two free right-turning lanes. Maryland Route 5 will be widened to 48 feet. This widening will permit one eastbound through lane and one westbound through lane, as well as an eastbound double left-turn lane. Great Mills Road will connect to Maryland Route 246 , approximately 250 feet west of its existing intersection, and will be realigned to provide a $90^{\circ}$ connection. A left turn would be prevented at the intersection of Maryland Route 5 and Great Mills Road. Approximately 0.51 additional acre of right-ofway will be required for this option. This is the selected option for construction at this intersection.

Intersection Option 2 - This option calls for the same improvements to Maryland Route 246 as Option 1 except that a cul-de-sac will be installed on Cedar Point Road, prohibiting direct access to Maryland Route 246. Approximately 0.51 additional acre of right-of-way will be required for this option.
C. Service Characteristics

1. General

Maryland Route 246 currently operates as a five-lane highway east of Saratoga Drive, as a four-lane highway between Saratoga Drive and Suburban Drive, and as a two-lane highway west of Suburban Drive. The proposed action would widen Maryland Route 246 to a uniform five-lane facility (two lanes in each direction with a continuous left-turn lane in the center) from Saratoga Drive to Maryland Route 5.

## 2. Traffic

Maryland Route 246 currently experiences congestion during peak hours. As development increases throughout the study area, traffic operations will degenerate to an unacceptable level of service by the design year 2015.

The current average daily traffic on Maryland Route 246 varies from 10,000 vehicles per day near Maryland Route 5 to 18,000 vehicles per day near Saratoga Drive. Traffic forecasts predict that the average daily traffic volumes for the design year 2015 will vary from 19,000 vehicles per day near Maryland Route 5 to 34,000 vehicles per day near Saratoga Drive.

The two major intersections in the study area (at Maryland Routes 5 and 237) will operate at level of service $F$ in the design year 2015 if improvements are not implemented. Improvements to these intersections are required to reach an acceptable level of service.

The No-Build Alternate does not address the existing or projected traffic congestion problems in the study area. Consequently, access to services and facilities for traffic using Maryland Route 246 would become increasingly difficult. Congestion and worsening traffic operations due to increasing traffic would further jeopardize traffic safety and increase the potential for accidents. Travel time and costs, as well as distances travelled, would be increased as motorists either experience delays or seek alternative routes to avoid congestion.

Selected Alternate 2 will upgrade Maryland Route 246 from Maryland Route 5 to west of Saratoga Drive to a five-lane facility, and will ensure that sufficient roadway capacity will be available to accommodate the traffic increases expected in the future. The improvement of the various intersections along Maryland Route 246 will also aid in providing a safe and efficient transportation facility for this heavily congested area.

The improvements under Selected Alternate 2 would increase capacity which, in turn, would provide relief from congestion and improve traffic service. Safety and access to facilities and services, as well as emergency service response time, also would improve throughout the corridor. Travel time would be shortened as fewer delays are experienced, especially during peak hour periods. These improvements would also reduce the impacts of traffic on other streets in the study area that are used by those travelers seeking alternative routes to
avoid congestion and delays on Maryland Route 246.
3. Accident Summary

Maryland Route 246, from Maryland Route 5 to Saratoga Drive, experienced an average accident rate of 567 accidents for every one hundred million vehicle miles ( mvm ) of travel for the four-year period of 1983 through 1986. This rate is significantly higher than the weighted statewide average rate of 368 accidents /100 mum for highways of similar type of design.

There were 250 accidents reported during the four-year study period. These accidents resulted in a monetary loss to the motoring and general public of $\$ 6$ million /100 mum. The accident numbers are listed below by severity indicating the number of persons killed and injured.


The rate of fatal accidents was significantly above the statewide average rate. These accidents were as follows: 1 - pedestrian, 1 - angle, 1 - fixed object. The pedestrian accident involved a hit and run driver. It is assumed the pedestrian was walking in the traveled portion of the highway. The angle accident involved a car failing to field the right-of-way to a motorcycle at the intersection of Australia Drive. The fixed object fatal accident involved a car attempting to pass another car at a high rate of speed. The driver lost control, hit a curb, and flipped the car over.

The significant collision types experienced on Maryland Route 246 , in comparison to the statewide average rates for this type of highway, are listed below.

|  | Number of Accidents <br> $(1983-1986)$ | Rate/ <br> 100 mvm | Statewide <br> Rate |
| :--- | :---: | :---: | :---: |
| Collision Type |  |  |  |
| Angle | 48 | 108.8 | 59.8 |
| Rear End | 63 | 143.0 | 95.9 |
| Sideswipe | 20 | 45.3 | 27.7 |
| Left Turn | 25 | 56.7 | 38.3 |
| Pedestrian | 18 | 40.8 | 16.3 |
| Other Collision | 33 | 74.8 | 43.5 |

The accident rates for angle, rear end, sideswipe, left turn, and pedestrian collisions were significantly above the statewide averages. Most of the rear end, fixed object, and opposite direction accidents occurred in the western portion of the study area, from Maryland Route 5 to Forest Run Drive. The left turn and pedestrian accidents were predominant in the eastern portion of the study area, from Forest Run to Saratoga Drive. Most of these accidents were associated with the numerous intersections and driveways located within the study limits. The fixed object and opposite direction accident rates were both higher than their respective statewide average rates, but not at a significant level.

Percentages for night accidents and wet surface accidents percentages are very close to the statewide average percentages as shown below.

|  | No. | \% | Statewide Z |
| :--- | :---: | :---: | :---: |
|  |  |  |  |
| Night Accidents | 95 | 38.0 | 35.7 |
| Wet Surface Accidents | 57 | 22.8 | 26.4 |

There were two locations meeting the criteria of High Accident Intersections within the study limits. These intersections are listed below:

Maryland Route 246 at Maryland Route 237-1985 - 9 accidents
Maryland Route 246 at Saratoga Drive - 1984 - 9 accidents

- 1985 - 7 accidents
- 1986 - 10 accidents

There were three sections of highway meeting the criteria of High Accident Sections. These sections are listed below:

Maryland Route 246, from east of Langley Road to Chancellors Run Road (Maryland Route 237)

1985-19 accidents
Maryland Route 246, from east of Quatman Road to west of Saratoga Drive
1985 - 21 accidents
1985-23 accidents
Maryland Route 246 , from west of Saratoga Drive to west of Shangrila Drive
1985-26 accidents
1986-32 accidents
The entire study section is currently experiencing an accident rate significantly above the statewide average. However, the severity and collision type rates are much higher on the east side of the study area, from Forest Run Drive to Saratoga Drive. The total accident rate is 967 accidents / 100 mum for this section of highway compared to 405 accidents /100 mam for the western portion of Maryland Route 246, from Maryland Route 5 to Forest Run Drive. In the section of highway from Forest Run Drive to Saratoga Drive, angle, rear end, and sideswipe accidents were all significantly above the statewide average rates. In the section of roadway from Maryland Route 5 to Forest Run Drive, accident rates for rear end and pedestrian accidents were significantly above the statewide average rates. Rear end accidents were predominant in both the two-lane and four-lane sections.

Under the No-Build Alternate, existing conditions mentioned above will continue to exist. If the highway remains unchanged, the number of accidents would be expected to rise as traffic volumes increase, thereby allowing the potential for injury and death resulting from these accidents to continue.

Selected Alternate 2 proposes a five-lane highway providing for a two-way center left turn lane. This type of design is usually implemented when a highway is experiencing such problems as high left turn volumes, limited right-of-way, and side friction due to the numerous business driveways and intersections. The five-lane design highway would provide increased capacity and would also reduce the total accident rate and decrease the total accident cost. Under this design, significant reductions in the opposite direction and left turn type collisions, and a slight reduction in rear end accidents would be anticipated. Pedestrian accidents may increase due to the added lane the pedestrian would have to cross, in addition to the fact that there is no
pedestrian refuge in the middle of the highway. Sideswipe accidents may increase due to increased weaving to and from the center turn lane. There is also a possibility of angle accidents increasing due to the change in the number of lanes that motorists entering the highway from driveways and side streets would have to cross.

With the implementation of a five-lane highway with a two-way center left turn lane as proposed under Selected Alternate 2, an accident rate of approximately 488 accidents $/ 100 \mathrm{mvm}$ is anticipated. This alternate will result in an accident cost of approximately $\$ 4.2$ million/ 100 mvm of travel and bring about an accident cost decrease of $\$ 1.8$ million /100 mam over the existing highway.

In summary, the entire section of Maryland Route 246 is experiencing an accident rate significantly above the statewide average. The accident rate for the four-lane section of highway from Forest Run Drive to Saratoga Drive is much higher than that for the two -lane section of highway from Maryland Route 5 to Forest Run Drive. The rates of angle, rear end, sideswipe, left turn, and pedestrian collisions for the entire section of highway are also higher than their respective statewide rates. The implementation of a five-lane highway should result in reducing the accident rates and the accident cost that is now being experienced.
D. Design Considerations

The engineering aspects of the proposed alignment are based on 40 mph speed criteria.

Selected Alternate 2 proposes widening Maryland Route 246 to a five-lane curbed section along the existing horizontal and vertical alignments from Maryland Route 5 to 700 feet west of Saratoga Drive. The typical cross section is shown on Figure 4. The major portion of the proposed 65-foot roadway would be constructed within the existing 80 -foot right-of-way. Graded area behind the curb is seven feet.

Intersection improvements are proposed at two locations. Selected Option l for the Maryland Route $246 /$ Maryland Route 5 intersection calls for widening southbound Maryland Route 246 to 65 feet, or five lanes. Maryland Route 5 will be widened to 48 feet. Selected Option 3 for the Maryland Route $246 /$ Maryland Route 237 intersection calls for realigning Maryland Route 237 approximately 470 feet northwest of its existing intersection with Maryland Route 246. The
proposed intersection angle is $90^{\circ}$. The Maryland Route 237 southbound approach to the intersection will be 38 feet wide. Maryland Route 237 transitions to 52 feet just north of the County's proposed extension of Megs Road, and transitions down to the existing cross section approximately 260 feet north of Megs Road. Maryland Route 246 will be widened to 74 feet (improvements to Maryland Route 237 are now included as part of Selected Alternate 2).
E. Environmental Summary

The following is a summary of the environmental impacts associated with Selected Alternate 2.

## 1. Social Impacts

## a. Residential and Commercial Displacements

Selected Alternate 2 requires the acquisition of additional right-of-way. The preliminary relocation and right-of-way report for Alternate 2 is summarized below and is available for review at the State Highway Administration, 707 North Calvert Street, Baltimore, Maryland 21202. Selected Alternate 2 requires the acquisition of one tenant-occupied residence, one entire business, and one structure associated with a business. The Environmental Assessment document stated that the tenant-occupied residence houses an elderly, handicapped, minority individual. Since the completion of the EA, the tenant has vacated the premises and the residence is unoccupied. One mobile home will be relocated under Selected Alternate 2. Another mobile home would be relocated under Selected Option 3 of the Maryland Route 246 /Maryland Route 237 intersection improvement options. The Housing of Last Resort Program will be required to rehouse both residential displacements.* The relocation assistance required as a result of this project can be resolved in a timely and humane fashion and in accordance with the requirements of the Uniform Relocation Assistance and Land Acquisition Policies Act of 1970 (P.L. 91-646) and its Amendments of 1988.

## Title VI Statement

It is the policy of the Maryland State Highway Administration to ensure compliance with the provisions of Title VI of the Civil Rights Act of 1964 , and related civil rights laws and regulations which prohibit discrimination on the grounds of race, color, sex, national origin, age, religion, physical or mental handicap in all State Highway Administration program projects funded in whole or in part by
*The loss of a motor home community to a new subdivision (TOSCA) and the potential loss of housing due to the widening of Maryland Route 246 could cause a shortage of low to moderate income housing.
the Federal Highway Administration. The State Highway Administration will not discriminate in highway planning, highway design, highway construction, the acquisition of right-of-way, or the provision of relocation advisory assistance. This policy has been incorporated into all levels of the highway planning process in order that proper consideration may be given to the social, economic, and environmental effects of all highway projects.
Alleged discriminatory actions should be addressed to the Equal Opportunity Section of the Maryland State Highway Administration for investigation.
b. Effects on Minority, Elderly, and Handicapped Individuals

One single-family home is located across from Suburban Mobile Estates at approximately Station 96. This structure is within the proposed new right-ofway. The Environmental Assessment stated that the structure's tenant occupant is an elderly minority individual who is handicapped; however, the property has since been vacated. Therefore, no minority, elderly, or handicapped persons would be affected. Joe Baker Village and Bayside Nursing Home serve the needs of these individuals; however, neither of these facilities will be impacted by the project.
c. Disruption of Neighborhoods and Communities

Selected Alternate 2 would not impact the social integrity and cohesion of nearby local communities along Maryland Route 246 . The project would require additional right-of-way acquisition, but because the selected Alternate follows the existing horizontal alignment, none of the communities would be impacted.

## d. Effects On Access to Services and Facilities

The No-Build Alternate does not address the existing or projected traffic congestion problems in the study area. Consequently, access to services and facilities for traffic using Maryland Route 246 would become increasingly difficult. Travel time and costs, as well as distances travelled, would be increased as motorists either experience delays or seek alternative routes to avoid congestion.

Selected Alternate 2 will upgrade Maryland Route 246 to a five-lane facility (two lanes each direction with a continuous left turn lane), and will ensure that sufficient roadway capacity will be available to accommodate the current traffic increases expected in the future. The improvement of various intersections along Maryland Route 246 will also aid in providing a safe and efficient transportation facility for this heavily congested area.

These improvements would increase capacity, which, in turn, would provide relief from congestion and improve traffic service. Safety and access to facilities and service, as well as emergency service response time, also would improve throughout the corridor. Travel time would be shortened as fewer delays are experienced, especially during peak hour periods. These improvements would also reduce the impacts of traffic on other streets in the study area that are used by those travelers seeking alternative routes to avoid congestion and delays on Maryland Route 246.

## 2. Economic Impacts

## a. Effects on Local Businesses

Impacts on local businesses take two basic forms - structural impacts and relocation, and loss of parking. Selected Alternate 2 requires the acquisition of one small business (less than 10 employees). The impacts are related to the loss of some parking.

Long-term benefits of building Selected Alternate 2 include improved access to places of employment and to commercial centers. Providing an additional travel lane in each direction and a center turning lane will make access to businesses easier. This is particularly true at the east end of the project where more development has occurred and where traffic congestion problems are more prevalent.

## b. Effects on Regional Business Activities

The St. Mary's County Comprehensive Land Use Plan (revised 1982) identifies Lexington Park not only as "the major employment and population center of the county", but also as "the most important activity center in the entire mriCounty Region" (p.88), consisting of Calvert, Charles and St. Mary's Counties.

Alternate 1 (No-Build Alternate) would have impacts on the regional economy. Maryland Routes 5, 4, and 235 are major commuter routes linking the market areas and employment centers of Waldorf, Prince Frederick and Lexington Park. Many employers have located along Maryland Route 246. Not alleviating congestion and traffic safety and service problems along Maryland Route 246 would lengthen the amount of time it takes to commute, making the area a less attractive place to work or locate businesses. The Selected Alternate reduces all these impacts and alleviates congestion in the study area. Providing the additional lanes would be an important step in addressing the transportation needs of this growing
area. The Selected Alternate would have no adverse effect on the regional economy.

## c. Effects on Tax Base

The improvements to Maryland Route 246 would help encourage the continuing development of this corridor and its vicinity as the major employment and population center for St. Mary's County and the Tri-County Region. The widening would accommodate this growth and commercial/residential expansion, which in turn would have a positive impact on the county's tax base and tax revenues.
3. Land Use Impacts

Alternate 1 (No-Build) is not consistent with future plans for the area and corridor. The proposed improvements under the Selected Alternate 2 will relieve the congestion on the existing facility, and are compatible with the County's Comprehensive Plan adopted in 1982 and presently undergoing revision, as well as the Lexington Park Transportation Plan adopted in 1985.

These improvements would help accommodate planned commercial and residential growth. These plans indicate that the study area is to remain in residential/commercial use. Additional growth in vacant areas would be consistent with the existing character of the study area.
4. Historic and Cultural Impacts

The Selected Alternate will have no effect on any historic structures or archeological sites.
5. Public Parks and Recreational Area Impacts

The Selected Alternate would not require any right-of-way from public parks or recreational areas.
6. Natural Environment Impacts
a. Geology, Topography, and Soils

Because of the relatively flat terrain in the study area, (ie., few steep slopes), no severe cuts are anticipated for the proposed construction of Selected Alternate 2.

Neither does the site contain prime, unique, statewide, or locally important farmland, according to the U.S. Department of Agriculture, Soil Conservation Service. Some farmland will be required for construction, but these areas are not considered to contain prime farmland soils. Moreover, the project area is zoned for commercial and residential use. Land currently in agricultural use
occurs within the required rights-of-way for the No-Build and Selected Alternates as listed below:


Impacts to the 100 -year floodplain were studied in accordance with Executive Order 11988. The St. Mary's River 100-year floodplain inundates the Maryland Route $5 / 246$ intersection, according to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM). The construction of the Selected Alternate would have insignificant impacts on the St. Mary's floodplain because no levees or encroachments are proposed for the lane additions. The Alternate Mapping shows the location of the floodplain.

In accordance with the requirements of Executive Order 11988, the impacts of each encroachment were preliminarily evaluated to determine their significance. A significant encroachment would involve one of the following:

- High probability of loss of human life
- Likely future damage that could be substantial in cost or disruption
- Disruption of an emergency or evacuation route
- Notable adverse impact on "natural and beneficial floodplain values"
Maryland Route 246 is situated on a ridge line between Jarboesville Run and Hillton Run. Because of this ridge top location, small drainage areas contribute to the cross culverts. Consequently, floodplains of very limited magnitude exist. The 100 -year discharge for the Selected Alternate increases at the most by 2 percent for any stream crossing. Therefore, the floodplain conditions (elevations, velocity) are of the same order of magnitude both with and without the Selected Alternate. The construction of the Selected Alternate would not create any significant increase in flood elevation or stream velocities in the intermittent tributaries to Jarboesville or Milton Run.

Use of the most advanced sediment and erosion control techniques and stormwater management controls available will ensure that none of the encroachments will result in risks or impacts to the beneficial floodplain values or provide direct or indirect support to further development within the floodplain. Preliminary analysis, in accordance with Executive Order 11988, indicates that no significant floodplain impacts are expected to occur as a result of the Selected Build Alternate, Alternate 2.

## 2) Surface Water

The primary short-term effect on the study area and surface waters would be increased sedimentation in the streams.

Final design for the selected alternate will include plans for grading, erosion and sediment control, as well as stormwater management, in accordance with the state and county regulations. The minimum stormwater control requirement for St. Mary's County is that management measures be provided to maintain the post-development peak discharges for a 24 -hour, 2- and 10 -year frequency storm event at a level that is less than or equal to the pre-development peak discharge rate. Review and approval of these plans by the Maryland Department of Natural Resources, Water Resources Administration, Sediment and Stormwater Division, will be required.

The project will be designed in accordance with the Stormwater Resources Administration's regulations 0.01.10 Comar 08.05.05 "Stormwater Management", effective July 1, 1984, which require water quality to be addressed in final design. These regulations stipulate that the order of preference for stormwater management is as follows:

- Infiltration of runoff on site.
- Flow attenuation by use of open vegetated swales and natural depressions.
- Stormwater retention structures.


## 3) Groundwater

The potential to pollute groundwater aquifers is nearly always present with highway construction due to the possibility of surface runoff pollutants infiltrating into an aquifer. Typical pollutants include very fine dust and dirt; toxic materials (heavy metals, pesticides) such as lead, zinc and copper, and nickel and chromium in smaller amounts; and salt and sand. The only aquifer in the study area that is in direct contact with surface runoff and surface
water is the unconsolidated surface (sands and gravels) aquifer. This aquifer would be expected to show increases in the highway runoff constituents as impervious cover will be increased by the addition of lanes and shoulders. However, due to the depth of the major aquifers in the study area, the Selected Alternate is not expected to impact the existing groundwater conditions (see the Alternate Mapping).

> c. Ecology

## 1) Terrestrial Habitat

The following acreage of wooded habitat and wetlands would be required for the No-Build and Selected Build Alternates:

| Alternate No. |  | Woodlands (acres) |
| :---: | :---: | :---: |
| 1 (No-Build) | 0 | 0 |
| 2 (Selected) | 1.68 | 0.6 |

Except for the woodland or wetland acreage required, the balance of the terrestrial habitat/ground cover is either old field, under cultivation, or developed. In some cases, wooded wetlands helped comprise the total woodland acreage above.
2) Aquatic Habitat

Pursuant to Executive Order 11990, Protection of Wetlands, it was determined that roadway construction (i.e., widening) will affect several wetland areas along Maryland Route 246 . These wetlands are shown on the Alternate Mapping. Wetland impacts, by wetland site number, are described in Table 2.

TABLE 2
Wetland Impacts By Alternate


III-18

TABLE 2 (Continued)
Wetland Impacts By Alternate

|  | Acreage |  |
| :---: | :---: | :---: |
| Wetland <br> Site No. | (No-Build) <br> Alternate <br> 1 | (Selected) <br> Alternate <br> 2 |
|  | 0 | 0.01 |
| 6 | 0 | 0.20 |
| 7 | 0 | 0.05 |
| 8 | 0 | 0.03 |
| 9 | 0 | 0.01 |
| 10 | 0 | 0 |
| 11 | 0 | 0 |

*0.05=0ption $1,<0.03=0 \mathrm{ption} 2,0=0$ ption 3 Selected

These impacts were quantified in accordance with Executive Order 11990. Total avoidance of many of these wetland areas is not feasible when compared with the high cost of relocations and displacements associated with realignment; and in many cases, an alignment shift to avoid a wetland would result in greater impacts to the wetland on the opposite side of the road.

A Section 404 permit may be required from the U.S. Army Corps of Engineers for placement of fill within these wetlands. Suitable replacement sites for nontidal wetlands will be coordinated with the appropriate state and federal agencies and selected during the final design phase.
3) Wildife

The proposed Maryland Route 246 widening will have a minor impact on wildife since the roadway corridor is already heavily developed. However, Alternate 2 , the Selected Alternate, would require additional right-of-way, some of which would be through woodlands, cut-over areas, and old field habitat.
good approximation can be obtained by reviewing the acreage of woodland impacted. Any loss of habitat is generally accompanied by a proportional loss in the animal populations inhabiting those areas. Any affected animal species would be forced to locate a new, suitable habitat.
4) Rare, Threatened, or Endangered Species

Coordination with the Maryland Department of Natural Resources and U.S. Fish and Wildlife Service has revealed there are no known populations of statelisted or federally-listed rare, threatened, or endangered species in the study area.
7. Noise Impacts
a. Analysis of Impact of Alternates

In accordance with the 23 CFR 772, this project was analyzed for noise impacts in accordance with SHA's Type I program. As was described previously, the proposed project consists of the widening of Maryland Route 246 to 5 lanes which will provide a continuous left-turning lane.

The Type I program addresses noise impacts created by new construction or reconstruction projects. Noise mitigation is considered under this program when Federal Highway Administration (FHWA) Noise Abatement Criteria are approached or exceeded or when predicted noise levels exceed the existing level by 10 dBA or more. The Noise Abatement Criteria for residential areas is 67 decibels. The land use adjacent to the study area of Maryland Route 246 is primarily residential.

The following items were considered in determining potential noise impacts:
1- Identification of existing land use
2- Existing noise levels
3- Prediction of future design year noise levels
4- Potential traffic increases
The existing noise levels as well as the future design year build and nobuild noise levels are shown in Table 3 . As can be seen, both future build and no-build levels will approach or exceed the Noise Abatement Criteria of 67 dBA. There would be a maximum 10 decibel increase with the build alternate when compared to existing noise levels.


NSA 12 was an additional site and was analyzed after initial noise monitoring.
1 Based on a square foot cost of $\$ 27.00$
3 Abatement was not analyzed because of access problems that would occur with driveways and a road which exists in the area.
Commercial land use in front of mobile home site
4 Commercial land use
5 Not effective because of break in the wall at the mobile home entrance

Several types of noise mitigation were investigated and considered for this project (see below). Noise abatement is considered when the FHWA Noise Abatement Criteria are exceeded when noise levels increase 10 dBA or more over the existing levels.

The factors considered under the Type I program when determining whether mitigation is required and whether the mitigation is reasonable and feasible are:
o Whether Federal Highway Administration Noise Abatement Criteria are approached or exceeded - 67 dBA for residential areas
o Whether a substantial (10 ABA or more) increase over ambient levels would occur
o Whether a substantial noise increase would result from the highway project - minimum of 5 -dBA increase - of Build over No-Build levels in the design year of the project

- Whether a feasible method is available to reduce the noise
o Whether the noise mitigation is cost effective for those receptors that are impacted - approximately $\$ 40,000$ per residence
o Whether the mitigation is acceptable to affected property owners
0 The age of the impacted homes relative to the age of the highway
o Whether funds are available
o Environmental impacts of the mitigation proposal
When design year $L_{\text {eq }}$ noise levels are projected to exceed the abatement criteria or increase ambient conditions by 10 aBA or more, noise abatement measures (in general, noise barriers) are considered to minimize impacts. Consideration is based on the size of the impacted area (number of structures, spatial distribution of structures, etc.), the predominant activities carried on within the area, the visual impact of the control measure, practicality of construction, feasibility, and reasonableness.

An effective barrier should, in general, extend in both directions to four times the distance between receiver and roadway (source). In addition, an effective barrier should provide a $7-10 \mathrm{dBA}$ reduction in the noise level, as a preliminary design goal. For the purpose of comparison, a total cost of $\$ 27$ per square foot is assumed to estimate total barrier cost. This cost figure is based upon current costs experienced by Maryland State Highway Administration and includes the costs of panels, footings, drainage, landscaping, and overhead.

Generally, noise barriers are considered reasonable if the cost per residence is less than $\$ 35,000-\$ 40,000$.

1) Alternate 1 (No-Build)

Under the No-Build Alternate, none of the noise sensitive areas would exceed the noise abatement criteria of $67 \mathrm{dBA}, \mathrm{L}_{\mathrm{eq}}$. Six NSA (6-12) will have projected No-Build noise levels lower than current ambient levels. this can be attributed to fluctuations in traffic volumes and truck percentages that occurred during the monitoring period. These fluctuations could cause a $2-4 \mathrm{dBA}$ difference between existing and No-Build noise levels.
2) Build Alternate 2 (Selected)

Under the Selected Alternate, the FHWA noise abatement criteria would be exceeded at NSAS $1,2,5,6,8,9$, and 12 . Therefore, abatement was considered for these noise sensitive areas.

The following is a discussion regarding the feasibility of abatement for these nine sites:

NSA 1
This noise sensitive area would have a projected 2015 noise level 2 dA above the FHWA noise abatement criteria of 67 dBA . A barrier at this location would not be physically feasible because of barrier segmentation for driveway access to Maryland Route 246. This segmentation of a barrier produces gaps or breaks in the wall and degrades the reduction potential and effectiveness of the barrier.

NSA 2
NSA 2 would have a projected 2015 noise level 3 dEA above the noise abatement criteria of 67 dBA . A barrier 575 feet in length, by 16 feet in height, with a total cost of $\$ 248,4000$ was analyzed. This barrier would provide at least a 5 ABA reduction to two residences with projected levels above 67 dBA , at a cost per residence of $\$ 124,200$. Mitigation at this location would not be reasonable.

## NSA 5

Noise sensitive area 5 (Indian Bridge Apartments) would have a projected design year (2015) noise level 4 dBA above the FHWA Noise Abatement Criteria of 67 dBA. A barrier at this location would not be physically feasible because of barrier segmentation for driveway access to Md Route 246 . This segmentation of a barrier produces gaps or breaks in the wall and degrades the reduction potential and effectiveness of the barrier. This development was constructed after

Maryland Route 246 was built. Lastly, these units are air-conditioned and there would be no interior impact.

NSA's 6 and 8
The projected 2015 noise levels for NSAS 6 and 8 are 4 and 5 aBA above the noise abatement criteria of 67 dBA , respectively. Fronting the mobile homes at NSA 6 is commercial land use. Constructing a noise barrier in front of the commercial land use would obstruct the access to the roadway, thus potentially impacting the business. The mitigation of the areas located behind the commercial property would not be physically feasible, due to the distances and barrier segmentation. NSA 8 is also a residential area with commercial/business land use adjacent to Maryland Route 246. Again, due to parking lot and driveway access, abatement is not physically feasible.

NSA 9
Noise sensitive area 9 would have a projected 2015 noise level 4 ABA above the noise abatement criteria. A barrier at this location would not be physically feasible because of barrier segmentation for driveway access at the mobile home entrance. A 20 -foot noise barrier fronting the mobile homes only yielded a 3aBA reduction at this location.

NSA 12
NSA 12 would have a projected 2015 noise level 1 dEA above the noise abatement criteria of 67 dBA . A noise barrier 930 feet in length by 16 feet in height at a cost of $\$ 401,760$ was analyzed. A total of three residences with projected noise levels of 67 dBA or greater would receive a 5 to 10 dBA reduction. The cost per residence of this barrier would be $\$ 133,920$. This barrier would not be a reasonable mitigation measure.
b. Construction Impacts

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

| Bulldozers and earth movers | Dump and other diesel trucks |
| :--- | :--- |
| Graders | Compressors |

Front end loaders

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

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

## 8. Air Quality Impacts

a. Analysis Objectives, Methodology, and Results

The objective of the air quality analysis is to compare the carbon monoxide (CO) concentrations estimated to result from traffic configurations and volumes of each alternate with the State and National Ambient Air Quality Standards (S/NAAQS). The NAAQS and SAAQS are identical for CO: 35 ppm (parts per million) for the maximum 1-hour period and 9 ppm for the maximum consecutive 8-hour period.

A microscale CO pollution diffusion analysis was conducted using the third generation California Line Source Dispersion Model, CALINE 3. This microscale analysis consisted of projections of 1 -hour and 8 -hour $C O$ concentrations at sensitive receptor sites under worst case meteorological conditions for the NoBuild and the Preferred Alternates for the design year (2015) and the estimated year of completion (1995).

1) Analysis Inputs

A summary of analysis inputs is given below. More detailed information concerning these inputs is contained in the Maryland Route 246 Air Quality Analysis, which is available for review at the Maryland State Highway Administration, 707 North Calvert Street, Baltimore, Maryland 21202.

Background CO Concentrations
In order to calculate the total concentration of $C O$ which occurs at a particular receptor site during worst case meteorological conditions, the background $C O$ concentrations are considered in addition to the levels directly attributed to the facility under consideration. Due to the lack of ambient air monitoring stations in the area, and because the project is in an air quality
attainment area, the background concentrations were assumed. The background concentrations resulting from area-wide emissions from both mobile and stationary sources were assumed to be the following:

|  | $\frac{\text { CO,_ppm }}{}$ |  |
| :--- | :--- | :--- |
|  | $\underline{\text { 1-hour }}$ | 8-hour |
| 1995 | 2.0 | 1.0 |
| 2015 | 2.0 | 1.0 |

## Traffic Data, Emission Factors, and Speeds

The appropriate traffic data was utilized as supplied by the Bureau of Highway Statistics (July, 1987) of the Maryland State Highway Administration.

The composite emission factors used in the analysis were derived from the Environmental Protection Agency (EPA) Mobile Source Environmental Factors, and were calculated using the EPA MOBILE 3 computer program. An ambient air temperature of 20 degrees Fahrenheit was assumed in calculating the emission factors for the 1 -hour analysis and 35 degrees Fahrenheit for the 8 -hour analysis in order to approximate worst case results for each analysis case.

Average vehicle operating speeds used in calculating emission factors were based on the capacity of each roadway link considered, the applicable speed limit, and external influences on speed through the link from immediately adjacent links. Average operating speeds ranged from 10 mph to 55 mph depending upon the roadways and alternate under consideration.

## Meteorological Data

Worst-case meteorological conditions of 1 meter/second for wind speed and atmospheric stability class $F$ were assumed for the l-hour analysis; a combination of 1 meter/second and stability class $F$, and 2 meters/second and stability class D, as appropriate, were used for the 8 -hour calculations.

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

Site selection of sensitive receptors was made on the basis of proximity to the roadway, type of adjacent land use, and changes in traffic patterns on the roadway network. Twelve receptor sites were chosen for this analysis consisting
of eight residences, a church, two schools, and a nursing home. The receptor site locations were verified during study area visits by the analysis team. The receptor sites are listed in Table 3 and shown on the Alternate Mapping.

## 3) Results of Microscale Analysis

The results of the calculations of $C O$ concentrations at each of the sensitive receptor sites for the No-Build and Preferred Alternates are shown on Table 4. The values shown consist of predicted CO concentrations attributable to traffic on various roadway links plus projected background levels. A comparison of the values in Table 4 with the S/NAAQS shows that no violations will occur for the No-Build or Preferred Alternates in 1995 or 2015 for the 1 -hour and 8-hour concentrations of $C O$. The projected $C O$ concentrations vary between alternates depending on receptor locations as a function of the roadway locations and traffic patterns associated with each alternate.

The No-Build Alternate results in the highest $C O$ concentrations in 1995 and 2015 for all receptors. The concentrations remain well below the S/NAAQS for both alternates under consideration.

In conclusion, the No-build Alternate and the Preferred Alternate will not result in violations of the 1-hour or 8-hour S/NAAQS in 1995 or 2015.

## b. Construction Impacts

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

The Maryland Air Management Administration was consulted to determine the adequacy of the specifications in terms of satisfying the requirements of the Regulations Governing the Control of Air Pollution in the State of Maryland. The Maryland Air Management Administration found that the specifications are consistent with the requirements of these regulations. Therefore, during the construction period, all appropriate measures (Code of Maryland Regulations 10.18.06.03D) will be taken to minimize the impact on the air quality of the area. c. Conformity with Regional Air Quality Planning

The project is in an area where the State Implementation Plan (SIP) does not contain any transportation control measures. Therefore, with the exception of

## Air Quality Receptor Sites



TABLE 5
CO Concentrations* at Each Receptor Site, ppm

*Including Background Concentrations.
The S/NAAQS for CO: 1 HR maximum $=35 \mathrm{ppm}$ 8 HR maximum $=9 \mathrm{ppm}$
the construction procedures, the conformity requirements of $23 C F R 770$ do not apply to this project.

## d. Agency Coordination

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

1. Alternates Public Meeting - May 5, 1987

An Alternates Public Meeting was held on May 5, 1987, at Great Mills High School in Great Mills, Maryland. The purpose of the meeting was to present results of the preliminary engineering and environmental studies for the Maryland Route 246 project and to provide the opportunity for public discussion of the study alternates.

Approximately 51 persons attended the meeting, including the following elected officials:

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Delegate John Slade
Joseph Odell, President, St. Mary's County Commissioners
Robert Jarboe, St. Mary's County Commissioner
Rodney Thompson, St. Mary's County Commissioner
William Bailey, St. Mary's County Commissioner
John Lancaster, St. Mary's County Commissioner
```

The majority of persons, including all of the elected officials, who spoke at the microphone supported the need for the project. Two areas of citizen concern were brought out at the meeting:
$0 \quad$ Sidewalks along the improved Maryland Route 246 for pedestrian and bicycle traffic were requested both by citizens and by the St. Mary's County Commissioners.

0 Plans to accommodate future traffic increases should be incorporated into the project now (for example, acceleration/deceleration lanes).
2. Combined Location/Design Public Hearing - March 2, 1988

A Combined Location/Design Public Hearing was held on March 2, 1988, at the Great Mills High School in Great Mills, Maryland. The purpose of the hearing was to summarize the engineering and environmental analyses and to receive comments on the project. Approximately 110 persons attended the hearing and one individual made statements following the presentation by State Highway Administration personnel. Two alternates were presented - a Preferred Build Alternate (Alternate 2) and a No-Build Alternate (Alternate 1).

All the testimony and written comments supported the Preferred Build Alternate.

The sole citizen speaker at the hearing, Ms. Joanne Andrews, representing the development firm of Harkins Associates, supported the planned improvements for Maryland Route 237, which will connect to the County's proposed extension of Peggs Road. She also requested that an entrance road be provided from the improved Maryland Route 246 onto the commercial property owned by Harking Associates.

The Board of St. Mary's County Commissioners submitted written comments favoring Option 3 for the Maryland Route $246 / 237$ intersection, in order to avoid conflict between the most northerly entrance to Great Mills High School and Maryland Route 237.

Written comments submitted by the Bay District Volunteer Fire Department supported Option 1 for the Maryland Route $246 / 5$ intersection, due to the fact that Option 2 would deny emergency vehicles direct access to Great Mills Road (Maryland Route 246). The fire department also favored Option 1 for the Maryland Route 246/237 intersection.

The Besche $0 i 1$ Company, in a letter submitted to SHA, voiced its strong objection to Option 3 for the Maryland Route $246 / 237$ intersection, indicating that this option would have a negative impact on the operation of a convenience store owned by Besche and located at this intersection. The company prefers Option 1 for this intersection.

A complete transcript of the hearing is available at the State Highway Administration, Project Development Division, 707 North Calvert Street, Baltimore, Maryland 21202.

## 3. Positions Taken

a. Elected Officials

Delegate John Slide and all of the St. Mary's County Commissioners have indicated a preference for Alternate 2.

## b. Citizen Associations

No representatives from a community association have indicated a preference for a particular build alternate. The majority of individual citizens indicated a preference for Alternate 2.
c. Agencies

Federal and state agency comments are provided in Section $V$, Correspondence.
G. Recommendation

The unanimous recommendation of the Project Planning team is that Alternate 2 be processed for location and design approvals and be further documented as the Selected Alternate in a Finding of No Significant Impact for the following
o Alternate 2 will provide increased capacity, reduce congestion and vehicular accident rates/costs, and improve overall traffic operations in the study area.

0
Alternate 2 will improve access to employment and commercial centers and reduce emergency service response time throughout the Maryland Route 246 corridor.

- Alternate 2 would accommodate the expected growth and commercial/residential expansion of the study area, and have a positive impact on the County's tax base and tax revenues.

Option 3 is recommended for the Maryland Route $246 / 237$ intersection. This option offers the best routing for the area traffic to avoid conflicts with traffic utilizing the Great Mills High School entrance. Also, this option results in no wetland impacts.

Option 1 is recommended for the Maryland Route $246 / 5$ intersection. This option provides the most efficient traffic patterns for this intersection and results in a minimization of impacts to the St. Mary's River floodplain. This option also allows emergency vehicles from the Bay District Volunteer Fire Company emergency access to Maryland Route 246.

PUBLIC HEARING COMMENTS

## IV. PUBLIC HEARING COMMENTS

A Combined Location/Design Public Hearing for the Maryland Route 246 project was held on March 2, 1988, at 7:30 pom. at the Great Mills High School in Great Mills, Maryland. The purpose of this hearing was to present the results of the engineering and environmental studies, and to receive public comments on the project. Approximately 110 persons attended the hearing and one individual made a statement following the presentation by State Highway Administration personnel.

A No-Build Alternate (Alternate l) and a Preferred Build Alternate (Alternate 2) were presented. Alternate 2 proposes widening Maryland Route 246 to a fivelane curbed section along the existing horizontal and vertical alignments, and is the Preferred Alternate for construction. Improvements to Maryland Route 237 from Maryland Route 246 to the County's proposed extension of Pegs Road are included in Alternate 2. There are three options for the intersection of Maryland Route 246 at Maryland Route 237 (Chancellor's Run Road) and two options for the intersection of Maryland Route 246 and Maryland Route 5.

The following is a summary of the statements made at the hearing. 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 subsequent to the Public Hearing are discussed in the Correspondence section of this document.

1. Joanne Andrews, representing Harking Associates (developers that own a 55-acre parcel of ground at the corner of Chancellors Run Road and Great Mills Road).

Comment:
She stated for the public record that Harking Associates supports the planned improvement for Great Mills Road, going up to Chancellors Run Road, to the intersection with the new legs Road.

The land owned by Harking Associates along Great Mills Road is zoned commercial and they would like to maintain access from Great Mills Road (Maryland Route 246 ) by way of an entrance from Great Mills Road into the commercial property. If the Harking Associates property will be impacted by any of the options under Alternate 2 , they would like to have their $C-2$ ground remain unchanged.

## SHA Response:

An entrance road from Great Mills Road onto the Harkins Associates commercial property could be constructed, providing that the location of the entrance road conforms to SHA's intersection spacing requirements.

CORRESPONDENCE

841 Chestnut Bulling

MAR 221988

Ms. Cynthia D. Simpson, Chief
Environmental Management
Project Development Division (Room 310)
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202
Re: MD Rt. 246 from MD. Rt. 5 to west of Saratoga Drive St. Mary's County (88-03-478)

Dear Ms. Simpson:
In accordance with the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, EPA has reviewed the Draft Air Quality Analysis for the above referenced project. We are satisfied with the approach for analyzing the air quality impacts of the project and offer no objections to this project on the basis of air quality impacts.

Thank you for including EPA in the early coordination of this report. Should you have any questions, or if we can be of further assistance, please contact Lynn F. Rothman 215/597-7336.

Sincerely,


# DEPARTMENT OF THE ENVIRONMENt 4 A 28 201 WEST PRESTON STREET - BALTIMORE, MARYLAND 21201 AREA CODE 301 - 225.5275 

William Donald Schaefer<br>Governor

Martin W. Walsh, Jr.
Secretary

March 24. 1988

Ms. Cynthia D. Simpson, Chief
Environmental Management
Project Development Manager, Room 310
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202
RE: Contract No. SM 751-101-571
Maryland Route 246 from
Maryland Route 5 to West of Saratoga Drive
St. Mary's County, Maryland
PDMS No. 183049

Dear Ms. Simpson:
We have reviewed the Draft Air Quality Analysis for the above subject and have found that it is consistent with the Administration's plans and objectives.

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


Mario E. Jorquera, Chief Division of Planning and Data Systems Air Management Administration

MEJ: abs

# Federal Emergency Management Agency 

Region III
Liberty Square Building (Second Floor)
j05 South Seventh Street
Philadelphia, PA 19106

February 10, 1988

Louis H. Eoe
State Highway Administration
Tot North Calvert Street
Room 310
Baltimore. Md. 21202
Dear Mr. Eoe:

Thank fou for the opportunity to comment on the Environmental Assessment for Contract \# SM $751-101-571$. Maryland Rt. 246. Our primary interest is the impact on flood elevations in the impacted communities. Executive Order $\# 1988$ specifies that the project must comply with the local flood plain regulations. All communities that participate in the National Flood Insurance Program require, at a minimum, that there be no rise (0.00 feet) in the floodway elevation as a result of a floodplain action.

This E.A. does not discuss other than general terms the impact to the floodplain. The term "insignificant impact" does not, in our estimation. adequately address the impact to the 100 rear floodplain. If a project is to encroach in the floodway then the local requirements specify no rise.

In our estimation it is important to address in a E.A. whether t. he community has an effective Flood Insurance Study; whether the encroachment falls within the floodway or floodway fringe; and specifically what is required by the local regulations. It is not unusual for a community to regulate the floodplain at a more restrictive level than the FEMA minimum requirements.

We have coordinated previously with the State Highway Administrations, hydraulic engineers office and the exact review procedures should be available through that office. If you have any questions call me at 215/9:31-5і56.


SHA Response:
A floodplain study will be included as part of the hydraulic/hydrologic studies to be conducted during the project's final design phase.


## BOARD OF <br> ST. MARY'S COUNTY COMMISSIONERS <br> POO BOX 653 - GOVERNMENTAL CENTER • LEONARDTOWN MARYLAND 20650

March 15, i gee

Mr. Hal Kassoff, Administrator
Maryiand State Highway Administration
707 N. Calvert Street
Beitimore, ND 21202
RE: Maryland Route 246

Dear Mr. Kassonf:
The Board of County Commissioners, in their meeting of Tuesday, March 8, 1988 , discussed the Location/Design Public Hearing that was held for Maryland Route 246, with the Director of Public Works, Mr. John E. Norris, Jr., P.E. St. Mary's County has, in the past, addressed concerns raised by our Board of Education about the close proximity of Maryland Route 237 and the most northerly entrance to Great Mills High School. It is a current practice for the Board of Education to deny access to that entrance because of the conflicting turning movements of the students and teachers, with the traffic queued to make a left turn from Great Mills Road onto Chancellor's Run Road. If the intersection of Maryland Route 237 and Maryland Route 246 was moved further from the School's entrance, this conflict would not exist.

It is, therefore, the recommendation of the Board of County Commissioners that the Maryland State Highway Administration select Option Three (3) of Alternate Two (2), with respect to the above-referenced intersection.

If you have any questions, please feel free to contact Mr. John B. Norris, Jr., P.E., Director of Public Works.

Sincerely,

BCC: JBN:mj
cc: Senator C. Bernard Fowler
Delegate J. Ernest Bell, II
Delegate Thomas A. Rymer
Delegate John F. Slade, III
Dr. Leary Horton

Mantand Departinent of Transporition

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State Highway Administiation
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F.C. Eこう: 巨こう
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``` Route 246 project．
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``` decision is reached．It is anticipaさed trat a decision will be reミニi．ed＝egeraing tie proposea design of this project euring fie sprinc of chis year．
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Should you have any questions or áaiticnal commeris．piease feel Eree to contact me or Mr．Neii Federser．，Director，Ofíice of Eianming and Freliminary Encimeering．Mr．Pecievser s teiepione nunder is（301）333－1110．

> sincere:y.

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## V－5

My telephone number ：s 1301
Telety＝ewriter for impaires Hearing or Sceern

STATE HIGHWAY ADMINISTRATION QUESTIONS ANDIOR COMMENTS

Contract No. SM 751-101-571
PDMS No. 183049
Combined Location/Design Public Hearing
Maryland Route 246
Maryland Route 5 to Saratoga Drive
Great Mills High School
Wednesday, March 2, 1988-7:30 pom.
name Charles 1H. Donaldson
DATE $\qquad$ $3 / 16 / 88$

PLEASE
PRINT
ADDRESS_ WO WOODLAWN. OR
CITY/TOWN $\qquad$ California STATE $\qquad$ $m \Omega$ ZIP CODE _20619

I/ We wish to comment or inquire about the following aspects of this project:
THE BAY DISTRICT VOLUNTEER FIRE DEPARTMENT, 24 CORAL DR SOUTH LExingTon Parl, mo 20019 wishes to 60 on record as SUPPORTING ALTERNATE 2 , ALTERNATE 2 OPTION I EOR TIE WTERSECTION OF Rr $5 \xi \operatorname{Rr} 246$ - The other option (option 2) would deny emergency vehicles direct access to GREAT milk nd.

We also support UPTION1 ALTERNATE 2 FOR TIE DESIGN of TTE INTERSECTION of R 246 \& Rr 237.
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$\qquad$
Please add my lour names) to the Mailing List.*
Please delete my lour name (s) from the Mailing List.
*Persons who have received a copy of this brochure through the mail are already on the project Mailing List.

March 29. 1988
RE: Contract No. SM 751-101-571
Maryland Route 246
Maryland Route 5 to Saratoga Drive PDMS No. 183049

Mr. Charles H. Donaldson
110 Woodlawn Drive
California, Maryland 20619
Da ar Mr. Donaldson:
Thank you for your recent letter supporting the Maryland Route 245 project. Your preference for Option 1 for the Maryland Route 5/Maryland Route 245 intersection and for the Maryland Route 237 /Maryland Route 246 intersection will be considered by the project planning team before a decision is reached as to the proposed design for these intersections.

Should you have any further questions or comments, please feel free to contact me or Mr. Douglas Simmons, the Project Manager. Mr. Simmons's telephone number is (301) 333-1190 or 1-800-539-5119.

```
Very truly yours,
Louis H. Age, Jr. Deputy Director Project Development Division
```



LHE:DS:ds

V-7
My telephone number is (301) 333-1190
Teletypewriter for Impaired Hearing or Speech 383-7555 Baltimore Metro - 565-0451 D.C. Metro - 1-800-492-5062 Statewide Tall Free 707 North Calvert St., BaltImore, Maryland 21203-0717
P.O. Box 277

Waldorf, Maryland 20601
645-7061
884-5231

March 17, 1988

Mr. Pedersen
State Highway Administration
Office of Planning \&
Preliminary Engineering
P. O. Box 717

Baltimore, Maryland 21203
Re: State Contract No. SM 751-101-571N PDMS No. 183049
Maryland Route 246 and Maryland Route 237
Dear Mr. Pedersen:
Please be advised of our strong objection to Option 3 which requires a relocation of the intersection of Routes 246 and 237.

We have owned the property at the subject intersection for many years and currently operate the Luik Shop, a convenience store with gasoline.

Approximately one year ago, Dash In opened a similar operation directly across Route 237 on the opposite corner. Although our sales were seriously impacted, we were able to hold on and still provide a service to the residents of the community.

However, if Option 3 is selected, Route 237 will be closed off to literally thousands of cars which presently have controlled, safe access to our services. The negative impact on our sales would be disastrous and, probably fatal.

The elimination of the traffic control currently situated at the intersection will create an extremely difficult, if not hazardous condition for the eastbound Route 246 residents trying to make a left turn across the heavy westbound traffic to get to their homes. The westbound traffic will have 470 feet in which to gain speed and further exacerbate the danger of the attempted cross-over race.

## V-8

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Mr. Pedersen -2- March 17, 1988
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Option 3 requires a relocation of a mobile home and the displacement of an elderly, minority, handicapped individual, Option 1 and 2 do not.

In a pre-hearing discussion with Doug Simmons, the project manager, he indicated preference for Option 3 strictly from an engineering standpoint. He said it provided a good, squared-off "T" intersection. Unless I am overlooking something, the same results are accomplished in Option 1 without any relocation, displacement or disruption of business. In the entire limit area of the study, there are 22 heavy black lined accesses to Route 246. Of these 22, there are 12 at angles of something other than 90 degrees, yet only the subject intersection is being considered for relocation.

To reiterate our position, if the single criterion for moving the intersection is to square off the angle, we strongly urge you to accomplish this by implementation of Option 1.

Your attention and consideration to this matter will be greatly appreciated.

Very truly yours,
BESCHE OIL COMPANY, INC.


Ed Zimmerman
Real Estate Manager

EZ: rms

Maryland Department of Transportation
State Highway Administration

Mr. Ed Zimmerman
Besche Oil Company
POO. BOX 277
Waldorf, Maryland 20601
Dear Mr. Zimmerman:

Thank you for your recent letter stating your opposition to Option 3 for the proposed reconstruction of the Maryland Route $245 /$ Maryland Route 237 intersection.

Option 3 was developed for several reasons. Relocating the connection of Maryland Route 237 and 246 would allow for the construction of a 90 degree intersection angle. In addition, sight distance for vehicles on Maryland Route 237 would be increased. Option 3 would also remove traffic conflicts between vehicles which are traveling between Maryland Route 237 and Great Mills High School.

It is anticipated that a decision will be reached on the proposed alignment of the Maryland Route 246 project later this spring. Your position will be considered in reaching this decision.

Should you have any further questions or suggestions, please feel free to contact me.

Very truly yours,


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

NJP:Cs
cc: Mr. Louis H. Ese, Jr.

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

CONSTANCE LIEDER secretary
February 10, 1988

Mr. Neil J. Pedersen Director, Office of Planning and Preliminary Engineering State Highway Administration 707 iv. Calvert Street
Salto., Md. 21203-0717
State Application Identifier: MD880208-0083
State Clearinghouse Contact: Samuel Baker
RE: Environmental Assessment - Md. Rte. 246 From Md. Rte. 5 to West of Saratoga Dr. SM-751-101-571
Dear Mr. Pedersen:

This is to acknowledge receipt of the referenced subject. We are providing notice of the subject to State and local public officials via the Intergovernmental Monitor for their information.

Please be assured that all intergovernmental review requirements have been met in accordance with the Maryland Intergovernmental Review and Coordination Process (COMAR 16.02.03).

Guy W. Hazer,
Maryland State Clearinghouse
for Intergovernmental Assistance

GWH/SB:scl

Soil
Conservation Service

4321 Hartwick Road
Room 522
College Park, MD 20740-3291

Mr. Louis H. Edge, Jr. Deputy Director Project Development Division, Room 310 State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202
Dear Mr. Age:
The Soil Conservation Service has no comments to make concerning environmental assessment for the improvement of Maryland Route 246 from Maryland Route 5 to west of Saratoga Drive, St. Mary's County (Contract No. SM 751-101-571).

Thank you for the opportunity to review and provide comments on this proposed construction activity.


Torrey C. Brown, M.D. Secretary

Catherine P. Stevenson
Director

July 13, 1988

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Mr. Louis H. Ege, Jr.
Deputy Director
Project Development Division
State Highway Administration
7 0 7 \text { North Calvert Street}
Baltimore, MD 21202
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Re: WRA No. 88-PP-0661
SHA N. SM-751-101-571
MD Rt. 246 fro MD Rt. 5 to West
of Saratoga Drive
Environmental Assessment

Dear Mr. Ege:

The Water Resources Administration and other interested agencies of the Department of Natural Resources have made necessary review of the above referenced Environmental Assessment document. Accordingly, it has been determined that the following comments andor recommendations must be taken into consideration in developing additional environmental study(ies) or in the design of said project.

1. The environmental assessment had determined that the St. Mary's River 100-year floodplain inundates the MD Rt. 5/246 intersection based on FEMA Flood Insurance Rate Maps and that the construction of the preferred alternate will have insiginficant impact. However, the SHA needs to confirm the insignificant impact of the project upon the 100-year floodplain limits using more detailed and up-to-date studies with consideration of ultimate development assuming existing zoning available from other SHA's project(s). Necessary permit(s) for any changes to the course, current, or cross-section of St. Mary's River, Jarboesville Run, Hilton Run and other tributaries' stream channel and/or their 100-year floodplain limits must be obtained from this office (COMAR 08.05 .03 .01 to 08.05 .03 .13 ). Some of the stream crossings or alteration to the 100 -year floodplain may be exempt from the requirements of a waterway construction permit(s) from the Administration (COMAR 08.05.03).

Mr. Louis H. Eger, Jr.
July 13, 1988
Page Two
2. The Non-Tidal Wetlands Division of the Water Resources Administration has offered the following comments:
a. Figure Ba Stormwater ponds should be located out of wetlands, if possible. Upland areas may be available north of MD Rt. 246.
b. Figure 3d Upland areas south of $M D$ Rt. 246 should be used for stormwater management, is possible.

If you should have any questions regarding this matter, please contact me at (301) 974-2265.

M. Q. Taherian

Project Engineer
Waterway Permits Division
MQT:das

## SHA Response:

1. A floodplain study will be included as part of the hydraulic/hydrologic studies to be conducted during the project's final design phase. No changes to the course, current or cross-section of St. Mary's River, Jarboesville Run, Hilton Run, and other tributaries/stream channels will be made.

2, Stormwater management will also be addressed during this project's final design phase and coordinated with the Department of the Environment.


# Maryland Geological Survey 

2300 St. Paul Street
Baltimore, Maryland 21218
Telephone: (301) 554-5500

William Donald Schaefer
Governor

Division of Archeology
(301) 554-5530

28 July 1988

Mr. Louis H. Ege, Jr.
Deputy Director
Division of Project Development
State Highway Administration
P.O. Box 717/707 North Calvert Street

Baltimore, Maryland 21203-0717

RE: Phase I Archeological Survey of Maryland Route 246 from Maryland Route 5 to west of Saratoga Drive, St. Mary's County, Maryland
Contract \#: SM 751-101-571

Torrey C. Brown, M.D. Secretary
Kenneth N. Weaver Director
Emery T. Cleaves Deputy Director


Dear Mr. Ege:

At the request of the State Highway Administration, the Division of Archeology conducted a Phase I archeological survey of Maryland Route 246 from Maryland Route 5 to west of Saratoga Drive (Contract No. SM 751-101-571, Figure 1). Along this 3.8 km (2.3 mi.) length of Maryland Route 246 , the project right-of-way (which was not staked) covered a narrow area ( 16 m or 52 ft . maximum) on both sides of the existing highway. Fieldwork was conducted between 23 and 25 February 1988, directed by Maryland Geological survey archeologist William Huser, Jr. under the supervision of Richard Ervin, Principal Investigator. Field assistants were Allison Coerper, Spencer Geasey, Alison Helms, and Ronald Orr. Richard Ervin visited the project area on 24 February 1988.

The project area is within the Western Shore division of the Coastal Plain Province. The south end of the project is on the floodplain of the St. Mary's River. The remainder is on uplands between Hillton Run and Jarboesville Run, both of which flow south to join the St. Mary's River. Soils in the project area include moderately well to well drained Alluvial land, moderately well drained Beltsville silt loam
with a fragipan, well drained Caroline silt loam with clay loam subsoil, highly disturbed cut and fill land, excessively drained Evesboro loamy sand, poorly drained Athello silt loam, and wet drained Sassafras-Chillum complex soils (Gibson, 1978:11-40).

Archeological sites have been recorded within 2.5 km of the project area. Two mixed prehistoric and historic artifact scatters (18STX-1 and X-2) are located on a flat overlooking a tributary of Jarboesville Run. A burned twentieth century frame house (18ST83) was recorded on a hilltop in Jonestown. The remaining sites are along the St. Mary's River, including an eighteenth and nineteenth century grist and sawmill complex (18ST259), a mixed prehistoric and historic artifact scatter (18ST289), two shell middens of unknown age (18ST303 and 304), and an historic landing (Site ll) not precisely located.

Moderate to intensive residential and commercial development has occurred along Maryland Route 246 within the project area. However, four relatively undisturbed parcels (Parcels 2, 3, 4, and 6) were identified as having high probability for prehistoric sites, being well drained and within 50 m of water. Also, two locations (Parcels 1 and 5) were identified as having medium probability for prehistoric sites, being well drained but greater than 50 m from water. Normally, a sample of low probability areas (areas under $15 \%$ slope not meeting the criteria of high or medium probability areas) is field checked to test the validity of the predictive model. However, because the only undisturbed low probability areas were too small and discontinuous to provide meaningful results, none were tested.

Because low visibility prevented surface examination, shovel test pits were employed to test each area. Shovel test pits 50 cm in diameter were placed 20 m apart in high-probability areas and 30 m apart in medium-probability areas. These test pits were excavated to the bottom of plowzone or to clay subsoil indicative of Pleistocene age development. All matrix was screened through 1/4-inch mesh hardware cloth and all recovered artifacts were bagged for examination in the laboratory. Each of the six parcels was tested by single transect of shovel test pits.

## RESULTS

A total of 42 shovel test pits were excavated in the six parcels. Only Parcels 1, 4, and 6 contained prehistoric archeological resources. A flaked stone site (18ST573) was found in Parcel 1 on the grounds of Charles County Community College at St. Mary's County (Figure 2). The site measures at least 115 m by 35 m . Four shovel test pits spaced 30 m apart and three additional tests yielded an Early to Middle Woodland Rossville quartz projectile point, two quartz flakes, one quartzite flake, two quartz possible flakes, three quartz chunks, and seven cobble fragments that may be fire cracked rock. Although these artifacts were recovered from undisturbed upper soil layers, two to three came from undisturbed buried strata. However, no
concentrations of artifacts or features were found. Three shovel test pits placed southwest of the site yielded no prehistoric material.

Small quantities of 20 th century material were present in Parcels 1 , 2, 3, 4, and 6. Parcels 1, 4, and 6 also contained small quantities of 19 th century material. Much of the historic material from Parcels 1 and 6 was recovered from layers of fill which may pertain to extant structures on the properties.

In Parcel 4, one rhyolite flake was recovered from one of six shovel test pits. No $x$-number was assigned because the area was disturbed. A single quartz flake and an undecorated black lead-glazed historic sherd (18STX26) were recovered from one of five shovel test pits in Parcel 4. A single shale possible flake (18STX25) was also found in a shovel test pit in Parcel 4.

## INTERPRETATIONS AND RECOMMENDATIONS

The low density quantity of materials recovered from 18ST573, even with undisturbed portions of the site, combined with the absence of subsurface features, suggests short-term or intermittent occupation of the site. Such remains are unlikely to yield important information about prehistory. Futhermore, evidence indicates the site has been disturbed by construction. 18ST573 is not considered eligible for nomination to the National Register, because it lacks integrity and is unlikely to yield important information about prehistory. No further archeological work is recommended.

The single quartz flake in Parcel 4 and single rhyolite flake in Parcel 6 are interpreted as isolated finds that represent intermittent activities, so they are not likely to yield important information. As they are not considered potentially eligible, no further archeological work is recommended. Scattered nineteenth and twentieth century historic artifacts probably represent field scatter and are not likely to yield important information. They are not considered eligible for nomination to the National Register and no further archeological work is recommended.

## Sincerely,



Richard Ervin
Archeologist
RE: cab
Enclosure
cc: Cynthia Simpson

## REFERENCES

Gibson, Joseph W. 1978 Soil Survey of St. Mary's County, Maryland. United States Department of Agriculture Soil Conservation Service.

GREENHORNE \& O'MARA. INC.

## MEMORANDUM

TO: Cynthia Simpson, Maryland State Highway Administration
FROM: Cathy Fairbairn


DATE: September 29, 1987
SUBJ: MD 246 Wetlands Field Review

The following persons met at the Roy Rogers restaurant on Maryland 246 for the Corps field review, which began at approximately 9:30 arm. on the above date:

Name<br>Cathy Fairbairn Willy Accame Tom Hegemier Tom Wilkins Mary Dircks Marcia Smith Peter Knight

Affiliation
Phone No,

| Affiliation | Phone No. |
| :--- | :--- |
| Greenhorne \& O'Mara, Inc. | $982-2800$ |
| Greenhorne \& O'Mara, Inc. | $982-2800$ |
| Greenhorns \& O'Mara, Inc. | $982-2800$ |
| Greenhorne \& O'Mara, Inc. | $982-2800$ |
| U.S. Army Corps of Engineers | $962-3477$ |
| State Highway Administration | $333-1184$ |
| U.S. Fish \& Wildlife Service | $269-5448$ |

Cathy Fairbairn distributed maps and tables depicting the impacted wetlands along the proposed Maryland Route 246 right-of-way. She then briefly explained the methodology that had been utilized to delineate the wetlands. 1987 black and white aerial photographs were interpreted stereoscopically to identify potential wetland areas. NWI maps, the county soil survey, and FEMA flood insurance maps were examined prior to the site reconnaissance. Wetland boundaries were subsequently determined in the field and then flagged. At each site, soil samples were taken with a soil probe, and examined for the presence of hydric soils. Vegetation and hydrologic indicators were also identified. The wetlands were classified according to the Cowardin System (1976) and a table of the wetlands impacted and their characteristics was compiled along with maps of the wetland areas prior to the field review.

Most of the wetland sites were visited: Nos. $12,10,9,8,7,6,5,3$, 2, and 1. Wetland sites 11 and 4 were not visited because they were outside the right-of-way. The Corps and the Fish and Wildlife Service concurred with the wetland boundary delineations. A good portion of wetland No. 9 was defoliated. Also, there existed a significant amount of fill in the vicinity of wetland site 1 that was not present in April, the time when those wetlands were flagged. The only significant agency comment was from Mary Dircks, who requested that SHA keep out of the wetlands at wetland site No. 1, especially at the intersection of Maryland Route 246 with Maryland Route 5 .

GREENHORNE \& O'MARA. INC.

Attached is a copy of the wetlands map and table with acreages tabulated. Please forward a copy of these documents along with these meeting minutes to the Corps and the U.S. Fish \& Wildlife Service as the acreages were omitted in an earlier version of the table. Thank you.

```
cc: Doug Simmons
    State Highway Administration
```

| Wetland Number | Site <br> Description | Hetlands <br> Approximate Acreage Impacted | $\text { TABLE } 8$ <br> - Maryland Route 246 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Domina | getation |
|  |  |  | Classification | Common Name | Scientific Name |
| 1 | Located in Great Mills south and west of the MD 246/5 intersection | 0.80 | PFO1A/C | River birch Sweet gum | Betula nigra Liquidambar stgraciflua |
|  |  |  |  | Red maple | Acer rubrum |
|  |  |  |  | Sycamore | Platanus occidentalis |
|  |  |  |  | Loblolly pine | Pinus taeda |
|  |  |  |  | Smooth alder | Alnus serrulata |
|  |  |  |  | Spice bush | Lindera benzoin |
|  |  |  |  | Royal fern | Osmunda regalis |
|  |  |  |  | Sensitive fern | Qnoclea sensibilis |
|  |  |  |  | Cinnamon fern | Osmunda cinnamomea |
|  |  |  |  | Stinging nettle | Urtica dioica |
|  |  |  |  | Virginia chainfern | Moodmardia virginica |
| 2 | Located immediately east of Charles County Community College, north side of MD 246 | 0.08 | PEMIE |  |  |
|  |  |  |  | Chair-maker's rush Jewelweed | Carex sp. <br> Impatiens capensis |
|  |  |  |  | Joe-Pye weed | Eupatorium spp. |
|  |  |  |  | Sensitive fern | 0noclea sensibilis |
| 3* | Located north and west of the intersection with Chancellor's Run Road | N/A | R4UB3/2 | Sweetgum | Liquidambar styraciflua |
|  |  |  |  | Red maple | Acer rubrum |
|  |  |  |  | Sycamore | Platanus occidentalis |
|  |  |  |  | Musclewood | Carpinus caroliniana |
|  |  |  |  | Sassafras | Sassafras albidum |
|  |  |  |  | Poison ivy | Toxicodendron |

* Not in right-of-way

TABLE 8
Yet:lands - Maryland_Route_246

|  |  | Approximate |  | Domi | getation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Wetland <br> Number | Site <br> Description | Acreage Impacted | Classification | Common Name | Scientific Name |
| 4* | North side of MD 246, west of self storage | N/A | Prola | Sweet gum | Liqiudambar styraciflua |
|  |  |  |  | Loblolly pine | Pinus taeda |
|  |  |  |  | Red maple | Acer rubrum |
|  |  |  |  | Arrowwood | Yiburnum dentatum |
|  |  |  |  | Virginia creeper | quinquefolia |
| 5 | ```South side of MD 246, south of wetland site no. 4``` | 0.02 | PF01A | Sweet gum | Liquidambar styraciflua |
|  |  |  |  | Black willow | Salix nigra |
|  |  |  |  | Red maple | Acer rubrum |
|  |  |  |  | River birch | Betula nigra |
| 6 | On both north and south sides of MD 246, east of Lexwood Drive | 0.48 | PFO1A | Red maple | Acer rubrum |
|  |  |  |  | Sweet gum | Liquidambar styraciflua |
|  |  |  |  | Loblolly pine | Rinus taeda |
|  |  |  |  | Poison ivy | Toxicodendron radicans. |
|  |  |  |  | Virginia creeper | Parthenocissus quinquefolia |
|  |  |  |  | Greenbrier | Smilax sp. |
|  |  |  |  | Sensitive fern | Onoclea sensibilis |
|  |  |  |  | Jewelweed | Impatiens capensis |
|  |  |  |  | Arrowwood | Viburnum dentstum |
|  |  |  |  | Black gum | Nyssa sylvatica |

* Not in right-of-way

TABLE 8
Wetlands - Maryland Route 246



* Not in right-of-way


# Attachment for Environmental Impact Documents <br> Revised: February 1, 1988 <br> 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 amendments as published in CFR Vol. 51, No. 39 on February 27,1986 ) 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 ${ }^{\prime \prime}$ 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 Acquisicion Policies Act of 1970" requires that the State Highway Administration shall not proceed with any phase of any project which will cause the relocation of any 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]:    *Selected Option for construction.
    **Included in Selected Alternate 2.
    ***One trailer will be relocated under Alternate 2.
    One trailer will be relocated with Option 3 of
    the MD 246/237 intersection improvement.

[^1]:    *Selected Option for construction.
    **Included in Selected Alternate 2.

