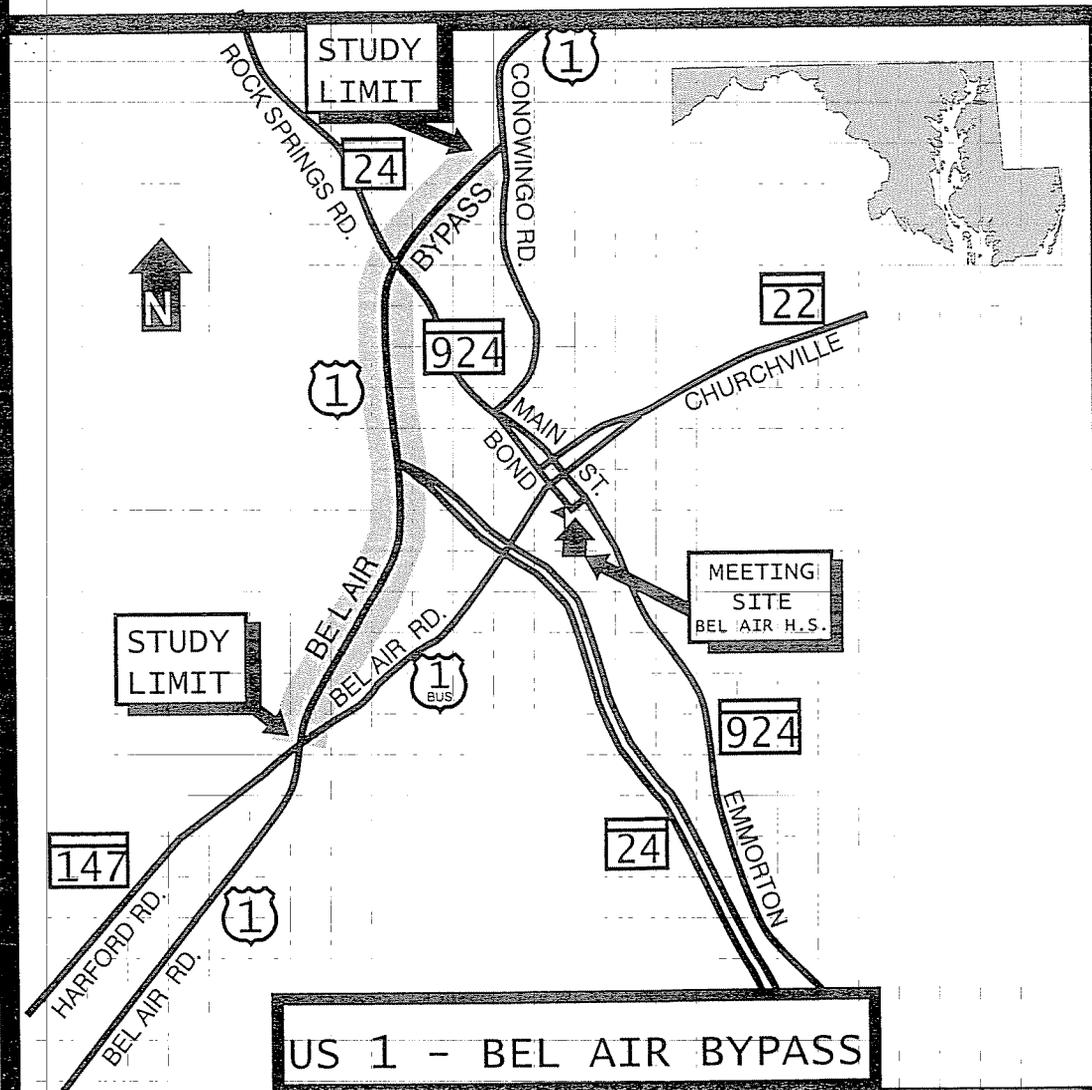


FINDING OF NO SIGNIFICANT IMPACT

US ROUTE 1 - BEL AIR BYPASS
from MD 147 to North of MD 24/924

Harford County, Maryland



US 1 - BEL AIR BYPASS

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

and
MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

REPORT NUMBER: FHWA-MD-EA-99-01-F
Federal Highway Administration
Maryland Division

US 1 – Bel Air Bypass

From MD 147 to north of MD 24/MD 924
Harford County, Maryland

ADMINISTRATIVE ACTION

FINDING OF NO SIGNIFICANT IMPACT

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

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

The Federal Highway Administration (FHWA) has determined that the State Highway Administration (SHA) Selected Alternative 4B Modified, will have no significant impact upon the environment. Alternative 4B Modified proposes dualization of US 1 from south of Winters Run to north of MD 24/ MD 924 with the existing roadway section becoming the southbound lanes of the dual highway. Four lanes (two lanes in each direction) are proposed from south of winters Run to MD 24, and north of the MD 24/ MD 924 interchange to the northern end of the project, and, between MD 24 and MD 24/ MD 924 six lanes are proposed (three lanes in each direction) with bifurcation to further minimize impacts to wetlands and with full control of access. A trumpet interchange that eliminates the existing at-grade intersection at MD 24 and US 1 is proposed and, at the US 1/ MD 24/ MD 924 interchange, a double lane loop ramp for the northbound US 1 to northbound MD 24 traffic, as well as some improvements along the MD 24/ MD 924 mainline in the vicinity of the interchange, and a new layout for the existing park'n ride facility that separates pedestrian traffic and from the bus turn-around path are proposed.

The SHA Selected Alternative will impact approximately 2 acres of nontidal wetlands, 16.3 acres of woodlands, 1.5 acres of 100-year floodplain, and will require 18 stream crossings, impacting 1540 linear feet of stream channel.

This Finding of No Significant Impact has been independently evaluated by the FHWA and determined to adequately and accurately discuss the need, environmental issues, impacts of the proposed action, and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. The FHWA takes full responsibility for the accuracy, scope and content of the Environmental Assessment and attached documentation.

3/14/01
Date

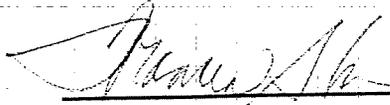

Federal Highway Administration
Division Administrator

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**1.0 Record of
Decision**

1.0 RECORD OF DECISION

The State Highway Administrator, upon review of all of the Build Alternates retained for Detailed Study and the Planning Team's recommendation at the Administrator Project Review and Alternative Selection meeting held on Tuesday, February 15, 2000, has selected Alternate 4 and Option B to be recommended for Location/Design Approvals. The Administrator further directed that a 22-foot bifurcated median be used in the vicinity of Heavenly Waters Run to further reduce wetland impacts associated with this project.

Although Option B at the MD 24/MD 924 interchange would result in greater impact to the stream running adjacent to the existing Park-and-Ride facility than Option A, the safety benefits associated with the separation of pedestrian traffic and a bus turn-around path was the determining factor in choosing Option B.

The Administrator, has also selected landscape Concept 1 to be implemented prior to the construction for the Bel Air Bypass to provide visual buffering where no noise walls are warranted and enhancement of the area through the use of native materials that add color and interest to the nearby properties as well as vehicles traveling along the Bel Air Bypass.

Due to the incompatibility with the MA and PA Heritage Trail's equestrian use and the limited number of commuter cyclists along the Bel Air Bypass, the Administrator has directed that cyclists continue use of the shoulders with special provisions for signing and ramp crossing options to be developed during the Final Design Phase of the project.

The Administrator further directed that fencing be implemented in accordance with the controlled access facility criteria to accommodate traveler safety, residents adjacent to the Bel Air Bypass, and to ensure wildlife migration.

2.0 Summary Comparison of Alternates

2.0 SUMMARY COMPARISON OF ALTERNATES

**TABLE 1
SUMMARY COMPARISON OF IMPACTS**

	Alt 1 No- Build	Alt 3A	Alt 3B	Alt 4A	Alt 4B	Alt 5A	Alt 5B	Alt 4B modified SHA-Selected Alternative
Residential/ Commercial	0	0	0	0	0	0	0	0
Affected Properties	0	9	9	9	9	9	9	9
Relocations	0	0	0	0	0	0	0	0
Right-of-Way required – acs.	0	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Historic Sites	0	0	0	0	0	0	0	0
Archaeological Sites	0	0	0	0	0	0	0	0
Wetlands – acs.	0	1.78	1.78	1.95	1.95	1.78	1.78	1.95
Waters of the U.S. – l.f.	0	1,385	1,570	1,555	1,790	1,375	1,560	1,540
Stream Crossings	0	17	18	18	19	17	18	18
Stream Relocation and Channelization	0	1	1	1	1	1	1	1
100-year Floodplain + acs.	0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Parklands – acs.	0	0	0	0	0	0	0	0
Woodlands – acs.	0	16.69	16.69	16.30	16.30	13.19	13.19	16.30
Farmland (active) – acs.	0	0	0	0	0	0	0	0
Noise*	3	5	5	5	5	5	5	5
Air Quality (violations)	0	0	0	0	0	0	0	0
Consistent with Comprehensive Plan	No	Yes						
Cost (millions)	N/A	\$44	\$43	\$53.5	\$52.5	\$49	\$48	\$52.5

Note: All impacts and cost estimates shown reflect the implementation of the 22-foot bifurcated median option.

* Expressed as the number of Noise Sensitive Areas for which either the Federal Noise Abatement Criteria were approached (66 dBA) or exceeded or there was a 10 dBA or more increase over ambient noise levels. Costs of noise barriers are included in the construction cost.

The total cost of the project can be broken down into several different categories. These include the following:

1. Project Planning	\$827,000
2. Preliminary Engineering	\$5,090,000
3. Right-of-Way	\$633,000
4. Construction	\$46,000,000
Total	\$52,550,000

3.0 Summary of Actions and Recommendations



3.0 SUMMARY OF ACTIONS AND RECOMMENDATIONS

3.1 Purpose and Need

Improvements to the existing US 1 Bel Air Bypass are proposed to reduce accident rates that are significantly higher than the statewide average rate for similar state highways, and to accommodate projected increases in traffic volumes resulting from planned growth. An increasing number of single and multi-family residential developments are being constructed adjacent to the Bel Air Bypass, particularly north of Valé Road, in response to the demand for housing in this area and in accordance with approved local plans. As a result of this growth, average daily traffic volumes (ADTs) for the year 2000 are projected to increase by 50% to 100% by the year 2025.

3.1.1 System Linkage

The US 1 Bel Air Bypass project studies the segment of US 1 from its intersection with MD 147 to north of the MD 24/924 interchange. The intersection at MD 147 was chosen as the southern terminus of the study for several reasons:

1. US 1, from MD 152 to MD 147, is a four-lane undivided facility that is currently undergoing a project planning study.
2. The four-lane section of the Bel Air Bypass from MD 147 to south of Winters Run will accommodate projected traffic volumes through the year 2020 and therefore is not proposed for improvement.

The northern terminus for the project was chosen as north of MD 24/924 for several reasons. There is a need for capacity and safety improvements along US 1 from south of Winters Run through the MD 24/924 interchange. Large volumes of traffic enter and exit US 1 at the MD 24/924 interchange and the increased capacity is necessary south of the interchange. North of all interchange ramps at MD 24/924, the roadway would begin to transition from a four-lane divided highway to a two-lane undivided highway. The transition would occur north of the interchange in order to separate the decision points. Where the transitional section of US 1 ends, another project, the US 1 Hickory Bypass begins. The Hickory Bypass project will result in a new highway that will serve as an extension of the Bel Air Bypass. The new highway will be a 4-lane divided facility similar to the proposed Bel Air Bypass. The Hickory Bypass is currently under construction and is expected to be finished in 2001.

Dualization of the US 1 Bel Air Bypass will link an improved highway south of the study area with a new highway north of the study area. Interchange improvements will improve access to I-95 and the retail/business district of Bel Air via MD 24 and MD 924.

3.1.2 Traffic Volumes

Traffic measurements from 1993 and year 2020 travel demand forecasts were conducted for the study area. This data is used throughout this document to determine year 2000 and 2025 forecasts based on a straight-line interpolation/extrapolation method. Table 2 and Figure 1 show the Average Daily Traffic (ADT) volumes projections for 2000 and 2025. In 2000, ADT at the southern end of the project area is forecasted at 25,450. In the middle of the project the ADT is projected to be 36,800 and at the northern end it is projected to be 15,400. In 2025, the ADT volumes increase to 49,700 (+95%), 61,700 (+68%), and 27,100 (+76%) respectively.

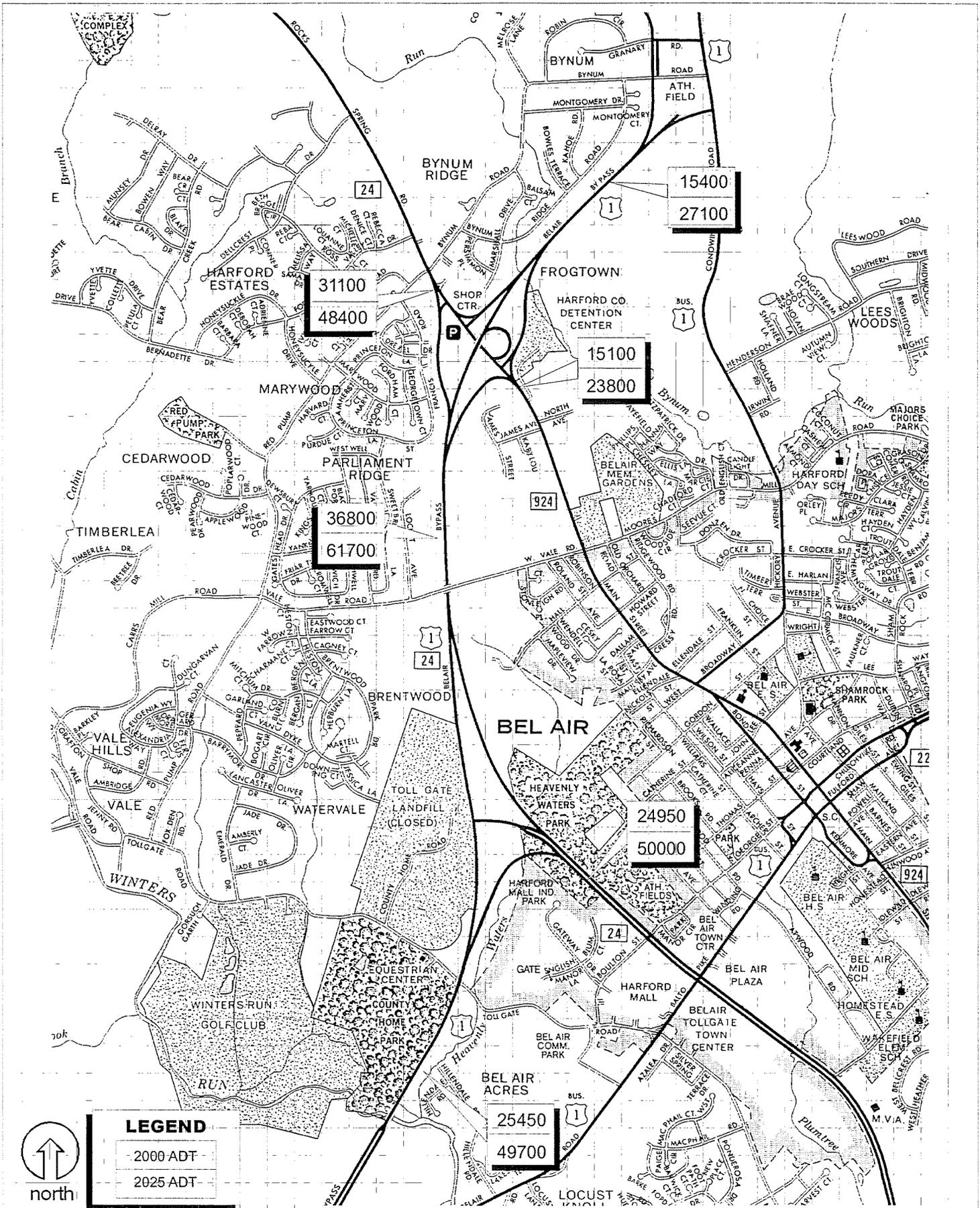
**TABLE 2
AVERAGE DAILY TRAFFIC**

	2000	2025
Between MD 147 and MD 24	25,450	49,700
Between MD 24 and MD 24/924	36,800	61,700
North of MD 24/924	15,400	27,100

AM and PM peak hour traffic volumes are also expected to experience a considerable increase by the year 2025. The most significant changes occur on the southbound side of US 1 during the AM peak and on the northbound side during the PM peak. As shown on Figures 2A and 2B, the traffic volumes for US 1 at the northern end of the study area are expected to rise from 996 vehicles per hour (vph) to 2000 vph southbound in the AM; and from 821 vph to 1,339 vehicles per hour northbound in the PM. In the middle of the study area, the vph will increase from 2,200 to 3,906 for southbound traffic in the morning; and from 2,118 to 3,605 vph northbound in the evening. At the southern end of US 1 in the study area, the vph will increase from 1,900 to 3,625 vph for southbound traffic in the morning and from 1,593 to 3,149 vph for northbound traffic in the evening.

3.1.3 Capacity

Level-of-service (LOS) is a qualitative measure of highway operating conditions at any given time based on speed, ability to maneuver, traffic interruptions, delay, volume to capacity ratio (the number of vehicles passing a given point compared to the theoretical maximum number of vehicles that could pass



**U.S. 1 from MD 147
to North of MD 24/924**

Figure 1

Average Daily Traffic (ADT)



STATE HIGHWAY ADMINISTRATION

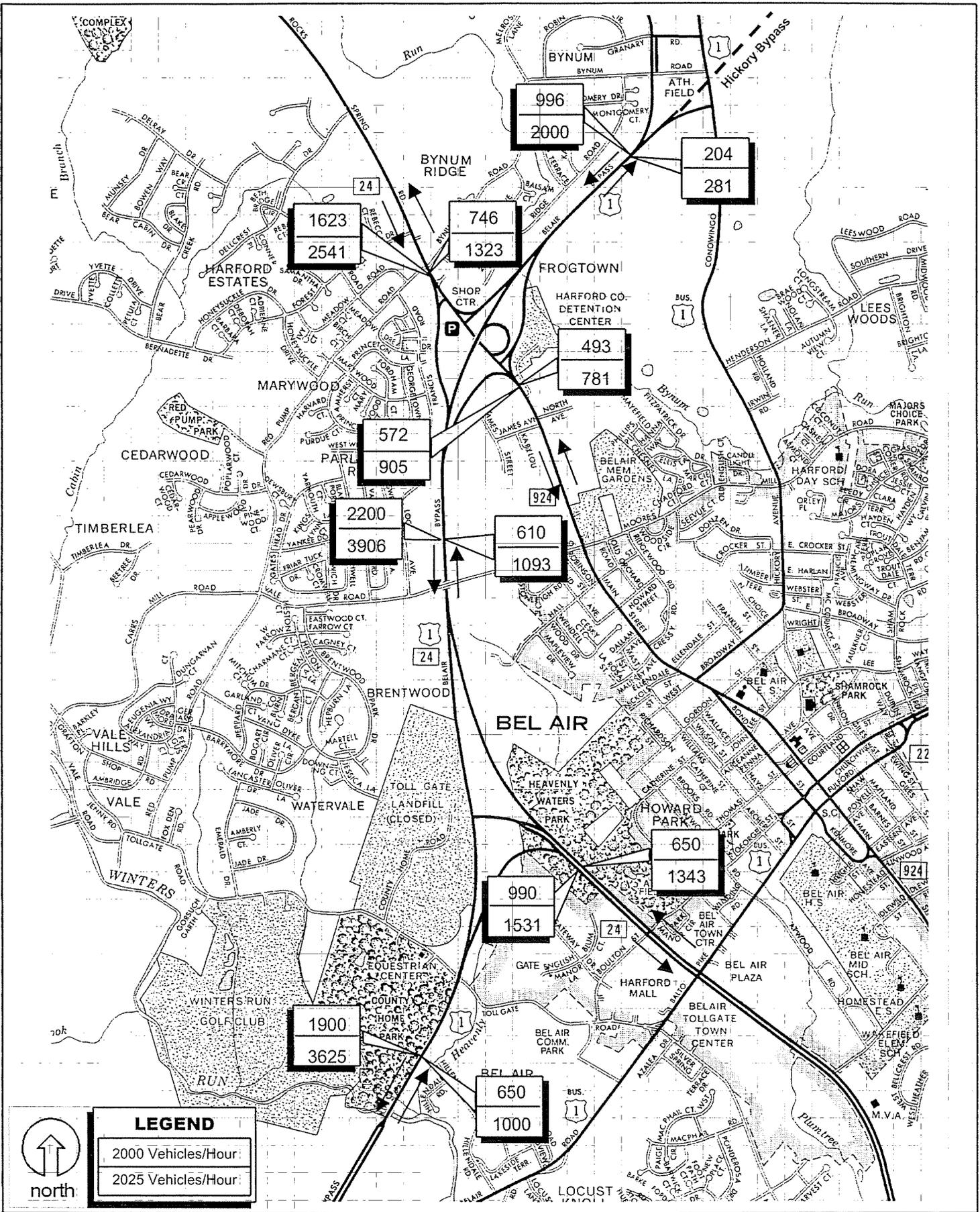
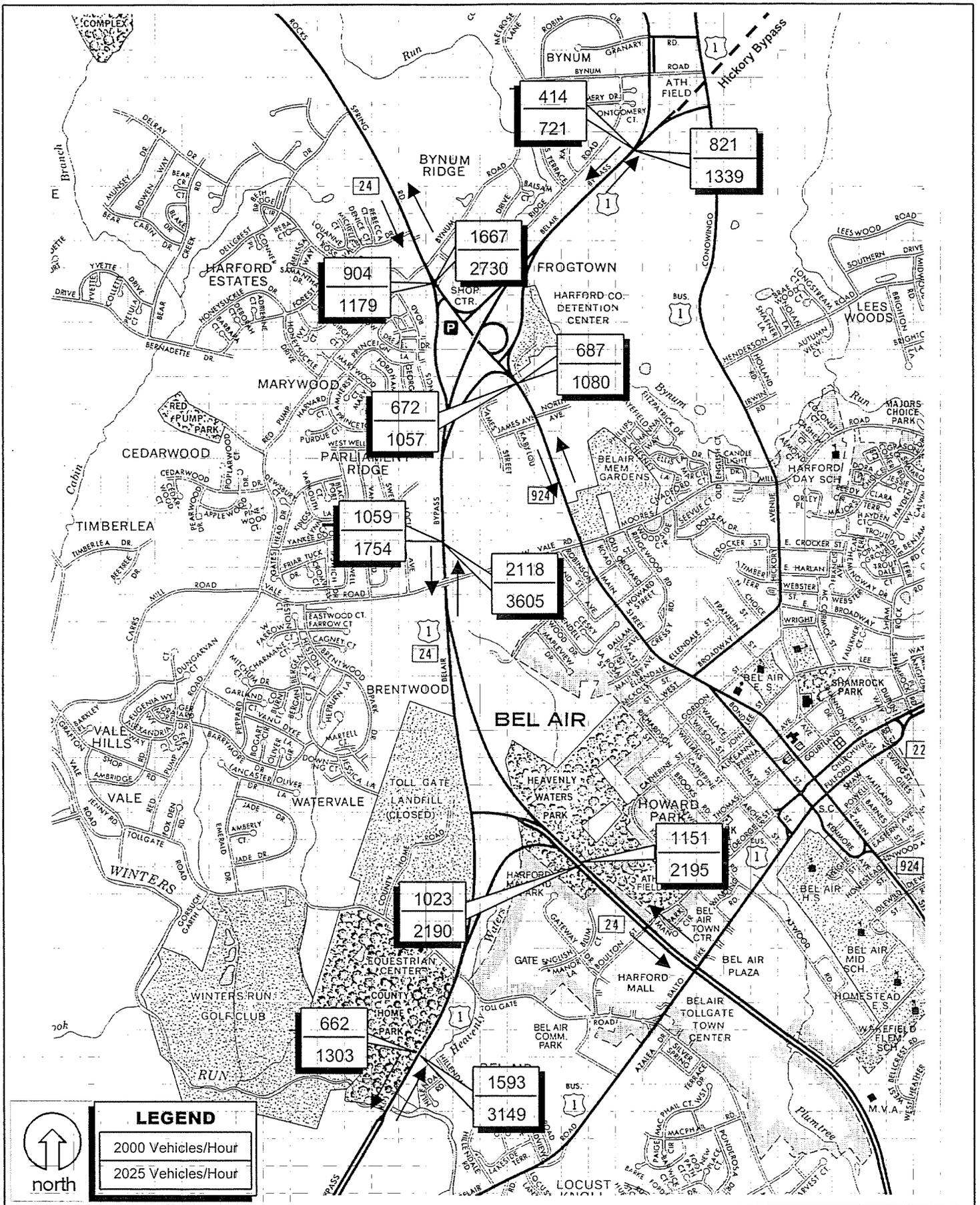


Figure 2a

AM Peak Hour Traffic Volumes



**U.S. 1 from MD 147
to North of MD 24/924**

PM Peak Hour Traffic Volumes

Figure 2b



that point during an interval of time), and other factors. This measure is dependent upon highway geometry and traffic characteristics, and ranges from LOS A (best) to LOS F (worst).

- LOS A is free flow, with low volumes, high speeds, and a high degree of maneuverability.
- LOS B is reasonably free flow, with speed and maneuverability slightly restricted by traffic conditions.
- LOS C is stable flow, with speed and maneuverability restricted by traffic conditions.
- LOS D approaches unstable flow, speed and maneuverability are noticeably restricted and controlled by traffic conditions.
- LOS E represents volatile flow with virtually no usable gaps in the traffic stream and volumes at or near capacity.
- LOS F is forced flow operations with low speeds and volumes above capacity.

Level-of-service (LOS) analyses have been conducted assuming a no-build condition for the years 2000 and 2025. (Table 3 lists mainline levels-of-service and Table 4 shows the intersection level-of-service and volume to capacity ratio).

**TABLE 3
MAINLINE LEVEL OF SERVICE – NO-BUILD
US 1**

	2000				2025			
	AM		PM		AM		PM	
	NB	SB	NB	SB	NB	SB	NB	SB
MD 147 to MD 24	B	E	D	B	B	F	F	D
MD 24 to MD 24/924	A	E	C	B	B	F	F	C
North of MD 24/924	A	C	C	A	A	E	D	B

**TABLE 4
INTERSECTION LEVEL-OF-SERVICE/VOLUME TO CAPACITY RATIO
US 1**

	AM		PM	
	2000	2025	2000	2025
	US 1 @ MD 24	C/1.73	F/1.43	F/1.28

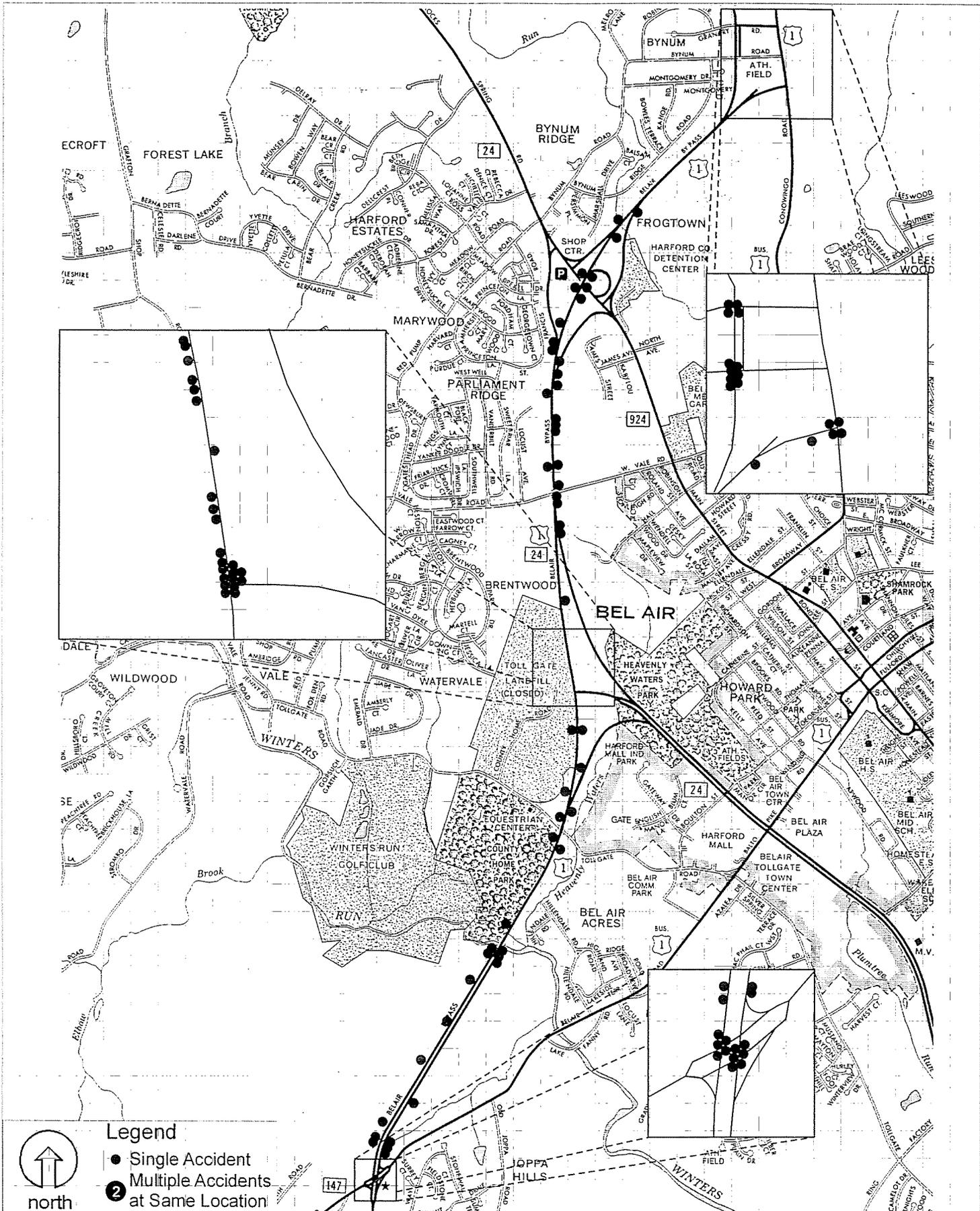
Mainline LOS for US 1 was evaluated through three segments of roadway. These were the section between MD 147 and MD 24; the section between MD 24 and MD 24/924; and the section north of MD 24/924. For year 2000, during the peak hours the section between MD 147 and MD 24 will operate at LOS E in the morning and LOS D in the evening in the peak direction. This situation will worsen to LOS F in both the morning and evening by 2025. Year 2000 peak hour LOS for the section between MD 24 and MD 24/924 will operate at LOS E in the morning and LOS C in the evening in the peak directions. Again, the LOS in this segment will worsen to LOS F in both peak hours by the year 2025. The third section, north of MD 24/924 will operate at LOS C in both the AM and PM peaks in 2000 for the peak direction and in year 2025 will operate at LOS E in the morning and D in the evening.

The intersection of US 1 with MD 24 is projected to experience a dramatic change in LOS between 2000 and 2025. This intersection is expected to drop from LOS C in the AM and LOS F in the PM in 2000 to LOS F in both the AM and PM peaks by the year 2025 under the No-Build alternate. Volume to capacity (V/C) ratios for the intersection will increase from 0.73 during the AM and 1.28 in the PM to 1.43 in the AM and 2.31 in the PM.

3.1.4 Safety

There were 103 police-reported accidents on US 1 in the study area between January 1, 1995 and September 30, 1998 (see Figure 3). These accidents resulted in a rate of 87.8 accidents per 100 million vehicles miles of travel (acc/100 mvm) over the study period. This rate is significantly higher than the statewide average accident rate of 48.3 acc/100 mvm.

The accidents experienced in the study area are listed by severity and are shown along with the accident rates and the corresponding statewide average accident rates for each level of severity in Table 5. The rate of accidents for both injury (44.3 acc/100 mvm) and property damage (42.6 acc/100 mvm) are higher in the study area than for the state as a whole (26.0 acc/100 mvm and 21.5 acc/100 mvm, respectively). Study area property damage occurred at a rate nearly double the statewide average, while injury accidents occurred at a rate 70% greater than the statewide average rate.



**U.S. 1 from MD 147
to North of MD 24/924**

Accident Locations 1995-1998

Figure 3



STATE HIGHWAY ADMINISTRATION

**TABLE 5
STUDY AREA ACCIDENTS**

Severity	1995	1996	1997	1998 ¹	Total	Rate (Acc./100MVM)	Statewide Avg. Rate ² (Acc./100MVM)
Fatal Accidents	0	0	1	0	1	0.8	0.8
Injury Accidents	15	13	15	9	52	44.3*	26.0
Property Damage	13	12	16	9	50	42.6*	21.5
Total Accidents	28	25	32	18	103	87.8*	48.3

*Significantly higher than the statewide rate

¹ 1/1/98 - 9/30/98 only

² Statewide Average Rate for facilities of this type.

The study area experienced significantly higher accident rates than the statewide average in four collision type categories (Table 6). The angle-type accident rate (14.5 acc/100 mvm) is nine times that of the statewide average rate (1.6 acc/100 mvm). The left-turn accident rate (6.0 acc/100 mvm) is more than eight-and-a-half times that of the statewide average rate (0.7 acc/100 mvm). The fixed object accident rate (24.7 acc/100 mvm) is more than twice the statewide average rate (11.6 acc/100 mvm). The rate of accidents falling under the category of "other" is 13.6 acc/100 mvm. This rate is about three-and-a-half times the statewide average (3.9 acc/100 mvm). Generally, the "other" accident category is used to describe accidents that do not fit into any standard collision type but are still classified as accidents (i.e. vehicle fire). Two important accident types that fit into the "other" category are deer and U-turn collisions.

**TABLE 6
STUDY AREA ACCIDENT CHARACTERISTICS**

Collision Type	Total Accidents	Study Rate (Acc./100 MVM)	Statewide Avg. Rate ¹ (Acc./100 MVM)
Angle	17	14.5*	1.6
Left Turn	7	6.0*	0.7
Rear End	26	22.2*	19.1
Fixed Object	29	24.7*	11.6
Other	16	13.6*	3.9

*Significantly higher than the statewide rate.

¹ Statewide average rate for similarly designed highways.

Note: Data shown is from 1/1/95 to 9/30/98.

The nighttime, wet/snow/ice surface, and alcohol-related accidents are compared to the statewide percentage of these accidents by environmental condition in Table 7. These accidents, resulting from adverse environmental conditions, fell within an acceptable range, except alcohol-related accidents that were significantly higher than the statewide percentage.

**TABLE 7
ACCIDENT ENVIRONMENTAL CONDITIONS**

Collision	Total Accidents	% of Total Accidents	Statewide %
Nighttime	37	36	32
Wet/Snow/Ice Surface	25	24	28
Alcohol-Related	12	12*	8

*Significantly higher than the statewide rate.

One location met the criteria for a High Accident Location. In 1996, a 0.5 mile stretch of US 1 from just south of W. Vale Road to the first exit ramp of the US 1/MD 24/924 interchange (mile 5.32-5.82) was classified as a High Accident Section (HAS). It had 5 accidents with a rate of 243 acc./100 mvm. This HAS was within an area containing a high concentration of rear end accidents. However, in 1998 this section was widened from a 2-lane roadway to a 4-lane roadway.

Overall, the section of US 1 from MD 147 to North of MD 24/924 experienced an average accident rate of 87.8 acc/100 mvm during the study period. This accident rate is significantly higher than the statewide rate of 48.3 acc/100 mvm for a similarly designed highway.

3.1.5 Master Plan Compatibility

The portion of US 1 north of Winters Run is located within the Rock Spring study area of the plan. Although the adjacent low and medium-intensity land uses do not have direct access to this section of US 1, these land uses are serviced by US 1 via MD 23, MD 24, MD 924 and US 1 Business (north of Bel Air). The current development pattern in this part of the County is expected to continue. US 1 will also be affected by high-intensity commercial and residential development in the vicinity of Hickory where a new bypass is being designed, and industrial and commercial development near the planned intersection of MD 23 and US 1 between Bel Air and Hickory. Improvements to existing US 1 are consistent with the recently enacted Smart Growth and Neighborhood Conservation Act. This project would serve an area with existing development within the Development Envelope. The widening that will result from the proposed project is not expected to promote secondary or cumulative growth. Traffic volumes generated by the continuing growth along US 1 and elsewhere within the Development Envelope will worsen the existing operational and safety problems on US 1. Capacity and safety improvements on US 1 and US 1 Business are listed as priorities in *Transportation Plan: An Element of the Harford County Master Plan*, January 1994. The US 1 Bel Air Bypass project is also listed in the current Statewide Transportation Improvement Program and the long-range plan for the Baltimore Region.

3.1.6 Conclusion

Accident rates on US 1 in the study area already significantly exceed statewide averages for similar roadways and US 1 is predicted to experience a large increase in traffic as the areas north of Bel Air continue to develop in accordance with approved and adopted plans. Growth trends in the study area indicate a 24% increase in population by the year 2020 in accordance with these plans. Economic development will continue with the number of jobs in the study area expected to grow approximately 26% over the same time period, based on County employment projections. Additional job growth is occurring elsewhere in the County, especially in designated Enterprise Zones. Since US 1 is a major transportation route through Harford County, it is anticipated that growth in the surrounding area will affect traffic and congestion along US 1.

Peak period LOS in the study area is poor and will worsen as traffic grows. Additional mainline capacity for US 1 is needed, as well as additional capacity for the at-grade intersection of US 1 and MD 24, in order to maintain satisfactory LOS during AM and PM peak hours in the year 2025.

3.2 Alternates Considered

3.2.1 Alternates Retained for Detailed Study

Alternate 1 (the No-Build Alternate) as well as Alternates 3, 4, and 5, and Options A and B were retained for detailed study and presented in the Environmental Assessment and at a public hearing on March 24, 1999. Each build alternate includes the dualization of US 1 from south of Winters Run to north of MD 24/924. The existing roadway section would become the southbound lanes of the dual highway. Four lanes (two lanes in each direction) and a 34-foot nominal median width are proposed from south of Winters Run to MD 24 and also north of the MD 24/924 interchange. Between MD 24 and MD 24/924 six lanes were proposed (two through lanes plus one auxiliary lane in each direction). Within this section, the proposed median width was 38 feet due to constraints imposed by the Vale Road bridge over US 1. The Vale Road bridge was designed to cross a four-lane divided highway with a 78-foot median. The median width varied with each alternate through the MD 24 interchange to accommodate differing ramp configurations. In addition, for the portion of US 1 from south of Winters Run to the MD 24 interchange, a 22-foot median had been proposed to reduce impacts to wetlands.

Alternate 1 (No-Build)

Alternate 1 is the No-Build Alternate. It differs from the No-Build Alternate described in the previous section because it includes widening of the existing roadway to add one auxiliary lane in each direction

between MD 24 and MD 24/924 and the addition of auxiliary lanes on MD 24 at the Red Pump/Bynum Road intersection and on the ramp from southbound MD 24 to southbound US 1, in order to reduce peak hour congestion and delay. These improvements are now in place and are considered as existing conditions that are now part of the No-Build Alternate.

Alternate 3 (Grade-Separated Tee Interchange)

Under Alternate 3, northbound and southbound US 1 traffic would be free flowing through the MD 24 interchange but the movements to and from southbound US 1 would utilize an at-grade intersection. The design of the at-grade intersection would require a left exit and left entrance along southbound US 1 but the southbound US 1 to southbound MD 24 and the Northbound MD 24 to southbound US 1 movements would be signalized. This option requires the construction of one bridge to carry MD 24 over northbound US 1. (See detailed plan drawings at the end of this chapter.)

Alternate 4 (Trumpet Interchange)

The existing at-grade intersection at MD 24 would be eliminated with Alternate 4 and would be replaced with a trumpet interchange. The existing southbound US 1 lanes would be relocated to the east. The auxiliary lane on the southbound side of US 1 between MD 24 and MD 24/924 becomes semi-directional Ramp D as it approaches the MD 24 interchange. Semi-directional ramp D would provide for the southbound US 1 to southbound MD 24 movement. Loop ramp C is proposed to provide for the northbound MD 24 to southbound US 1 movement. (See detailed plan drawings at the end of this chapter.)

Alternate 5 (Three-Level Directional Interchange)

Alternate 5 would eliminate the existing at-grade intersection at MD 24 by constructing a three-level directional interchange with US 1 northbound, ramp C and ramp D crossing at a single point. Directional ramp D is proposed to provide for the southbound US 1 to southbound MD 24 movement. A bridge is required that would pass over the northbound US 1 mainline bridge and directional ramp C (northbound MD 24 to southbound US 1). Ramp C would be constructed at the lowest level. (See detailed plan drawings at the end of this chapter.)

Option A

MD 24/924 would be widened by adding one through-lane in each direction from north of Red Pump and Bynum Roads to approximately 800 feet south of the interchange, as well as adding turning lanes and a 4-foot monolithic concrete median. Turn lanes would also be added on the Bynum Road approach to

MD 24. Sidewalks would be provided along both sides of MD 24/924 through the interchange. The park and ride lot would be replaced near its present location. Access to and from the park-and-ride lot would be provided at two locations. An entrance would be provided off of Ramp B. A signalized intersection at Ramp B and MD 24/924 would provide for access to both northbound MD 24 and southbound MD 924. A right-in, right-out would be provided directly off of MD 24.

The northbound US 1 to northbound MD 24 movement, loop ramp C, is proposed to be a double lane loop ramp. Ramp A would take off from the existing northbound US 1 to southbound MD 924 ramp.

Spur ramp B is proposed to provide for access from northbound MD 924 to southbound US 1. Ramp B is a relocation of an existing substandard ramp. It would intersect MD 24/924 directly across from the existing ramp from southbound US 1 to southbound MD 924 with a new signalized intersection. Access to the park-and-ride lot will be provided at spur ramp B and a right-in-right-out adjacent to the US 1 overpass. (See detailed plan drawings at the end of this chapter.)

Option B

MD 24/924 would be widened to a four-lane divided highway with turning lanes from north of Red Pump and Bynum Roads to approximately 800 feet south of the interchange and would include a landscaped closed median that varies in width. The existing US 1 bridge provides adequate space for this roadway dualization. No modifications to the bridge would be necessary. Turn lanes would also be added on the Bynum Road approach to MD 24. Sidewalks would be provided along both sides of MD 24/924 through the interchange. The park-and-ride lot would be replaced near its present location and would have a single access point.

Loop ramp C, from northbound US 1 to northbound MD 24 would be widened to two lanes. The alignment of the ramp would be modified to tie into the proposed northbound US 1 lanes.

Spur ramp B is proposed to provide for improved access from northbound MD 924 to southbound US 1. Ramp B is a relocation of an existing substandard ramp. The ramp would originate at the existing northern egress from the park-and-ride lot. (See detailed plan drawings at the end of this chapter.)

3.2.2 22-Foot Median Options

In order to further minimize impact to wetlands in the study area, two reduced median options were proposed for the 0.3-mile segment of US 1 from south of Winters Run to the MD 24 interchange. These options would be implemented as part of Alternate 3, 4, or 5 and would replace the proposed 38-foot median with a 22-foot median or a 22-foot bifurcated median through that segment. By reducing the

median to a 22-foot width, grading from the proposed northbound lanes through this section of US 1 would not extend as far eastward. By utilizing a bifurcated median, the northbound lanes of the new dual highway would be constructed on a lower elevation than the southbound lanes. Therefore, less grading would be necessary on the east side of US 1 through this section and wetland impacts could be further reduced.

3.2.3 Effects on Traffic Operations

A Level-of-Service (LOS) analysis was performed for the build alternates using volume projections for the year 2025. The LOS calculations for the roadway portion of the project are identical for each build alternate and are shown in Table 10.

**TABLE 8
US 1 2025 LEVEL-OF SERVICE
NO-BUILD VS. BUILD**

US 1 Links		2025 No-Build		2025 Build	
		AM	PM	AM	PM
NB Lanes	From MD 147 to MD 24	B	F	B	D
NB Lanes	From MD 24 to MD 24/924	B	F	A	C
NB Lanes	North of MD 24/924	A	D	A	B
SB Lanes	From MD 147 to MD 24	F	D	D	B
SB Lanes	From MD 24 to MD 24/924	F	C	D	A
SB Lanes	North of MD 24/924	E	B	C	A

Under any build alternate, southbound US 1 will operate at LOS C/D/D (depending on the section) during the morning peak hour in 2025. Under the no-build alternate, it would operate at LOS E/F/F for this period. Northbound US 1 will operate at LOS B/C/D under any build alternate during the evening peak hour in 2025. Under the no-build alternate, it would operate at D/F/F for this period.

Levels-of-service at the intersection of US 1 and MD 24 are shown in Table 11. Under 2025 No-Build conditions, the intersection will operate at LOS F in both the AM and PM peak hours. Alternate 3 proposes an at-grade intersection at MD 24 and southbound US 1 for the southbound US 1 to southbound MD 24 and northbound MD 24 to southbound US 1 movements. This intersection is also predicted to operate at LOS F in both the AM and PM peak hours. Alternates 4 and 5 eliminate the intersection of US 1 and MD 24 and provide free-flow interchange movements.

**TABLE 9
INTERSECTION LEVEL-OF-SERVICE**

Alternate	Intersection	AM		PM	
		2000	2025	2000	2025
No Build	US 1/MD 24	C	F	F	F
Alternate 3	US 1/MD 24	A	F	A	F
Alternate 4*	N/A	N/A	N/A	N/A	N/A
Alternate 5*	N/A	N/A	N/A	N/A	N/A

*Alternates 4 and 5 propose fully directional interchanges instead of intersections. Therefore intersection LOS was not applicable to these build alternates.

3.2.4 Congestion Management System

US 1 lies within Corridor #17 of the Maryland Department of Transportation's Congestion Management System (CMS). The CMS program resulted from a mandate of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. The program entails a high level of analysis of causes and solutions to traffic congestion and mobility needs for 28 transportation corridors across the State of Maryland. Corridor #17 stretches from Cecil County to downtown Baltimore. Although the primary facility in Corridor #17 is I-95, US 1 in the project area is one of the main roadways in the CMS Corridor. Conclusions of the CMS Corridor #17 Report included the following:

- The highway capacity enhancements mainly implemented along US 1 do not greatly affect the operation of I-95. Traffic volumes and speeds, however, along US 1 in the improvement areas are seen to increase.
- The TDM and TSM measures, including bus transit service improvements, by themselves, are insufficient in providing congestion relief and noticeable mobility improvements in the corridor. However, as elements of an overall strategy in support of other more capital intensive elements – fixed guideway transit, HOV lanes, highway capacity improvements, etc. – they are useful, and given their relatively low cost, are cost-effective improvements.

3.2.5 Major Investment Study

The US 1 Bel Air Bypass MIS sub-team was established in February 1996 to evaluate MIS strategies for this project. Team members included the Baltimore Metropolitan Council (BMC) staff representing the Baltimore Regional Transportation Steering Committee (the Metropolitan Planning Organization), Mass Transit Administration (MTA), Federal Highway Administration (FHWA), Harford County Planning and Zoning, Harford County Department of Public Works as well as various members of Maryland State Highway Administration staff. The sub-team met on March 13, 1996, and later on March 25, 1996 to

initiate the development of Congestion Management Strategies. All future work regarding MIS was handled in regular team meetings. The sub-team developed draft Measures of Effectiveness (MOE), developed a public involvement strategy, identified agency roles and discussed possible multi-modal alternatives.

In April of 1996, team members made a presentation to the Transportation Steering Committee to formally initiate the MIS. In May of 1997, team members presented the initial MIS strategy at an Interagency Review Meeting.

The draft Measures of Effectiveness (MOE) were developed for system performance and environmental impacts. The system performance MOE were: traffic volumes, volume to capacity ratio, level of service, vehicle occupancy, transit ridership, truck percentages, travel time by mode, delay, travel speed and number of incidents (accident rates). The environmental impact MOE were: communities and businesses, cultural resources, floodplains, public parks and recreational areas, streams, wetlands, air and noise, and farmlands.

The US 1 Bel Air Bypass sub-team followed the findings of the CMS Corridor #17 Report. The planning study progressed concurrently with the CMS with the knowledge that the initial CMS results indicated highway based alternatives appeared to be the only set of solutions feasible for this segment of the corridor. Once the CMS report was finalized in December of 1996, the recommendations were examined and the draft MOE were revisited. Based upon the highway oriented CMS recommendations MOE retained included, the traffic volumes, volume to capacity ratio, level of service and number of accidents as well as the draft environmental impact MOE.

Based upon CMS recommendations the team examined TSM strategies, the highway widening and upgrade alternatives, bicycle and pedestrian accommodations, and land use concerns in terms of the MIS/NEPA evaluation. The study team also supports Harford County's efforts to prohibit the extension of water and sewer facilities into the western part of the county by studying only options that control access and therefore help the County's efforts to limit development in the study area. The results of the CMS report were summarized above. Analysis of the CMS strategies indicates that none of the packages will adequately address the congestion problems anticipated in this corridor.

A resolution that the MIS requirements have been addressed for the US 1 Bel Air Bypass project was on the agenda for the February 1999 meeting of the Transportation Steering Committee (TSC). At the meeting, the TSC concurred on the alternates retained for detailed study as identified by the SHA.

3.2.6 SHA-Selected Alternate

Following the March 24, 1999 Location/Design Public Hearing and the resolution of outstanding issues involving the state- and federally-listed threatened species, the bog turtle, Alternates 3, Alternate 5, and Option A were dropped from further study. Alternate 3 was dropped because it did not alleviate the safety concerns associated with the existing at-grade intersection. Alternate 5 was dropped due to unfavorable comments from the public associated with the alternate's incompatibility with the surrounding environment and potential safety concerns related to non-traditional left exit ramps. Option A was dropped due to safety concerns associated with pedestrian crosswalks along bus turning lanes within the park-and-ride lot and the median width proposed for MD 24/924. A modified Alternate 4 with Option B was identified as the SHA-Selected Alternate for the US 1 Bel Air Bypass.

A Project Review and Alternate Selection Meeting was held with the SHA Administrator on Tuesday February 15, 2000. The Administrator, Mr. Parker Williams, concurred on the selection of Alternate 4B and instructed the Planning team to include the bifurcation option as part of the SHA-Selected Alternate to further minimize impacts to wetlands. In conjunction with Alternate 4B the Administrator selected Landscape Option 1 and the No-Build bicycle option. Fencing will be implemented in accordance with the controlled access facility criteria. Fence locations will be determined during the Final Design Phase of the project.

SHA-Selected Alternate 4B Modified proposes a trumpet interchange that eliminates the existing at-grade intersection at MD 24 and US 1. Under this scenario, US 1 would be relocated east away from Heavenly Waters Park to allow room for a loop ramp from MD 24 to US 1 southbound. All other turning movements would also be accommodated by free-flowing ramps. One bridge would be required to carry MD 24 traffic over US 1. A retaining wall (0.3 miles) and a 22-foot bifurcated median are proposed south of MD 24 in the vicinity of Heavenly Waters Run in order to reduce the impacts to adjacent wetlands.

SHA-Selected Alternate 4B Modified includes dualization of US 1 from south of Winters Run to north of MD 24/924. The existing roadway section would become the southbound lanes of the dual highway. Four lanes (two lanes in each direction) are proposed from south of Winters Run to MD 24, and north of the MD 24/924 interchange to the northern end of the project. The ultimate 78-foot median, which was planned in the early 1960's, was reduced to 34 feet to reduce environmental impacts and to be consistent with the typical section for the Hickory Bypass project. Between MD 24 and MD 24/924, six lanes are proposed (three lanes in each direction). Because of the geometric constraints imposed by the location of the Vale Road Bridge over US 1, within this section, the proposed median width is 38 feet. Increasing the median width from 34 to 38 feet would allow adequate space for northbound and

southbound traffic to safely pass the median bridge pier at the Vale Road Bridge over US 1. The typical sections for the Selected Alternate are shown at the end of this section on Figures 4a and 4b and are followed by detailed plan drawings.

On March 15, 2000, the planning team gave a presentation at the monthly Interagency Meeting highlighting the SHA-Selected Alternate 4B Modified. The US Army Corps of Engineers (ACOE) requested that the planning team look into reducing impacts associated with Park-and-Ride Option B on the stream adjacent to the lot by considering other locations and/or configurations of the lot.

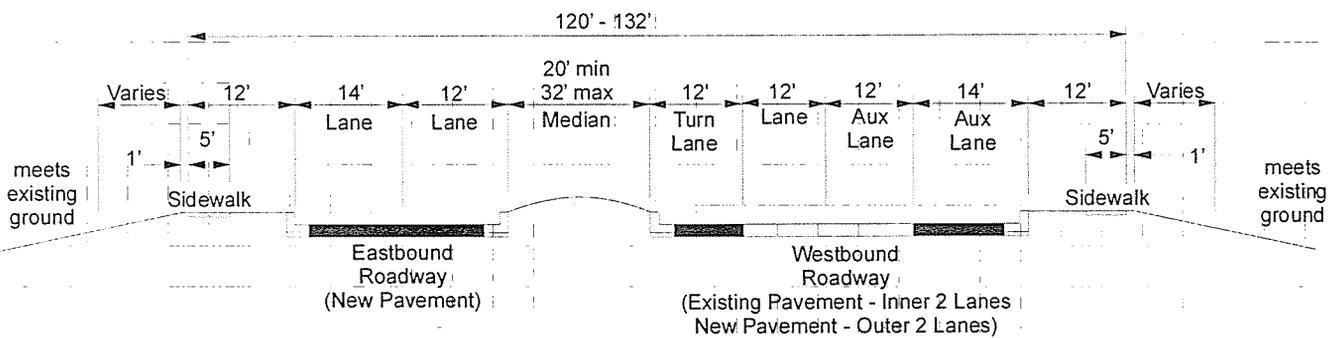
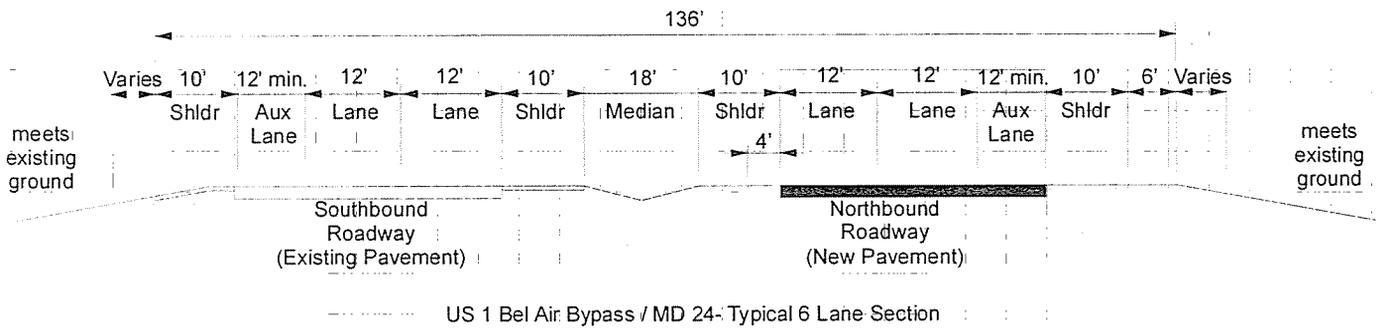
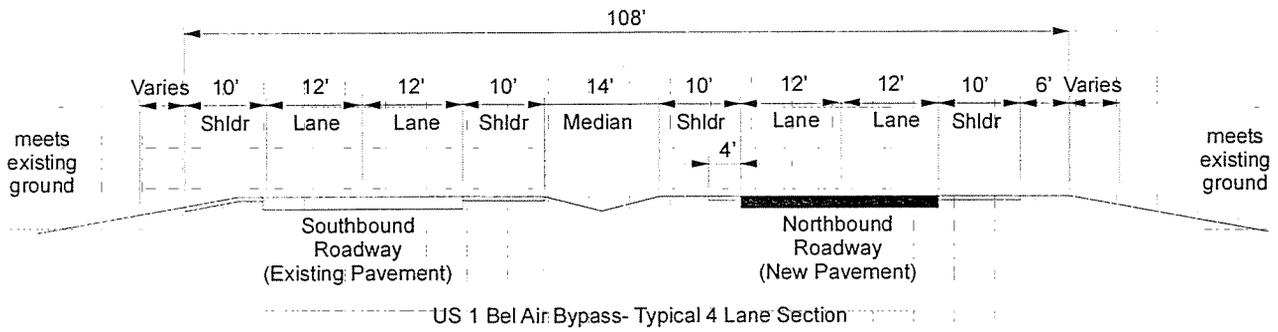
The result of the feasibility study of relocating the Park-and-Ride lot on the north side of the stream was coordinated with the ACOE and a new Park-and-Ride lot (Option B Modified) was adopted. Modifications to Option B reduced stream impacts by 200 linear feet, and forested land impacts were reduced by 0.09 acres. The safety feature of having pedestrian traffic separated from the bus turn-around path is retained in Option B Modified.

In accordance with citizens' requests, SHA developed three landscaping concepts to provide natural barriers in area where noise walls are not warranted and enhance the existing vegetation that lines the bypass area. Landscaping Concept 1, which was selected to be included as part of the SHA-Selected Alternative, proposes installing landscape screening inside of the SHA right-of-way. The areas that are delineated for this concept are located on the basis of the need for screening where future noise walls are not warranted. All landscaping is proposed outside of the US 1 Bypass limits of construction. It is anticipated that the landscape screening will provide aesthetic qualities in addition to creating a visual buffer from Bypass traffic. Landscaping Concept 2 proposes installing landscape screening outside of the limit of disturbance of the proposed improvements, but both inside and outside of SHA owned right-of-way. Under Concept 2 the landscaping would be located away from proposed noise wall locations. Landscaping Concept 3 proposes landscape screening in all possible locations, inside or outside of the existing right-of-way, and with or without the proposed noise walls. The landscaping will be initiated prior to roadway reconstruction and provide screen and visual and protective barriers to the properties that are located nearby. Once the plantings have been installed, it is anticipated that they will serve their purpose when the bypass reconstruction commences.

The planning team also reviewed several options to provide a bicycle route that ties the southern end of the US 1 Bel Air Bypass at MD 147 and the northern end at MD 23 together with the MA and PA Heritage Trail (see Figure 5). Due to environmental impacts, high costs, and lack of compatibility between the bicycle and equestrian uses of the MA and PA Heritage Trail, it was determined that construction of a separate or combination use path was not reasonable. The planning team recommended that the No-Build alternate be selected based upon the limited number of cyclists using the facility and the decision

made by SHA's Traffic Safety Division to allow cyclists to use the shoulder of the proposed dualized Bypass. The No-Build Alternate will, however, include the construction of a bike path connection from the existing MA and PA Heritage Trail tunnel at MD 24 to Boulton Street. Plans for bicycle crossings and signing at interchange ramps will be developed in the Final Design Phase of the project.

The total cost of the SHA-Selected Alternate is estimated to be \$52,550,000. Project planning costs of \$827,000, Preliminary Engineering costs of \$5,090,000, Right-of-way costs of \$633,000, and Construction costs of \$46,000,000 make up this total.



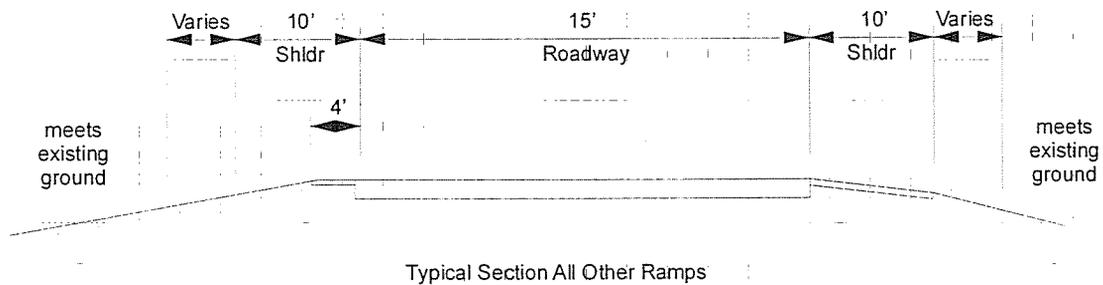
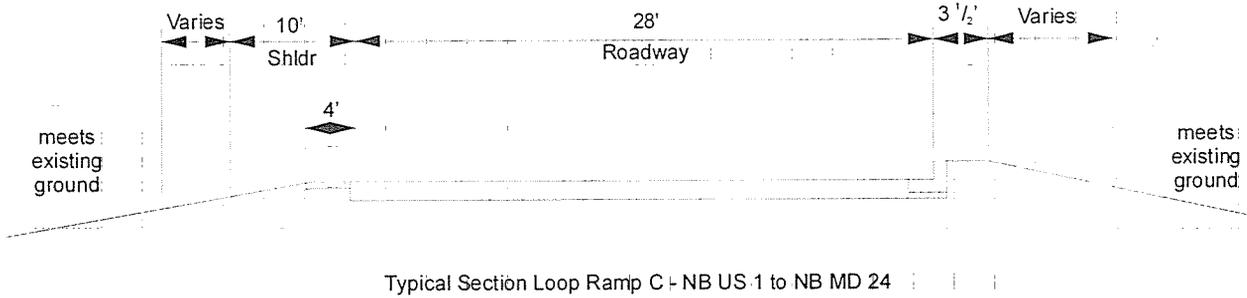
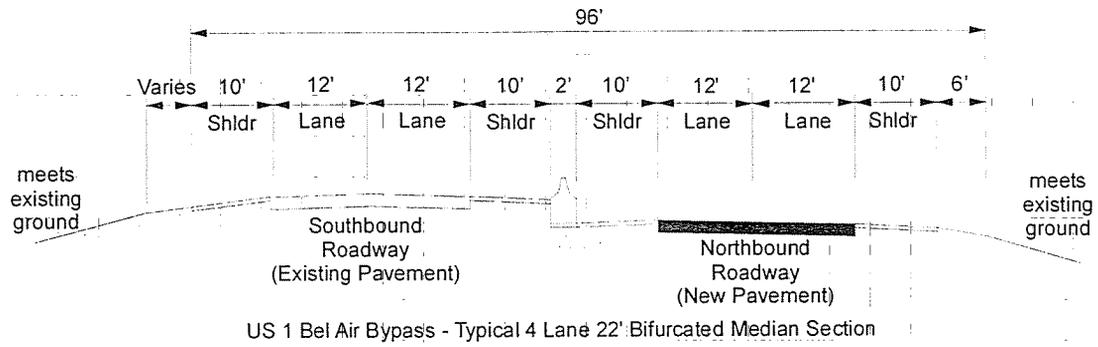
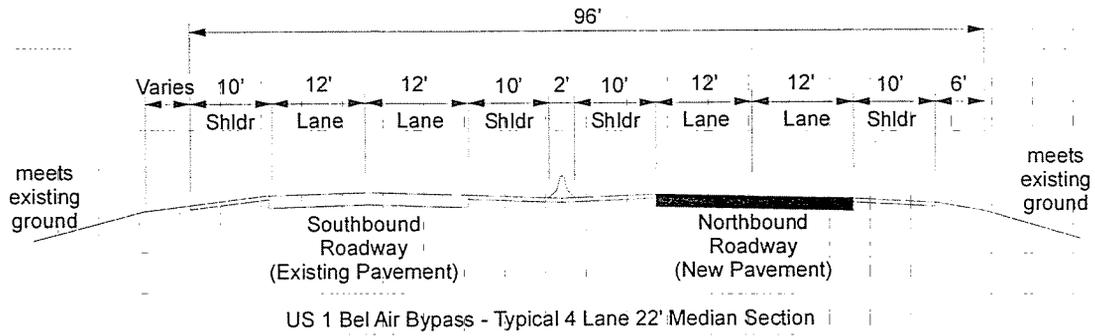
The dimensions shown are for the purpose of determining cost estimates and environmental impacts and are subject to change during the final design phase.



US 1 Bel Air Bypass
 from MD 147 to North of MD 24/924
 STATE HIGHWAY ADMINISTRATION

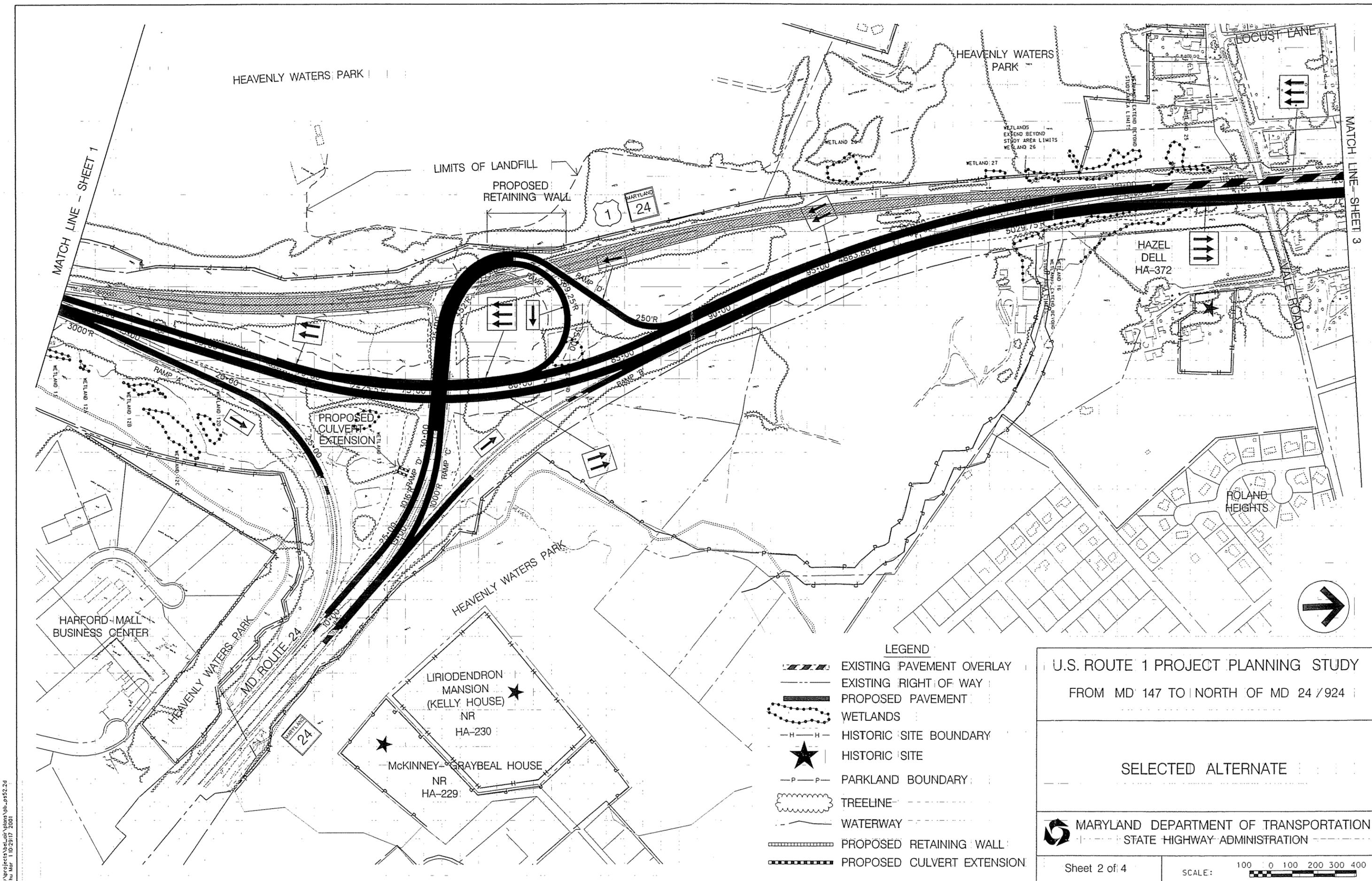
Figure 4a

Typical Sections



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





LEGEND

- EXISTING PAVEMENT OVERLAY
- EXISTING RIGHT OF WAY
- PROPOSED PAVEMENT
- WETLANDS
- HISTORIC SITE BOUNDARY
- HISTORIC SITE
- PARKLAND BOUNDARY
- TREELINE
- WATERWAY
- PROPOSED RETAINING WALL
- PROPOSED CULVERT EXTENSION

U.S. ROUTE 1 PROJECT PLANNING STUDY
FROM MD 147 TO NORTH OF MD 24 / 924

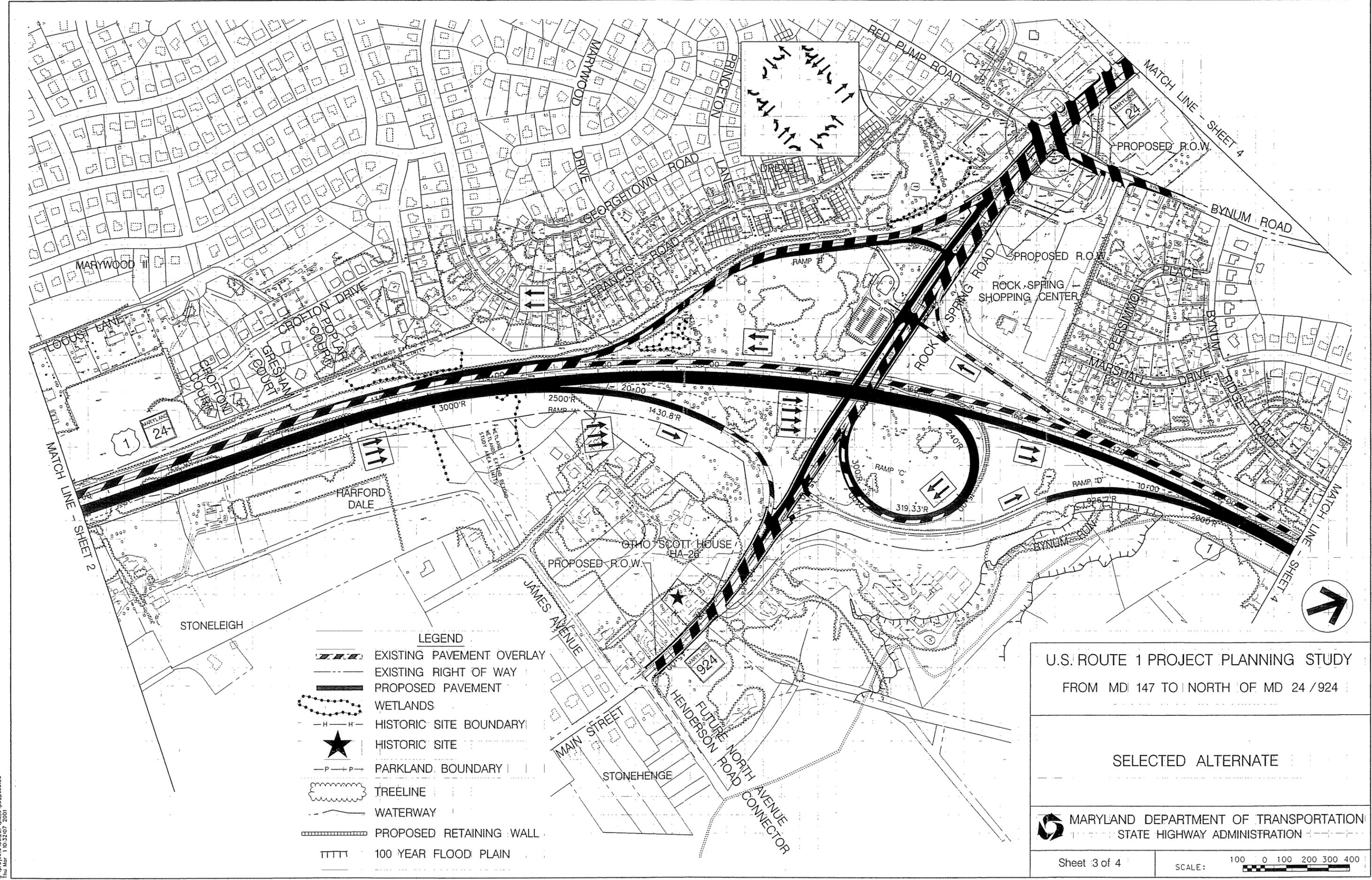
SELECTED ALTERNATE

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

Sheet 2 of 4

SCALE: 1" = 100'

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- LEGEND**
- EXISTING PAVEMENT OVERLAY
 - EXISTING RIGHT OF WAY
 - PROPOSED PAVEMENT
 - WETLANDS
 - HISTORIC SITE BOUNDARY
 - HISTORIC SITE
 - PARKLAND BOUNDARY
 - TREELINE
 - WATERWAY
 - PROPOSED RETAINING WALL
 - 100 YEAR FLOOD PLAIN

U.S. ROUTE 1 PROJECT PLANNING STUDY
 FROM MD 147 TO NORTH OF MD 24 / 924

SELECTED ALTERNATE

MARYLAND DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION

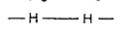
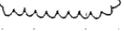
Sheet 3 of 4

SCALE: 0 100 200 300 400

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LEGEND

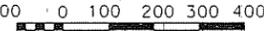
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-  EXISTING RIGHT OF WAY
-  PROPOSED PAVEMENT
-  WETLANDS
-  HISTORIC SITE BOUNDARY
-  HISTORIC SITE
-  PARKLAND BOUNDARY
-  TREELINE
-  WATERWAY
-  PROPOSED RETAINING WALL

U.S. ROUTE 1 PROJECT PLANNING STUDY
 FROM MD 147 TO NORTH OF MD 24 / 924

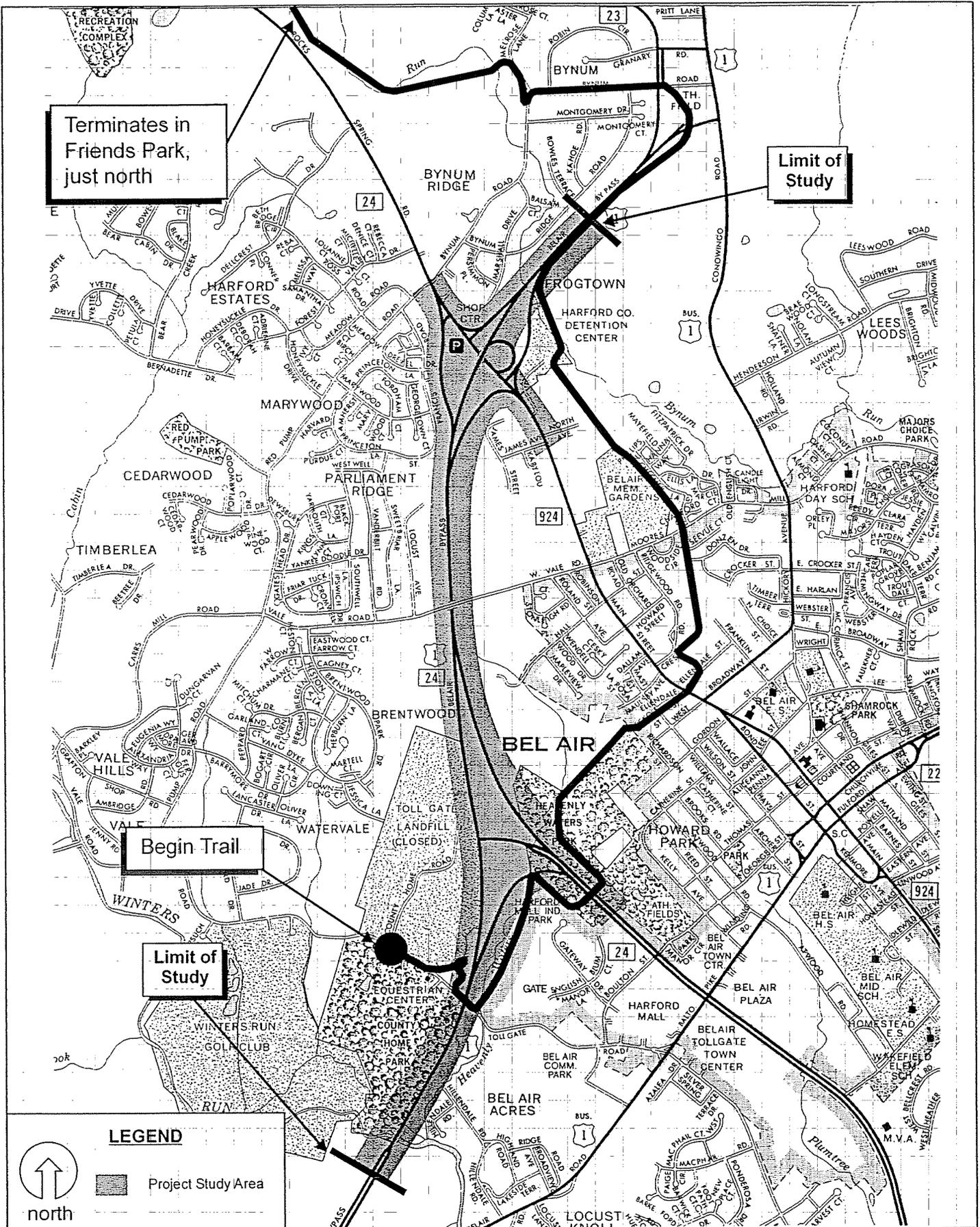
SELECTED ALTERNATE

MARYLAND DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION

Sheet 4 of 4

SCALE:  100 0 100 200 300 400





Terminates in Friends Park, just north

Limit of Study

Begin Trail

Limit of Study

LEGEND



 Project Study Area

U.S. 1 from MD 147 to North of MD 24/924



STATE HIGHWAY ADMINISTRATION

Figure 5

MA and PA Heritage Trail

3.3 Environmental Consequences

3.3.1 Social, Economic and Land Use

Displacements

The SHA Selected Alternate will not result in any residential or business displacements. Construction of this alternate will require the acquisition of several narrow strips of right-of-way from three residences and six businesses located near the intersection of MD 24 and Bynum/Red Pump Road. These property takes are narrow pieces of frontage. The impact to the residential properties will be minimal because the homes are set back 35-50 feet from the roadway. The impact to the commercial properties will also be minimal. The acquisition of this right-of-way will not effect the operation of these businesses except for the slight loss of available parking at two of the locations. Two parking spaces (out of twelve total spaces) would be lost at the 7-11 convenience store on Bynum Road. Thirty-two parking spaces (out of 226 total spaces) would be lost at the North Park Center located at the corner of MD 924 and North Road near the Harford County Detention Center. At present, there are no plans to replace these parking spaces.

Environmental Justice

It is the policy of the Maryland State Highway Administration to ensure compliance with the provisions of Title VI of the Civil Rights Act of 1964, and related civil rights laws and regulations which prohibit discrimination on the grounds of race, color, sex, national origin, age, religion, physical or mental handicap in all State Highway Administration program projects funded in whole or in part by the Federal Highway Administration. The State Highway Administration will not discriminate in highway planning, highway design, highway construction, the acquisition of right-of-way, or the provision of relocation advisory assistance. This policy has been incorporated into all levels of the highway planning process in order that proper consideration may be given to the social, economic and environmental effects of all highway projects. Alleged discriminatory actions should be addressed to the Office of Equal Opportunity of the Maryland State Highway Administration for investigation.

Based on the minimal impacts resulting from SHA's Selected Alternate, and the low percentages of low-income and minority populations in the study area, as reflected in the income and race data taken from the 1990 census, there is no evidence that low-income, minority, elderly, or handicapped populations will be disproportionately affected by the SHA Selected Alternate.

Neighborhoods and Communities

The US 1 Bel Air Bypass is an existing facility that traverses between established neighborhoods. The widening of the roadway will take place almost entirely within existing right-of-way. The right-of-way which is required from residential property in the study area will be strip right-of-way along the roadway and will not divide any neighborhoods. Therefore, no change in neighborhood cohesion will result. Adjacent communities will be affected, to some extent, by construction noise and fugitive dust and loss of some land within required right-of-way. The US 1 Bel Air Bypass does not currently have pedestrian and bicycle amenities and pedestrians and bicyclists are currently prohibited from using US 1. Therefore, no adverse effects on pedestrians or bicyclists are anticipated.

Traffic patterns of area residents will be changed by the SHA-Selected Alternate by introducing mainline medians. The addition of mainline median would not affect access on US 1 because there are no points of access along the mainline except for the interchanges at MD 24 and MD 24/924. Under the SHA-Selected Alternate, improvements along MD 24/924, which would result in a four-lane divided highway in the vicinity of the interchange, would change the traffic pattern in such a way that some vehicles may be required to execute U-turns to access points on the opposite side of the road. While there would be an initial adjustment to these changed traffic patterns, the long term benefits of improved traffic flow and reduced accident rates would outweigh any adverse impacts.

Parks and Recreational Facilities

No parks or recreational facilities will be directly affected by the SHA-Selected Alternate. Despite the proximity of the alignment to the Tollgate Landfill and other parklands south of the US 1/MD 24 interchange, all project work in this vicinity will occur within existing right-of-way. The MA and PA Heritage Trail will be constructed in such a way as to pass underneath of US 1. The trail will also parallel a portion of US 1 at the northern end of the study area and will cross under the roadway a second time. However, the second crossing occurs beyond the limits of the study area for this project.

Community Services and Facilities

Access to community facilities in the study area would be generally improved because the roadway capacity of the US 1 Bel Air Bypass would be increased and delay resulting from traffic congestion would be decreased. Access on MD 24/924 would also be generally improved because of increased capacity and decreased delay. However, the SHA-Selected Alternate introduces minor increases in travel distance because motorists are required to execute "U" turns at median breaks which are generally provided at every cross street or driveway into a major business establishment at a minimum spacing of 750 feet. The minor increase in travel distance would likely be offset by improvements to safety recognized by minimizing and controlling conflict points.

The positive impacts of the SHA-Selected Alternate on accessibility to services and facilities include improved levels of service, decreased congestion, new turning lanes and a general improvement in the traffic operations of the US 1 Bel Air Bypass and MD 24/924.

The SHA-Selected Alternate will not impede existing pedestrian mobility, and the use of a median will provide a refuge for crossing pedestrians. The Selected Alternate will also provide sidewalks along MD 24/924 to enhance pedestrian safety.

Access for Emergency Vehicles

Response time may increase with the SHA-Selected Alternate because it includes a median. However, this increase is expected to be offset by improved levels of service associated with dualization of US 1. The addition of lanes to increase the capacity of the roadway would allow traffic to flow more freely and provide more room for emergency vehicles to pass.

Local and Regional Businesses

The SHA-Selected Alternate will relieve traffic congestion and conflicts, thus improving access to businesses and services throughout the project area, particularly to the established and developing commercial areas along US 1. The relief provided by the SHA-Selected Alternate will allow improved access for local and connecting traffic transporting goods and services destined for Baltimore and Washington, or points north. Access to workplaces in and around the project area will also be improved.

The SHA-Selected Alternate provides relief to traffic congestion, improves mainline levels of service, addresses the growth needs of the County, and effects regional business activities in a positive way. The SHA-Selected Alternate will alleviate congestion on US 1 thereby reducing travel time to and from the study area business districts. They will also provide increased traffic capacity which will accommodate planned commercial growth.

Tax Loss

Because the SHA-Selected Alternate is located almost entirely within existing right-of-way and very little additional right-of-way is required, the reduction in property taxes paid to Harford County would be negligible.

Land Use

There are no anticipated changes in land use resulting from the SHA-Selected Alternate. The roadway widening would take place entirely within existing right-of-way, except for the acquisition of several strips

of new right-of-way in the vicinity of the intersection of US 1 and MD 24/924. As this project would be constructed in order to accommodate the already high peak-hour volumes of traffic along this segment of US 1 resulting from existing development in this area, no changes to existing land uses are anticipated.

Future land use plans are not expected to change as a direct result of this project. As this portion of US 1 is included within Harford County's Development Envelope, planned changes in land use may still occur in the vicinity of the project. These changes are expected to be consistent with the Harford County master plan and are not dependent upon this project.

The Smart Growth Areas Act went into effect in October, 1997. The intent of this legislation was to direct state funding for growth-related projects to areas designated by local jurisdictions as Priority Funding Areas (PFA's). PFA's are existing communities and other locally designated areas as determined by local jurisdictions in accordance with "smart growth" guidelines. The Act was intended to direct development to existing towns, neighborhoods, and business areas by directing State infrastructure improvements to those places. The project is contained within Harford County's Priority Funding Area.

3.3.2 Historic and Archaeological Resources

The SHA-Selected Alternate will have no impact on significant standing historic structures in this project's area of potential effect (APE). The proposed roadway widening will take place almost entirely within existing right-of-way. Where construction will occur outside of existing right-of-way, no National Register or National Register eligible resources will be impacted.

Phase I/II archaeological investigation recorded no National Register eligible archaeological sites in the project's APE, and therefore indicated that the Selected Alternate would not impact significant archaeological resources. Based on these findings, the SHA requested the concurrence of the Maryland Historical Trust (MHT) in a determination of no effect. The MHT concurred with this determination on January 3, 1997 and again on March 3, 1998.

Minor revisions to Alternate 4B, which ultimately became the SHA-Selected Alternate 4B Modified, occurred within areas previously surveyed for historic standing structures and archaeological resources with negative results. These revisions include the movement of the ramp from southbound US 1 to southbound MD 24 to the east and the re-design of the park-and-ride lot located at the US 1/MD 24/924 interchange.

3.3.3 Natural Environment

Geology, Topography, Soils, and Climate

The effects on geology, topography, soils, and climate of the study area by proposed improvements to US 1 would be minimal. Some cutting and filling would be required by the SHA-Selected Alternate to construct new road bed and/or widen the existing road way. The effects upon the geology and climate of the study area would be insubstantial. Several streams within the study area would require crossings involving culvert extensions or new span construction. Such crossings would alter the topography of the existing study area minimally and be typical of those normally encountered during highway operations. The majority of impacts to topography would occur in the vicinity of the southern US 1/MD 24 interchange. US 1 northbound will be constructed adjacent to existing US 1. For the most part, this area has already been graded. Substantial grading will be required for all ramps included in the US 1/MD 24 interchange improvements.

Prime farmland soils impacted by the project are within existing right-of-way and are therefore not lands protected by the Farmland Protection Policy Act of 1981.

Water Resources

Surface Water

Surface water impacts for this project would result from the bridging and culverting of streams. The Selected Alternate would require 18 stream crossings and have 1,540 linear feet of impact to Waters of the U.S. The SHA-Selected Alternate would also require the relocation of a roadside ditch just north of the MD 24/924 interchange.

Stream bottom habitat would be lost in construction and changes in velocity would occur with the straightening of channels, resulting in potential impacts on erosion and sedimentation rates. A Soil Erosion and Sedimentation Control Plan, approved by the Harford County Conservation District, will be implemented to reduce the possible effects. Any construction in waterways would comply with Best Management Practices specified in those permits. This project will also comply with the Maryland Department of the Environment's (MDE) Stormwater Management Guidelines.

Water quality may be affected by the introduction of additional roadway to the area. Water quality impacts from the project are related to the amount of impervious cover, and consequently the oils, grease, and road salt washing from the proposed roadway as well as the runoff temperature. In general, the effects of pollutant and temperature impacts are greatest in the headwaters of a stream, where the drainage area is small compared to the road surface area. This situation may already occur in the

tributaries to Heavenly Waters Run, since their drainage areas are both under 100 acres. The discharge of pollutants and the temperature increase of runoff can be controlled through the use of stormwater management practices. Stormwater Basins or special construction materials which promote infiltration have been very effective in providing a high level of pollutant removal and for controlling runoff temperature.

Groundwater

A conclusive study to evaluate groundwater recharge, availability (well yield), and water quality is being conducted for the SHA Selected Alternate. The report will be completed during the design phase of the project and submitted to MDE upon conclusion of the study. A final determination report will be submitted upon the conclusion of the study.

In general, construction activities may affect groundwater recharge by reducing the area available for infiltration and/or increasing run-off. However, construction of this project will have very little to no effect on the recharge of groundwater, because the additional impervious area to be created is small in comparison to the total watershed area contributing to recharge (approximately 17,830 acres).

The well yield, defined as the maximum pumping rate a well can sustain, can be affected by road grading. Static groundwater elevation data in the vicinity of the road varies from 1 foot to 60 feet (Nutter and Smigaj, 1975). A comparison of the proposed road inverts to the current topography suggests that there are several places where road cuts in excess of 5 feet will be made. This will be safe in most parts, however based on records and visual inspection of the site, at least 67 homes with private wells within 2,000 feet of the road could potentially be affected. Prior to final design of the project, these home wells would be field located, and the elevation of the water table relative to the road invert would be studied.

Groundwater quality can be impaired by contaminants in run-off from roadways. Pollutants can be channeled to groundwater by the same mechanisms that result in recharge. The entire road will be located in the Baltimore Gabbro of the Piedmont, which contains fractures. It is recommended that stormwater run-off management ponds be used to collect and treat runoff from the roadway to minimize groundwater pollution from roadway contamination.

Floodplains

The 100-year floodplains were delineated for the two major stream crossings using Federal Emergency Management Administration (FEMA) floodplain mapping. Streams documented with FEMA mapping include Winters Run, at the south end of the project, and Bynum Run, at the north. Approximately 1.5

acres of the 100-year floodplain associated with Winter's Run would be impacted by the SHA-Selected Alternate. There will be no impact to the 100-year floodplain associated with Bynum Run.

In accordance with Executive Order 11988-Floodplain Management; and with regard to the provisions in the Federal Aid Highway Program Manual (FHPM), a preliminary analysis of each encroachment was conducted to determine the effect on upstream water surface elevation and storage capacity.

Since the existing crossing of Winter's Run encroaches on the floodplain, the hydraulic characteristics of this waterway have already been impacted. The detailed design of the downstream crossing for this location will focus on minimizing additional encroachment to the floodplain and provide for hydraulic characteristics that are compatible with the existing structure. The hydraulic design for this crossing will be reviewed and approved by the Maryland Department of the Environment (MDE) prior to beginning construction. None of the floodplain encroachments are expected to result in risks to the beneficial values of the floodplain or provide direct or indirect support to further development within the floodplain. Therefore, the floodplain encroachments required by the SHA-Selected Alternate were determined to be non-significant. In accordance with Executive Order 11988, a floodplain finding is not required.

Hazardous Materials/Waste Sites

The SHA-Selected Alternate will require right-of-way acquisition from two service stations considered to be potential hazardous materials/waste sites. Approximately 2,090 square feet of strip right-of-way along MD 24 will be taken from the Shell Service Station located in the northeast corner of the intersection of MD 24 (Rock Spring Road) and Bynum Run Road. Approximately 4,880 square feet of right-of-way along MD 24 and 700 square feet along Bynum Run Road will be acquired from the Mobil Service Station located on the southeast corner of the same intersection. A field investigation was conducted to determine the locations of the underground storage tanks (UST's) at these sites and it was determined that the required acquisitions will not effect the UST's in any way. The SHA-Selected Alternate will not impact any additional potential hazardous materials/waste sites.

Ecology

Wetlands

All impacts to wetlands would occur within palustrine non-tidal areas directly adjacent to the existing roadway. Some minor impacts result from culvert extensions; however, most of the impacts are a result of extending fill slopes to accommodate the proposed improvements. The SHA-Selected Alternate would impact a total of 1.95 acres of wetlands.

Wetland Findings: Because this project proposes dualizing an existing highway rather than building a new highway, measures to avoid wetlands are not feasible. However, efforts to minimize wetland impacts have been made throughout the project planning process. These efforts include the reduction of the overall median width from the original 78-foot design to the current 34-foot design. In addition, a retaining wall was incorporated just north of Tollgate Road on the east side of the proposed highway and side slopes have been reduced to 2:1. Finally, two additional options were proposed by the U.S. Army Corps of Engineers (ACOE) that would minimize wetland impacts by further reducing the median width along the segment of US 1 from south of Winters Run to the MD 24 intersection to 22 feet. The first of these options included a 22-foot median while the second included a 22-foot, bifurcated median. The SHA-Selected Alternate incorporates all of these measures, including the 22-foot, bifurcated median from south of Winter's Run to the MD 24 interchange.

Wetland Mitigation: Coordination with the ACOE regarding wetland mitigation and stream restoration has identified two acceptable sites - one in the Winter's Run watershed, one in the Bynum Run watershed. The Rahl property has potential for creation of five acres of non-tidal wetlands and 2,650 linear feet of stream restoration. The Adams property offers the possibility of creating four acres of non-tidal wetlands and approximately 5,400 linear feet of headwater tributaries for stream restoration work. Both sites would provide ample opportunity for mitigation of wetland impacts and stream restoration associated with this project. Due to the uncertain funding status of the project, property owner participation cannot be guaranteed at present. In a letter dated October 16, 2000, the ACOE concurred with the conceptual mitigation plan.

Wildlife

The most substantial continuing impact on wildlife within the study area would be the removal and alteration of vegetative habitat. However, construction of the SHA-Selected Alternate may have the largest overall impact on wildlife. Impacts, though minor, would result in an increase of certain species that easily adapt to man-dominated habitat and a decrease of species that are sensitive to the activities of man. The SHA-Selected Alternate involves the construction of additional roadway and, therefore, would result in both construction impact as well as long-term impacts from the removal of vegetative habitat. The impacts associated with the removal of habitat are quantified in the following section, Terrestrial Habitat.

Terrestrial Habitat

Impacts to habitat types might involve permanent loss of habitat type, via conversion to man-dominated land-use, or temporary construction impacts. Lost habitat would be replaced by road surface and

associated permanently maintained landscaping. The SHA-Selected Alternate will result in the conversion of some forest, wetland, scrub-shrub, and old field habitat, to man dominated habitat. Table 12 shows the amount of each type of habitat affected by the SHA-Selected Alternate.

**TABLE 10
TERRESTRIAL HABITAT IMPACT AREA SUMMARY TABLE**

Habitat Type	Acres Impacted
Forest	16.30
Wetland	1.90
Scrub-Shrub	6.03
Old Field	1.42
Total	25.65

Source: State Highway Administration, 1997

Impacts to forested areas resulting from construction of the SHA-Selected Alternate will be mitigated in compliance with the Maryland Reforestation Act. The Act requires minimization of forest clearing, replacement of wooded areas removed at a 1:1 ratio, or contribution to the DNR reforestation fund if suitable mitigation cannot be developed. A mitigation plan will be developed during the design phase of the project, and coordinated with the State Forester.

Aquatic Habitat

Impacts to aquatic habitat will occur when streams in the study area are affected by the project. Erosion, sedimentation, loss of stream bottom, loss of stream length, and changes in water velocity and water temperature, could all cause a degradation of the macroinvertebrate and fish populations in the study area. The SHA-Selected Alternate would impact streams to some extent and, therefore potentially impact aquatic habitat as well. Stream bottom habitat would be lost in construction and changes in velocity would occur with the straightening of channels, resulting in potential impacts on erosion and sedimentation rates. A Soil Erosion and Sedimentation Control Plan, approved by the Harford County Conservation District, will be implemented to reduce the possible effects. Any construction in waterways would comply with Best Management Practices specified in those permits. This project will also comply with the Maryland Department of the Environment's (MDE) Stormwater Management Guidelines.

Rare, Threatened and Endangered Species

According to the USFWS there are no known threatened, endangered, or rare species presently inhabiting the study area. However, according to the USFWS, habitat suitable for the state and federally

listed threatened Bog turtle is present in certain wetlands within the project area. Wetlands 12C, 16, and 25 have a moderate potential to provide bog turtle habitat. In May and June of 1999 Bog Turtle surveys were conducted in these wetlands with negative results.

3.3.4 Noise Quality

Noise abatement criteria for various land uses have been established by the Federal Highway Administration (FHWA) in 23 CFR, Part 772. The noise abatement criteria for land uses occurring in this project study area, (Category B), is 67 dB(A) Leq (see Table 13). 2020 noise levels for the project area were predicted using the Federal Highway Administration traffic noise Prediction Model (FHWA-RD-77-108). The Stamina 2.0/Optima barrier Cost Reduction Procedure version of the model was used.

**TABLE 11
FHWA NOISE ABATEMENT CRITERIA**

Activity Category	Description of Activity Category	Leq(h)
A	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.	57 (Exterior)
B	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.	67 (Exterior)
C	Developed lands, properties, or activities not included in Categories A or B above.	72 (Exterior)
D	Undeveloped lands.	N/A
E	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals and auditoriums.	52 (Interior)

N/A = No standard for this Activity Category, therefore not applicable.

Source: Code of Federal Regulations, Title 23, Part 772.

According to the procedures described in 23 CFR, Part 772, noise impacts occur when predicted traffic noise levels for the design year approach or exceed the noise abatement criterion prescribed for a particular land use category, or when the predicted noise levels are substantially higher than the existing ambient noise levels. The Maryland SHA and FHWA define approach as 66 dB(A) and uses a 10 dB(A) increase to define a substantial increase. The noise analysis was completed in accordance with federal procedures and evaluated with State Highway Administration's Noise Policy dated May 11, 1998.

Under the current SHA Noise Policy, several factors are evaluated to determine whether noise abatement is feasible and reasonable.

In accordance with the SHA Noise Policy, feasibility deals with engineering, acoustical and physical considerations such as:

- Can a noise reduction of at least 3 dB(A) be achieved at the location(s) warranting abatement? The noise reduction goal for receptors with the highest levels (first row receivers) is 7 - 10 decibels.
- Will placement of a noise wall/barrier restrict access to vehicular or pedestrian travel?
- Will construction of a noise wall result in any utility impacts?
- Will construction of a noise wall have an impact upon existing drainage?
- Will impacts occur to Section 4(f) properties?
- Are there other non-highway noise sources in the area that would reduce the effectiveness of a noise barrier?

Reasonableness is based on a number of factors, including:

- Acceptability of proposed abatement to the impacted and benefited residences?
- A 3 dB(A) or greater change in design year build noise levels over design year no-build noise levels will result from the proposed highway improvements.
or
If the cumulative increase in design year build noise levels at noise sensitive receivers that existed when prior improvements were made is equal to or greater than 3 decibels, then noise abatement could be considered reasonable.
- Costs do not exceed \$50,000 per benefited residence. SHA will consider both the cost/residence for individual noise sensitive areas and the average cost/residence for the entire project in determining reasonableness. Noise sensitive areas with a cost/residence of less than \$100,000 would be included in the project cost averaging. If the average cost/residence for the project is less than \$50,000, sound barriers will be considered reasonable.
- The relative size and appearance (aesthetics) of the proposed noise barrier to the receptors protected.
- The control of new noise sensitive development adjacent to state highways in high noise zones at the local level.

-
- Special circumstances, such as historical significance and/or cultural value.

An effective barrier should, in general, extend in both directions to four times the distance between the receiver and the roadway (source). In addition, an effective barrier should provide a 7-10 dB(A) reduction in the noise level as a preliminary design goal for "first row" residences. However, any impacted noise receptor which will receive a 3 dB(A) or greater reduction is considered when determining the cost reasonableness of a barrier. SHA will also include all receptors that are not impacted but will receive a 5 dB(A) or greater reduction from a noise barrier.

Cost effectiveness is determined by dividing the total number of impacted receptors in a specified noise sensitive area that will receive a 3 dB(A) or greater reduction of noise levels and the non-impacted receptors receiving a 5 dB(A) or greater reduction, into the total cost of the noise mitigation. A total cost of \$16.54 per square foot is assumed to estimate total barrier cost. This cost figure is based upon current costs of panels, footings, drainage, landscaping, and overhead. The State Highway Administration has established \$50,000 per residence protected as being the maximum cost for a barrier to be considered reasonable.

Noise Prediction Methodology and Results

The procedure used to predict future noise levels in this study was the Noise Barrier Cost Reduction (BCR) Procedure, STAMINA 2.0 and OPTIMA (revised March, 1983). The BCR procedure is based upon the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108). The BCR traffic noise prediction model uses the number and type of vehicles on the planned roadway; their speeds; the physical characteristics of the road (curves, hills, depressed, elevated, etc.); receptor location and height; and, if applicable, barrier type, barrier ground elevation, and barrier-top elevation.

Maximum noise level generally occurs when traffic volume reaches Level-of-Service (LOS) C. LOS C volume, along with a vehicle speed of 50 MPH (which represented the average LOS C traffic flow condition on the US 1 Bel Air Bypass), was used for predicting the future noise levels. The noise prediction results are shown in Table 14.

**TABLE 12
SUMMARY OF NOISE IMPACT MODELING RESULTS**

Noise Sensitive Area	Noise Modeling Site	Existing Noise Level	Selected Alternate	Difference between Existing and Build Levels
A	1	60	65	5
B	2	57	61	4
C	3	63	66	3
	3A	59	60	1
D	4	64	73	9
	4D	64	76	12
	4F	63	69	6
	4H	60	69	9
	5	60	65	5
E	6	69	72	3
	8	68	72	4
	8A	64	69	5
	9	69	72	3
	11	66	70	4
F	7	63	70	7
	10	66	69	3
	10B	61	65	4
	12	79	79	0
G	13	67	70	3
	13E	66	68	2
	15	59	62	3
	15A	65	67	2
	15B	61	66	5
H	14	61	64	3

All values are in Leq (1-hour A-weighted equivalent noise level) in dB(A)

Impact Analysis and Feasibility of Noise Mitigation

Fifteen receptor sites represented the eight Noise Sensitive Areas (NSA's) that were identified by the SHA (see Figures 6A and 6B). The worst-case noise levels for the sensitive receptors adjacent to the proposed roadway improvements were analyzed to determine the noise impact. Detailed descriptions of the modeling results for each NSA are available in the *Technical Noise Analysis Report - US 1 Bypass: MD 147 to North of MD 24/924, Harford County*. A copy of this report can be obtained from the Maryland SHA. The following is a summary of those results:

N° B (MD 147) REVISED ALIGNMENT
SOUNDING / SEE 2:1 NEW 4:1 DGN

69 dB(A)
72 dB(A)

68 dB(A) 1997
72 dB(A) PREDICTED

69 dB(A) 1997
72 dB(A) PREDICTED

67 dB(A) 1997
70 dB(A) PREDICTED

63 dB(A) 1997
70 dB(A) PREDICTED

6

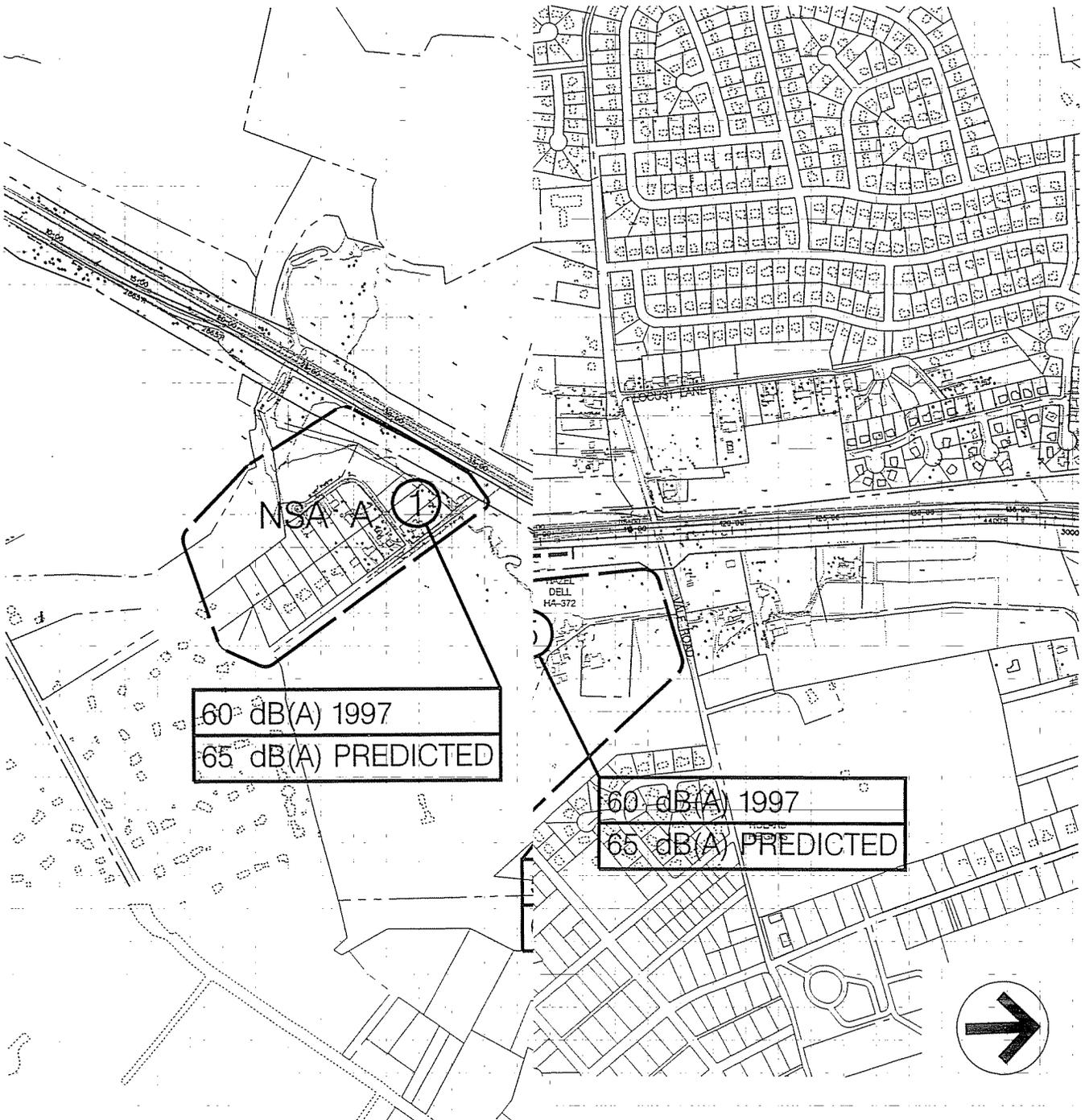


U.S. ROUTE 1 PROJECT PLANNING STUDY
FROM MD 147 TO NORTH OF MD 24 / 924

NOISE ABATEMENT SUMMARY
SELECTED ALTERNATE

FIGURE 6B

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION



J.S. ROUTE 1 PROJECT PLANNING STUDY
 FROM MD 147 TO NORTH OF MD 24 /924

NOISE ABATEMENT SUMMARY
 SELECTED ALTERNATE

FIGURE 6A

MARYLAND DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION

The eight NSA's were identified with the letters A -H. Noise impacts occurred at five of the eight NSAs including C, D, E, F, and G. At NSAs A, B, and H, noise levels were not sufficient to approach or exceed the FHWA NAC; nor were they sufficient to be considered a substantial increase as defined in the SHA noise policy. NSA D was the only area to incur a substantial increase (10 dB(A) or more) in noise levels. For the SHA-Selected Alternate, 7 of the 31 impacted residences would experience a substantial increase in the noise level.

The need for consideration of mitigation measures was identified based upon comparisons with the FHWA Noise Abatement Criteria and SHA guidelines. Evaluation methods for reducing noise impacts were warranted in those areas where noise levels from the roadway would not comply with the NAC, or where noise levels would substantially increase over existing ambient noise levels.

The most common type of designed mitigation is the construction of physical barriers, typically in the form of earth berms or noise walls, between the roadway (noise source) and the receiver locations. For this project, other types of noise mitigation, such as highway alignment selection and traffic management, were deemed inappropriate. Therefore, only an analysis of physical barriers was conducted, and due to the limited right-of-way along the corridor, the earth berm option was not considered feasible and was not analyzed. Noise abatement walls outside the right-of-way and/or outside the project limits were also not analyzed. All options for proposed walls were within the proposed right-of-way limits. Other factors such as safety, community aesthetics and cohesion, visual impact of the control measure, engineering constraints on height, and drainage considerations were also considered. A detailed description of the noise barrier analysis can be found in the *Technical Noise Analysis Report - US 1 Bypass: MD 147 to North of MD 24/924, Harford County*. The following is a summary of the results.

Noise barrier analysis was conducted for NSAs C, D, E, F, and G. Feasibility and reasonableness were determined according to specific criteria listed in the above mentioned technical noise report. These criteria are also shown for each NSA in Tables 15 through 18. Table 19 shows the number of residences that would benefit from these noise barriers.

**TABLE 13
NOISE ABATEMENT TABLE – NSA D**

Feasibility Criteria		Yes	No
1.	Noise levels can be reduced by 7 dBA or more at impacted receptors	X	
2.	Placement of a barrier will restrict pedestrian or vehicular access		X
3.	Construction of a barrier will cause safety or maintenance problems		X
4.	Noise barrier can be constructed given topography, drainage, utilities, etc.	X	
5.	Noise barrier will have significant adverse impact on Section 4(f) resource		X
6.	There are non-highway noise sources that would reduce barrier effectiveness		X
Reasonableness Criteria			
1.	Majority of impacted receptors will receive a 7 dBA or greater noise reduction	X	
2.	75% or more of impacted and benefited residents approve of the proposed noise abatement	N/A	
3.	A 3 dBA or greater change in design year build noise levels over design year no-build noise levels is expected to result from the proposed action, <i>or</i> the cumulative effects of highway improvements in the design year build noise levels at receptors that existed when prior improvements were made is equal to or greater than 3 dBA	X	
3a.	Noise levels equal or exceed 72 dBA at impacted receptors	X	
4.	Noise barriers will have significant negative visual impact at impacted receptors		X
5.	The cost of noise abatement is equal to or less than \$50,000 per residence, impacted and benefited	X	
6.	There are special circumstances, i.e., historical/cultural significance at this NSA		X

**TABLE 14
NOISE ABATEMENT TABLE – NSA E**

Feasibility Criteria		Yes	No
1.	Noise levels can be reduced by 7 dBA or more at impacted receptors	X	
2.	Placement of a barrier will restrict pedestrian or vehicular access		X
3.	Construction of a barrier will cause safety or maintenance problems		X
4.	Noise barrier can be constructed given topography, drainage, utilities, etc.	X	
5.	Noise barrier will have significant adverse impact on Section 4(f) resource		X
6.	There are non-highway noise sources that would reduce barrier effectiveness		X
Reasonableness Criteria			
1.	Majority of impacted receptors will receive a 7 dBA or greater noise reduction	X	
2.	75% or more of impacted and benefited residents approve of the proposed noise abatement	N/A	
3.	A 3 dBA or greater change in design year build noise levels over design year no-build noise levels is expected to result from the proposed action, <i>or</i> the cumulative effects of highway improvements in the design year build noise levels at receptors that existed when prior improvements were made is equal to or greater than 3 dBA	X	
3a.	Noise levels equal or exceed 72 dBA at impacted receptors	X	
4.	Noise barriers will have significant negative visual impact at impacted receptors		X
5.	The cost of noise abatement is equal to or less than \$50,000 per residence, impacted and benefited	X	
6.	There are special circumstances, i.e., historical/cultural significance at this NSA		X

**TABLE 15
NOISE ABATEMENT TABLE – NSA F**

Feasibility Criteria		Yes	No
1.	Noise levels can be reduced by 7 dBA or more at impacted receptors	X	
2.	Placement of a barrier will restrict pedestrian or vehicular access		X
3.	Construction of a barrier will cause safety or maintenance problems		X
4.	Noise barrier can be constructed given topography, drainage, utilities, etc.	X	
5.	Noise barrier will have significant adverse impact on Section 4(f) resource		X
6.	There are non-highway noise sources that would reduce barrier effectiveness		X
Reasonableness Criteria			
1.	Majority of impacted receptors will receive a 7 dBA or greater noise reduction	X	
2.	75% or more of impacted and benefited residents approve of the proposed noise abatement	N/A	
3.	A 3 dBA or greater change in design year build noise levels over design year no-build noise levels is expected to result from the proposed action, <u>or</u> the cumulative effects of highway improvements in the design year build noise levels at receptors that existed when prior improvements were made is equal to or greater than 3 dBA	X	
3a.	Noise levels equal or exceed 72 dBA at impacted receptors	X	
4.	Noise barriers will have significant negative visual impact at impacted receptors		X
5.	The cost of noise abatement is equal to or less than \$50,000 per residence, impacted and benefited		X*
6.	There are special circumstances, i.e., historical/cultural significance at this NSA		X

* This barrier is still considered to be reasonable however, because the average cost/residence is less than \$50,000.

**TABLE 16
NOISE ABATEMENT TABLE – NSA G**

Feasibility Criteria		Yes	No
1.	Noise levels can be reduced by 7 dBA or more at impacted receptors	X	
2.	Placement of a barrier will restrict pedestrian or vehicular access		X
3.	Construction of a barrier will cause safety or maintenance problems		X
4.	Noise barrier can be constructed given topography, drainage, utilities, etc.	X	
5.	Noise barrier will have significant adverse impact on Section 4(f) resource		X
6.	There are non-highway noise sources that would reduce barrier effectiveness		X
Reasonableness Criteria			
1.	Majority of impacted receptors will receive a 7 dBA or greater noise reduction	X	
2.	75% or more of impacted and benefited residents approve of the proposed noise abatement	N/A	
3.	A 3 dBA or greater change in design year build noise levels over design year no-build noise levels is expected to result from the proposed action, <u>or</u> the cumulative effects of highway improvements in the design year build noise levels at receptors that existed when prior improvements were made is equal to or greater than 3 dBA	X	
3a.	Noise levels equal or exceed 72 dBA at impacted receptors		X
4.	Noise barriers will have significant negative visual impact at impacted receptors		X
5.	The cost of noise abatement is equal to or less than \$50,000 per residence, impacted and benefited	X	
6.	There are special circumstances, i.e., historical/cultural significance at this NSA		X

**TABLE 17
SUMMARY OF RESIDENCES BENEFITTING FROM NOISE BARRIERS**

Noise Barrier Analyzed (By NSA)	Impacted Residences Receiving Reduction of 3 dB(A)	Non-Impacted Residences Receiving Reduction of 5 dB(A)	Total Residences Benefited
NSA C	0	1	1
NSA D	31	56	87
NSA E	71	78	149
NSA F	4	7	11
NSA G	40	33	73

Cost average is only to be applied to those NSA's for which the cost per residence falls between \$50,000 and \$100,000, such as NSA F. A description of each barrier is included below.

Within NSA C is a shelter for battered women, which has predicted noise levels that approach or exceed the NAC. An 800-foot barrier was modeled along the shoulder of the westbound lanes, and because of the distance (250 feet from the roadway) the insertion loss was found only to be a maximum of 5 dBA with a 20-foot high barrier. Raising the barrier's height would only provide a marginal increase in the insertion loss. However, since this barrier does not reduce noise levels by a goal of 7 to 10 dBA, this barrier is not feasible, and therefore not recommended for consideration.

For NSA D, a total of 31 receptors would be impacted. A barrier 3,430 feet long with an average height of 15.4 feet would provide a 7-10 dB(A) reduction at impacted first row residences. A total of 31 impacted residences will receive a minimum of 3 dB(A) reduction from this barrier. In addition, 56 other non-impacted residences would receive at least a 5 dB(A) noise reduction from this barrier. The total cost and cost-per-residence for this barrier are \$869,175 and \$9,900, respectively. This barrier would be reasonable and feasible, and will be considered further during the design phase of this project.

NSA E contains 71 impacted receptors comprised of 46 single-family homes and 25 units within multi-family structures. A barrier approximately 4,800 feet long with an average height of 17.8 feet would provide a 7-10 dB(A) reduction at impacted first row residences. A total of 71 impacted residences will receive a minimum of 3 dB(A) reduction from this barrier. In addition, 78 other non-impacted residences will receive at least a 5 dB(A) noise reduction from this barrier bringing the total number of benefited residences to 149. The total cost and cost-per-residence for this barrier are \$1,412,200 and \$9,480, respectively. A barrier for this alternate would be reasonable and feasible, and will be considered further during the design phase of this project.

NSA F contains 10 impacted residences, 7 of which front MD 24/924. A barrier 3,320 feet long with an average height of 19.6 feet would provide 7-10 dB(A) reduction at impacted residences. A total of 4

residences would receive a minimum 3 dB(A) reduction from this barrier. It would not be possible to provide a longer barrier that would possibly mitigate noise impacts to the remaining 6 impacted residences, because a longer barrier would cut off the residents' only access to MD 24/924. In addition, 7 other non-impacted residences would receive a 5 dB(A) noise reduction from this barrier. The total cost and cost-per-residence for this barrier are \$1,071,000 and \$97,400, respectively. However, this cost per residence falls within the \$50,000-\$100,000 criteria required for cost averaging. After averaging the cost per residence of the entire project with the \$97,400 cost per residence of NSA F, the average would be less than \$50,000. Therefore, this barrier would still be considered reasonable and feasible, and will be considered further during the design phase of this project.

NSA G contains a total of 40 impacted residences. A barrier 4,000 feet long with an average height of 21.9 feet would provide a 7-10 dB(A) reduction at impacted first row residences. A total of 40 impacted residences would receive a minimum of 3 dB(A) reduction from this barrier. In addition, there are 33 non-impacted residences which would receive a minimum 5 dB(A) noise reduction from this abatement structure. The total cost and cost-per-residence are \$1,442,100 and \$19,800, respectively. A barrier for this alternate would be reasonable and feasible, and will be considered further during the design phase of this project.

In summary, noise barriers are reasonable and feasible at NSA's D, E, F, and G and will be considered further during the design phase of this project.

Construction Noise

The major construction elements of this project are expected to be earth removal, hauling, grading, and paving. General construction noise impacts, such as temporary speech interference, usually limited to daylight hours (8:00 a.m. to 5:00 p.m.), differs from normal vehicular traffic noise, which is continuous throughout the daytime and nighttime hours. Effective control of highway construction noise can be achieved by separating several noisy operations over time, limiting the times of certain construction activities, using less noisy equipment, setting up temporary barriers around working areas, and community awareness.

3.3.5 Air Quality

Objective and Type of Analysis

This air quality analysis has been prepared in accordance with the U.S. Environmental Protection Agency (EPA), Federal Highway Administration (FHWA), and State Highway Administration (SHA)

guidelines. Carbon monoxide (CO) impacts were analyzed as the accepted indicator of vehicle-generated air pollution. The years of analysis were 2000 and 2020.

The EPA's CAL3QHC dispersion model was used to predict carbon monoxide (CO) concentrations at air quality sensitive receptors. These detailed analyses predict air quality impacts from carbon monoxide vehicular emissions for both the No-Build and build alternates for each analysis year. Modeled 1-hour and 8-hour average CO concentrations were added to background CO concentrations for comparison to the State and National Ambient Air Quality Standards (S/NAAQS).

The US 1 Bel Air Bypass project is located in Harford County, which is a severe ozone non-attainment area. However, the County is not a non-attainment area for carbon monoxide. Since the project is located in an ozone non-attainment area, conformity to the State Implementation Plans (SIPs) is determined through a regional air quality analysis performed on the Transportation Improvement Plan (TIP) and transportation plan. This project conforms to the SIP as it originates from a conforming TIP and transportation plan.

Construction Impacts

The construction phase of the proposed project has the potential to impact the local ambient air quality by generating fugitive dust through activities such as demolition and materials handling. SHA has addressed this possibility by establishing "Standard Specifications for Construction and Materials" which specifies procedures to be followed by contractors involved in site work.

The Air Management and Radiation Administration of the Maryland Department of the Environment was consulted to determine the adequacy of the "Specification" in terms of satisfying the requirements of the "Regulations Governing the Control of Air Pollution in the State of Maryland". The Air Management and Radiation Administration found the specifications to be consistent with the requirements of these regulations. Therefore, during the construction period, all appropriate measures (Code of Maryland Regulations 10.18.06.03 D) would be incorporated to minimize the impact of the proposed transportation improvements on the air quality of the area.

Results of Microscale Analysis

The results of the calculations of CO concentrations at each of the air quality receptor sites for the SHA- Selected Alternate for the year 2000 are shown on Table 20. The values shown consist of predicted CO concentrations attributable to traffic on various roadway links plus projected background levels. For the 1-hour case, maximum a.m. or p.m. concentrations are shown. A comparison of these values with the

S/NAAQS shows that no violations would occur for the Selected Alternate in 2000 or 2020 for the 1-hour or 8-hour concentrations of CO.

**TABLE 18
CARBON MONOXIDE (CO) CONCENTRATIONS (PPM) - 2000**

Receptor	2000		2020	
	1-Hr.	8-Hr.	1-Hr.	8-Hr.
AQ-1	5.8	2.9	5.8	2.9
AQ-2	6.3	3.1	6.4	3.1
AQ-3	6.0	2.9	6.0	2.9
AQ-4	6.6	3.3	6.6	3.3
AQ-5	6.3	3.2	6.3	3.2
AQ-6	6.2	3.0	6.4	3.2
AQ-7	6.1	3.0	6.1	3.0
AQ-8	5.7	2.8	5.6	2.8
AQ-9	6.0	2.9	6.1	3.0
AQ-10	6.0	2.9	6.1	3.0
AQ-11	6.5	3.1	6.5	3.2
AQ-12	6.3	3.1	6.4	3.2
AQ-13	6.6	3.2	6.9	3.3

Notes: One-hour CO concentrations include a 5.2 ppm background concentration. Worst case (a.m. or p.m.) shown. Eight-hour CO concentrations include a 2.6 ppm background concentration. The S/NAAQS for the one-hour average is 35.0 ppm. The S/NAAQS for the eight-hour average is 9.0 ppm.

PPM = Parts per million

3.3.6 Secondary and Cumulative Effects

A detailed analysis of the potential for secondary and cumulative effects that could result from this project is included in the Environmental Assessment. The results of this analysis are summarized below.

Secondary Impacts

Secondary impacts are those impacts that are further removed or occur later in time than the direct impacts of a project. For this project, secondary effects would likely be in the form of new or accelerated development caused by improved access to the area. However, the SHA-Selected Alternate will have full control of access and will not introduce any new access points, which indicates that adjacent land uses along the mainline of the new highway are not likely to experience new or accelerated development. Control of access limits secondary effects to the vicinity of the project's intersections. Since the SHA-Selected Alternate will not create new interchanges, development that occurs in the vicinity of the US 1 Bel Air Bypass will be concentrated near the existing MD 24 and MD 24/924 interchanges where it is already established.

Harford County's Development Envelope also inhibits secondary growth from resulting from this project. Because the US 1 Bel Air Bypass is located within the Development Envelope, Harford County already plans to focus development into this area. The 1996 land use plan calls for medium and low intensity uses to be located in the immediate vicinity of the US 1 Bel Air Bypass. There are currently four large residential developments in the area of this project which are expected to be built in the reasonably foreseeable future. Though this development will benefit from the improved highway, it is not dependent upon this project and, therefore, is not a secondary impact. This development is already planned, and will likely be built, despite the improved highway.

Cumulative Effects

Cumulative effects are defined as the total impact to individual resources resulting from the project in conjunction with any other past, present and reasonably foreseeable future projects. It is important to note that any project, not limited to transportation projects, that changes land use will contribute to cumulative effects on the resources in the area.

This project would contribute to some degree to the cumulative effects on nearly all resources within the SCEA boundary because of the amount of development occurring in this area. Though the amount of parkland would not likely decrease as development continues, less land would be available for new parks. Cumulative effects to communities and community facilities would likely be limited to such quality of life issues as increased traffic and greater demand for services provided by schools, libraries, police and other facilities. There would be less available groundwater due to decreased amounts of recharge and increased amounts of pumping from aquifers. Surface water and aquatic resources would suffer from temperature increases due to runoff from additional amounts of paved surfaces. The overall amount of wetlands, forest and wildlife habitat in the area would likely decrease due to the expansion of the built environment in this area. Erosion of soils, changes in floodplain storage capacity and reduction in the amount of habitat for rare, threatened and endangered species would likely be minimized by strict county, state and federal regulations protecting these resources.

3.4 Summary of Public Involvement

An Alternates Public Meeting was held on June 22, 1989 at Bel Air High School in Bel Air, Maryland, shortly after the US 1 Bel Air Bypass project was added to the project planning studies of US 1 from MD 152 to MD 147 and US 1 Business from US 1 to MD 24. One build alternate and a trumpet interchange at the intersection of MD 24 were presented. Improvements at the MD 924 interchange, although not yet developed, were also considered to be a component of the alternate.

This project was discussed at several Interagency Review Meetings. On July 21, 1993, the Purpose and Need was presented to representatives from the U.S. Army Corps of Engineers (ACOE), U.S. Environmental Protection Agency (EPA), and the Maryland Office of Planning (MOP). Concerns expressed by the agencies included: a.) reducing the cross section to an urban arterial or suburban type cross section to reduce wetland impacts; b.) the explanation for higher than state-wide average accident rate; and c.) whether or not MD 24 would be widened.

Alternates Retained for Detailed Study were presented to the agencies on February 21, 1996. By that time, and in response to citizen, agency, and study team comments following both the Alternates Public Meeting and an agency field review on November 17, 1995, the Bel Air Bypass project had been separated from the other segments of the US 1/US 1 Business study and the study team had developed additional preliminary alternates. In order to minimize environmental impacts associated with the 58-foot median and to remain consistent with the Hickory Bypass project (which meets this project north of the MD 24/924 interchange), a narrower, 34-foot median concept was developed. Alternate 2, as presented at the public meeting, was split into Alternates 2A and 2B with 58-foot and 34-foot median widths, respectively. Eight interchange options were developed for the MD 24 (relocated) interchange and two were developed for the MD 24/924 interchange. The agency concerns were reducing impact to wetlands and further reducing median width to minimize environmental impacts. Agencies were explained the constraints of bridge piers, needed shoulder widths, and steep grades necessary for bridge clearance, and were assured of further profile and alignment refinements to reduce wetland and parkland impacts. Other concerns included: a.) the park-and-ride lot, its capacity, potential relocation, and use by buses (MOP); b.) stream class, relocation, and impacts (U.S. Fish and Wildlife Service); c.) why the project is being designed as a freeway (ACOE); d.) what would be the impacts of a 22-foot median; and e.) why a shift of the road to the west rather than to the east could not be achieved.

Alternates Retained for Detailed Study were again presented to the agencies on May 21, 1997. Concerns regarded: a.) the retaining wall that would preclude the need for stream rechannelization and its proximity to the stream (ACOE); b.) the status and connection to the Hickory Bypass project (USF&W); c.) the permit package and the public notice; d.) the MA and PA Heritage Trail (DNR); e.) CMS study recommendations (MOP); f.) the park-and-ride conceptual plans and locations (ACOE); and g.) the constructability review of Highway Design.

At two subsequent Interagency Review Meetings the Secondary and Cumulative Effects Scoping Approach (March 18, 1998) and the Secondary and Cumulative Effects Analysis Methodologies (May 20, 1998) were presented. The ACOE requested copy of the Harford County Master Plan and stated that the ACOE would not put out a public notice for the entire project; agencies were assured the flexibility of the boundaries as they are somewhat dependent on the availability of data.

Meetings were also held with property owners and, in November of 1989, SHA met with the Bel Air Acres Community Association.

A Design/Location Public Hearing was held on March 24, 1999 at which the No-Build Alternate, the Mainline Build Alternate, three US 1/MD 24 interchange alternates, and two US 1 MD 24/924 interchanges options were presented. General concerns included noise levels, fencing and landscaping, and the provision of bicycle paths.

A Project Review and Alternate Selection Meeting was held with the SHA Administrator on Tuesday, February 15, 2000. The Administrator, Mr. Parker Williams, concurred with the recommendation to select Alternate 4B and instructed the planning team to include the bifurcation option with the SHA-Selected Alternate to further minimize impacts to wetlands. In conjunction with Alternate 4B, the Administrator selected Landscape Option 1 and the No-Build bicycle options. Fencing will be implemented in accordance with the controlled access facility criteria. Fence location will be determined during the Final Design-Phase of the project.

On March 15, 2000, the planning team on the Bel Air Bypass study gave a presentation to the agencies highlighting SHA's Selected Alternate 4B. The US Army Corps of Engineers (ACOE) asked that the planning team look into reducing impacts to the stream located near Park-and-Ride Option B by possibly relocating the Park-and-Ride lot farther north (to the other side of the stream). Following that presentation, the Park-and-ride lot was redesigned. The new lot configuration, included as part of Option B Modified, reduced impacts to the stream by 250 feet. The ACOE concurred with the SHA-Selected Alternate 4B-Modified in a letter dated October 16, 2000.

The Maryland Historical Trust (MHT) concurred with a determination of no effect on January 3, 1997 (See following correspondence of November 8, 1996.). This was reconfirmed on March 3, 1998 (See correspondence of February 20, 1998.) after a point of clarification regarding strip right-of-way acquisition at the Otho Scott house, HA-26, which was determined not eligible for the National Register by MHT.

**4.0 Public Hearing
Comments**

4.0 PUBLIC HEARING COMMENTS

A Location/Design Public Hearing for the US 1 Bel Air Bypass was held on March 24, 1999 at 7:00 p.m. at Bel Air High School in Harford County, 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.

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 N. Calvert Street, Baltimore, Maryland 21202. Written comments received subsequent to the public hearing are discussed in the correspondence section of this document.

1. Ms. Germaine Vadas:

Ms. Vadas was concerned that her property was not provided with a noise barrier. She inquired about trees adjacent to her property that were cut down as part of the District #5 special project to widen the Bel Air Bypass to four lanes from the US 1/MD 24 intersection to the US 1/MD 24/924 interchange. Ms. Vadas indicated that the state planted trees to replace those that were cut down after she complained. Ms. Vadas requested fencing to be put up to insure that children do not stray into the highway. Ms. Vadas had questions regarding the accuracy of wetland impacts as identified in the environmental document, and inquired about water runoff from the proposed widening. Ms. Vadas requested that accident statistics be compiled to reflect the benefits gained from the District 4 project.

SHA Response: The projected noise levels for the design year (2020) will approach or exceed the Federal Highway Administration (FHWA) Noise Abatement Criteria (66 dBA) at 3 of 8 noise sensitive areas (NSAs) under the no-build alternate and at 5 of 8 NSAs under the build alternates. Noise walls at these 5 NSAs will be considered further in the design phase of the project. The standing committee on highway traffic noise will make a final determination on the feasibility and reasonableness of noise barriers. The State and National Ambient Air Quality Standards would not be exceeded under the SHA-Selected Alternate.

The areas that are delineated for the selected landscape concept are located on the basis of the need for screening from either the US 1 or the areas where future noise walls are to be installed. All landscaping is proposed outside of the US 1 Bel Air Bypass limits of construction. It is anticipated that the landscape screening will provide aesthetic qualities in addition to creating a visual buffer from traffic on US 1.

Fencing will be implemented in accordance with the controlled access facility criteria. Fence locations will be determined during the design phase.

The accuracy of the wetland boundary delineations and extent of proposed impacts reflected in the *Environmental Assessment* and *FONSI* were reviewed and concurred upon by the agencies with jurisdiction and permitting authority over these resources, including the ACOE, DNR, and MDE. Also, a stormwater management plan will be implemented to contain any runoff generated by the proposed widening.

There were 103 police-reported accidents between January 1995 and September 1998 on US 1 within the study limits. This resulted in a rate of 88 accidents per 100 million vehicle miles of travel, which is statistically significantly higher than the statewide average rate of 49 accidents per 100 million vehicle miles of travel for similar roadways. Angle, rear end, and fixed object collisions are statistically significantly higher than the statewide average rates. An updated assessment of accident statistics, incorporating data from the recent District 4 widening project, will be used to reevaluate safety conditions on the study portion of the US 1 Bel Air Bypass.

2. Mr. Bob Moore:

Mr. Moore urged the State Highway Administration to make provisions for bicyclists along the bypass.

SHA Response: The planning team reviewed several options to provide a bicycle route that ties the southern end of the Bel Air Bypass at MD 147 and the northern end at MD 23 together with the MA and PA Heritage trail. Due to environmental impacts, high cost, and lack of compatibility between the bicycle and equestrian uses of the MA and PA Heritage Trail, it was determined that construction of a separate or combined use path was not reasonable. The planning team recommended the No-Build bicycle option, which was ultimately selected based upon the limited number of cyclists presently using the existing facility. A concurrent decision was made by SHA's Traffic and Safety Division to allow cyclists to use the shoulder of the proposed dualized bypass. The SHA Selected Alternate will, however, include the construction of a bike path connection from the existing MA and PA Heritage Trail tunnel at MD 24 to Boulton Street. Methods of bicycle crossing and signing at interchange ramps will be developed in the Final Design Phase of the project.

3. Mr. Michael Growey:

Mr. Growey was concerned about the noise and visual impacts associated with the proposed build alternates. Mr. Growey would like the state to plant evergreen trees that would not shed their leaves in the winter and lose the ability to bar noise from the highway.

SHA Response: The projected noise levels for the design year (2020) will approach or exceed the Federal Highway Administration (FHWA) Noise Abatement Criteria (66 dBA) at 3 of 8 noise sensitive areas (NSAs) under the no-build alternate and at 5 of 8 NSAs under the build alternates. Noise walls at these 5 NSAs will be considered further in the design phase of the project.

The areas that are delineated for the selected landscape concept are selected on the basis of the need for screening and are located where future noise walls are warranted. All landscaping is proposed outside of the US 1 Bel Air Bypass limits of construction. It is anticipated that the landscape screening will provide aesthetic qualities in addition to creating a visual buffer from traffic on the bypass.

Suggested plantings include a mix of evergreen trees with some deciduous trees randomly interspersed into the scheme as well as a mix of evergreen and deciduous shrubs. The use of shrubs is only suggested in those areas that would be visible to passing traffic along the bypass. The shrub plantings are intended to enhance the quality of the area and create visual interest through the use of native materials.

5.0 Correspondence

**A. Written Comments Received Subsequent to the Combined Location/Design
Public Hearing and Responses:**

From: SHA Administrator
To: "Kjspoer@aol.com"@MDSHAHQ.GWIA
Date: Thu, Mar 9, 2000 10:34 AM
Subject: Re: Bel Air and Hickory Bypasses

Dear Mr. Spoerl:

Thank you for your email message.

I am forwarding your message to Mr. Neil Pedersen, our Director of Planning and Preliminary Engineering. He will see that the proper person gets back to you directly concerning the Bel Air Bypass. If you wish to speak with him in the meantime, please feel free to call him at 410.545.0411 or, toll free within Maryland, at 1.888.204.4828.

For questions concerning the Hickory Bypass, you will wish to contact Mr. Dave Malkowski, our District Engineer for that area (District 4). I have also forwarded your email to his office. In the meantime, please feel free to call him at 410.321.2810 or, toll free within Maryland, at 1.800.962.3077.

Sincerely,

Ethel Marks
Maryland State Highway Administration
Administrator's Office

>>> <Kjspoer@aol.com> 03/07 9:22 PM >>>

Hello,

I would like to find out more information about the proposed widening of the Bel Air Bypass and the continuing construction of the Hickory Bypass. I understand this is a SHA project. Who may I contact at the SHA preferably via phone or e-mail?

Thank you.

Ken Spoerl
414 Birchwood Manor Lane
Bel Air, Maryland 21014
kjspoer@aol.com

CC: DAVID MALKOWSKI; STEPHANIE COATES

From: MONTY RAHMAN
To: internet:<kjspoerl@aol.com>
Date: Thu, Mar 9, 2000 3:35 PM
Subject: Bel Air Bypass

Dear Mr. Spoerl:

Mr. Neil Pedersen, Director of the Office of Planning and Preliminary Engineering at the State Highway Administration, asked that I contact you regarding your concerns on the Bel Air Bypass.

My name is Monty Rahman, I work with the Project Planning Division and am on the planning team for this project. Please feel free to contact me at 1.800.548.5026 at your convenience to discuss your concerns. Thanks.

Monty Rahman

CC: CYNTHIA SIMPSON; NEIL PEDERSEN



Maryland Department of Transportation
State Highway Administration

Parris N. Glendening
Governor
John D. Porcari
Secretary
Parker F. Williams
Administrator

March 11, 1999

Mr. James E. Sauers
1913 Harford Road
Benson MD 21018

Dear Mr. Sauers:

Thank you for your interest in our project planning study to identify transportation network and safety improvements to the US 1 Bel Air Bypass.

Attached is a copy of the Location/Design Public Hearing brochure scheduled for March 24 at the Bel Air High School. I have added your name to the project mailing list so that you will be notified of future project developments and opportunities for involvement.

Thank you again for your continued interest in our project planning activities.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Office of Planning and
Preliminary Engineering

By: Monty Rahman
Monty Rahman
Project Manager
Project Planning Division

cc: Ms. Anne Elrays
Mr. Monty Rahman
Mr. Charlie Watkins

My telephone number is _____

Maryland Relay Service for Impaired Hearing or Speech
1-800-735-2258 Statewide Toll Free

Mailing Address: P.O. Box 717 • Baltimore, MD 21203-0717

STATE HIGHWAY ADMINISTRATION
QUESTIONS AND/OR COMMENTS

Project # HA888B12

Public Location Design Hearing

US 1, Bel Air Bypass

March 24, 1999

Bel Air High School

NAME ARTHUR V. CAMPBELL DATE March 10, 1999

ADDRESS 1357 ST. FRANCIS RD

CITY/TOWN BEL AIR STATE MD ZIP CODE 21014

PLEASE
PRINT

I/We wish to comment or inquire about the following aspects of this project:

I live in an end-of-row townhouse along the route 24 to rte 1 bypass-entrance, which was recently widened. I am particularly anxious to preserve the rows of pine trees which protect the Marywood townhouses from the noise of the bypass.

I think the Option A would keep the park and ride facility and attendant noises further away from the residential area of the Marywood townhouses.

It is hard to tell from the maps just how our by-pass entrance would be affected by any changes. I would like to know where the less than one acre of additional property in vicinity of Md24/924 interchange which would affect three residential and 6 commercial properties is located and if it would come near the property edge of the Marywood townhouses or their protective pine trees.

Please add my/our name(s) to the Mailing List.

Please delete my/our 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.



Maryland Department of Transportation
State Highway Administration

Parris N. Glendening
Governor

John D. Porcari
Secretary

Parker F. Williams
Administrator

April 16, 1999

Mr. Arthur V. Campbell
1357 St. Francis Road
Bel Air MD 21014

Dear Mr. Campbell:

Thank you for your comments regarding the US 1-Bel Air Bypass project planning study. Your comments regarding Option A have been noted and will be considered during the decision making process.

All required Right-of-Way will be along MD 924/24 and Bynum Road. The Right-of-Way required is linear due to adding sidewalks along MD 924/24 and due to widening along Bynum Road near the intersection. This intersection does not come near the Marywood Townhomes and the rows of pine trees will not be affected.

The noise associated with both options for the Park and Ride lot will be generated by accelerating vehicles leaving the facility. The distances of the accelerating vehicles to the closest residence for Option A will range from 100 to 400 feet, while for Option B, it will be from 100 to 300 feet.

The State Highway Administration (SHA) makes every effort to preserve existing vegetation while constructing a facility. In areas where it is not feasible to leave existing vegetation in place, the Administration works with adjacent property owners to provide landscape planting that provide screening and highway beautification. SHA's Landscape Architecture Division will participate in the design team to develop a planting plan for the construction project.

As requested, your name has been added to the US 1-Bel Air Bypass Project Planning Study mailing list. If you have any questions, please feel free to contact the Project Manager, Monty Rahman at 1-800-548-5026.

Very truly yours,

Louis H. Ege, Jr.
Deputy Director
Office of Planning and
Preliminary Engineering

By:

Alazar Feleke
Project Engineer
Project Planning Division

My telephone number is _____

Maryland Relay Service for Impaired Hearing or Speech
1-800-735-2258 Statewide Toll Free

Mailing Address: P.O. Box 717 • Baltimore, MD 21203-0717
Street Address: 707 North Calvert Street • Baltimore, Maryland 21202

Mr. Arthur V. Campbell :

Page Two :

bcc: Mr. Jason Groth, Environmental Manager, State Highway Administration :
Mr. Neil Pedersen, Director, State Highway Administration | :
Mr. Monty Rahman, Project Manager, State Highway Administration : :
Mr. Charles Watkins, District Engineer, State Highway Administration | :
Mr. Joseph Vervier, Environmental Analyst, State Highway Administration :



Maryland Department of Transportation
State Highway Administration

Parris N. Glendening
Governor
John D. Porcari
Secretary
Parker F. Williams
Administrator

April 1, 1999

Mr. Jim Barton
1329 Deer Creek Church Rd
Forest Hill MD 21050

Dear Mr. Barton:

Thank you for your participation in the recent Location Design Public Hearing for the US 1 Bel Air Bypass Project. Your comments and suggestions are invaluable for the success of the project. We always welcome your participation in these meetings. Enclosed you will find a map of the Hickory Bypass project that you requested.

Thank you again for your interest in the US 1 projects. If you have any questions concerning the Hickory Bypass, please feel free to contact the project manager, Sharon Yohn at 410-545-8780. Questions regarding the Bel Air Bypass project should be directed to Mr. Monty Rahman. Mr. Rahman may be reached at 410-545-8524.

Sincerely,

Shiva K. Shrestha
Assistant Regional Planner
Regional and Intermodal
Planning Division

Enclosure

cc: ✓ Mr. Monty Rahman, Project Manager, State Highway Administration
Ms. Sharon Yohn, Project Manager, State Highway Administration

My telephone number is _____

Maryland Relay Service for Impaired Hearing or Speech
1-800-735-2258 Statewide Toll Free

Mailing Address: P.O. Box 717 • Baltimore, MD 21203-0717
Street Address: 707 North Calvert Street • Baltimore, Maryland 21202

QUESTIONS AND/OR COMMENTS

Project # HA888B12
Public Location Design Hearing
US 1, Bel Air Bypass

March 24, 1999
Bel Air High School

PLEASE
PRINT

NAME William H. Baker

DATE 4-5-99

ADDRESS 234 Vele Road

CITY/TOWN Bel Air

STATE MD

ZIP CODE 21014

I/We wish to comment or inquire about the following aspects of this project:

1.) This project shows the Bel Air Bypass from Rt 147 to 924 as a 6 lane road - a sep. lane highway with a large median strip is not in the interest of traffic safety. Each end of this proposed approximately 3.5 mile bypass road "begins" as a 4 lane road - the Route 1 corridor will only be 4 lanes with perhaps a turn lane (5th lane). Creating such a massive road way would be outrageous expensive. The median should be a sound wall and the vegetation best on the sides - the speed should not exceed 50mph and perhaps could be lowered to 45 in the interest of safety.

Please add my/our name(s) to the Mailing List

Please delete my/our 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

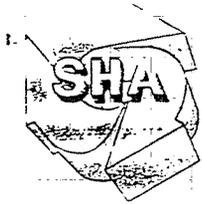
- 2.) The sound walls that will need to be built should be done at the time of any widening. Also it is of utmost importance to know what traffic noise model has been used to predict noise levels - the new TNM released in March of '98 or the Stamina model -
- 3.) The sound wall should also be constructed in locations to protect all residents - not just some. A wall on one side only and one that starts and stops on the other side and leaves an opening will allow the sound to
e.g. wall
in wall ^{would} -
"escape into" that space - causing great distress to any and all residents in the unprotected area.
- 4.) Very careful consideration must be given to the hydrology of the area. Creating water problems in this area will not take much effort - It is not called Water - Rock spring - Fragtown for nothing!
- 5.) Where any vegetation or soil is disturbed, land rehabilitation must be given to

replacement to make sure that the
air quality is livable for humans, plants
and animals.

6. In summary, not only can you
take into account how to move traffic -
you must do it safely - you must preserve
the wetlands, provide for & study water
quality - erosion control - noise and
air quality in addition to the
socioeconomic and cultural effects
on the residents. Highways are not the
end all and be all of existence!

7. Has there been any historical or
archeological studies done of these areas.
Kinters Run is a main water tributary.
Did Indian tribes reside in the area?
Were there early settlers here?
These various questions are of unique
importance to County history.

Much work needs to be done - not just
some wonderful road drawing and
the SHA telling us we need this -
maybe - however maybe not your
realities -



Maryland Department of Transportation
State Highway Administration

Parris N. Glendening
Governor
John D. Porcari
Secretary
Parker F. Williams
Administrator

April 20, 1999

Ms. Germaine M. Vadas
234 Vale Road
Bel Air MD 21014

Dear Ms. Vadas:

Thank you very much for completing the feedback forms and your detailed letter regarding the US1 Bel Air Bypass Location / Design Public Hearing. Your comments will be entered into the project record and will be considered by the team in the decision making process. At this time, no decision has been made as to which alternate will be selected for location and design approval. Further, no funding has been made available for final design, right-of-way acquisition, or construction of this project.

On the "Questions/Comments" form, you stated that you did not favor a six-lane road (3 lanes in each direction) with a wide median for safety reasons and because each end of the bypass leads into four-lane roads. I would like to clarify that the build alternate proposes only a four-lane road except in the area between MD 24 (relocated) and MD 24/924 (Rock Springs Road). In this section, an auxiliary lane is added in each direction for the entering and exiting of MD 24 traffic. Our traffic analysis indicates that this is the appropriate typical section to ensure safe and efficient travel on this highway through 2025.

The median size has also been reduced from the original plans. When the Bel Air Bypass was built in the early 1960's, the current roadway was envisioned as the southbound lanes of an ultimate freeway with a 78-foot median. Our current plans have reduced that median width in the interest of environmental protection. The current plans reflect a median width that is only 34 feet at most points. Minor adjustments have been made for wetland preservation and to avoid bridge piers at Vale Road. The median at Vale Road is 38 feet wide, a full 40 feet narrower than originally planned. Median width reductions for environmental preservation are a result of our continuing coordination with federal and state agencies. Our team has agreed that the use of "Jersey"-type barriers is not consistent with the rural nature of the area and would not reduce speeds.

My telephone number is _____

Maryland Relay Service for Impaired Hearing or Speech
1-800-735-2258 Statewide Toll Free

Mailing Address: P.O. Box 717 • Baltimore, MD 21203-0717
Street Address: 707 North Calvert Street • Baltimore, Maryland 21202

While it is possible that actual vehicle speeds may increase on the Bel Air Bypass once construction is complete, this is not likely to decrease safety. In fact, modern divided highways generally have a better safety record than undivided roadways. I assure you that public safety is of utmost concern to the State Highway Administration.

The procedure used to predict future noise levels in this study was the Noise Barrier Cost Reduction (BCR) Procedure, STAMINA 2.0 and OPTIMA. The BCR procedure is based upon the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA-RD-77-108). The BCR traffic noise prediction model uses the number and type of vehicles on the planned roadway; their speeds; the physical characteristics of the road; receptor location and height; and if applicable, barrier type, barrier ground elevation, and barrier top elevation. I have enclosed a copy of our sound barrier guide and recommend that you review the Environmental Assessment for further technical information about the noise analysis. The Environmental Assessment (EA) is available at the Bel Air Branch of the Harford County Public Library located at 100 Pennsylvania Avenue in Bel Air.

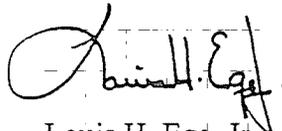
Once the project is funded for engineering/final design, detailed environmental design and hydrology recommendations are determined. Wetland, soil, tree, vegetation and landscaping replacements and additions are incorporated into the construction plans during this phase. The project planning team has representatives from State Highway Administration's Office of Highway Development and Office of Environmental Design. They have been providing guidance and comments throughout the planning process.

Historical and archaeological surveys have been undertaken for this project. No historic standing structures listed on or eligible for listing on the National Register of Historic Places are within the area of potential effect for project alternates. The Maryland Historical Trust concurred with this determination on January 3, 1997. Archaeological surveys and an evaluation of previously recorded archaeological sites were undertaken in 1996. This archaeological survey for the area of potential effect recorded two additional cultural resources, a lithic scatter and an isolated find. The report concluded that none of the archaeological resources are eligible for the National Register of Historic Places, and no further archaeological work is warranted. In July of 1997, the project was reassessed for archaeology based on design changes made subsequent to the initial survey. No previously recorded archaeological sites are located within the area of additional proposed construction. The re-assessment indicated that the project as modified would have no effect on significant archaeological resources. The Maryland Historical Trust concurred with this determination on March 30, 1998. Again, I encourage you to review the EA for more environmental impact information.

On the "How Are We Doing?" form, your responses reflect a disappointment with the brochure and public hearing in general. I am concerned that you found the information difficult to understand and not helpful in answering your questions. This was intended to allow some extra time before the hearing to discuss your questions and concerns with team members directly and personally. I hope that you had an opportunity to discuss the project with team members and voice your concerns. I also hope that this letter has helped to answer your questions.

If you have any further questions or comments, please feel free to contact the project manager, Mr. Monty Rahman or the environmental manager, Mr. Jason Groth, at 1-800-548-5026. We are certainly interested in resolving your concerns.

Very truly yours,



Louis H. Ege, Jr.
Deputy Director
Office of Planning and
Preliminary Engineering

Enclosure

Ms. Germaine M. Vadas

Page Four

bcc: Mr. Charie Adams
Mr. Greg Cohen
Mr. Robert Douglass
Mr. Alazar Feleke
Mr. Jason Groth
Mr. Neil Pedersen
Mr. Monty Rahman



Maryland Department of Transportation
State Highway Administration

Parris N. Glendening
Governor

John D. Porcari
Secretary

Parker F. Williams
Administrator

April 26, 1999

Mr. Richard B. Talkin, P.A.
Attorney at Law
Suite 301
Quarry Park Place
9175 Guilford Road
Columbia MD 21046

Dear Mr. Talkin: Dick

Thank you for your recent letter on behalf of C-Mart regarding proposed road improvements on MD 24 in Harford County. Your interest in our program is appreciated.

The March 24 public hearing that you referred to was for the Bel Air Bypass improvements only. That is, those improvements on US 1 from MD 147 to north of MD 924, including the MD 24/MD 924 interchange. Mapping from a 1998 feasibility study was also displayed at the public hearing showing proposed improvements to MD 24, from Red Pump/Bynum Road to MD 23. The purpose of the feasibility study was to determine issues that would preclude the future widening of this segment of MD 24. The results of the study indicated that the widening was feasible.

Improvements to this segment of MD 24 are not funded for project planning, design or construction. Note that if this portion of MD 24 were to be funded for project planning, several alternatives would be developed, not necessarily the improvements shown in the feasibility study. Because the proposed widening of MD 24 is not funded for planning, it is premature to begin discussions on specific improvements that may or may not affect the C-Mart property since they are not known. Your letter and objections to a median in the vicinity of your client's property will be kept on file for consideration if planning for improvements to this segment of MD 24 is funded.

Again, thank you for your letter. If you have any questions, please feel free to contact me or Mary Deitz, our Regional Planner for Harford County. Mary can be reached at 410-545-5677.

Very truly yours,

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

My telephone number is 410-545-0411/888-204-4828

Maryland Relay Service for Impaired Hearing or Speech
1-800-735-2258 Statewide Toll Free

Mailing Address: P.O. Box 717 • Baltimore, MD 21203-0717
Street Address: 707 North Calvert Street • Baltimore, Maryland 21202

Mr. Richard B. Talkin, P.A.

Page Three

bcc: Mr. David J. Malkowski, District Engineer, State Highway Administration
Mr. Monty Rahman, Project Manager, State Highway Administration ✓
Mr. Mark Redmond, Area Engineer, Engineering Access Permits Division, State Highway Administration



CHESAPEAKE BAY FOUNDATION

Resource Protection
Environmental Education

VIA FAX: 410-962-6024

April 7, 1999

Steve Elinsky
US Army Corps Baltimore District
CENAB - OP - RX
PO 1715
Baltimore, MD 21203-1715

RE: Extension of comment period to April 16 for US 1 Bel Air Bypass

Dear Mr. Elinsky:

Per our conversation, I am requesting an extension for submission of comments on the US 1 Bel Air Bypass from MD 147 to North of MD 924 project. I request that you accept our comments related to the Section 404 permit for this project by April 16, 1999.

Thank you for your consideration.

Sincerely,

Cheryl Cort
Manger, Urban and Regional Projects
(on behalf of the Baltimore Regional Partnership)

162 Prince George Street
Annapolis, Maryland 21401
410.268.8816, fax 410.268.6687

**BALTIMORE
REGIONAL
PARTNERSHIP**

April 16, 1999 VIA FAX

Mr. Richard Spencer
US Army Corps of Engineers
Attn: CENAB-OP-RX
PO Box 1715
Baltimore, MD 21203-1715

Re: Comments regarding US 1 Bel Air Bypass from MD 147 to North of MD 924 project

Dear Mr. Spencer:

Please accept the following written comments on the proposed project for the US 1 Bel Air Bypass as described in the "Location/Design Public Hearing" brochure and the "Environmental Assessment, Project No. HA888B12". We thank you for extending the comment period.

I. Overview

As stated in our earlier comments on the Bel Air Bypass project as proposed in the Baltimore Regional Transportation Plan,¹ we recommend that this proposed project be rejected. We oppose all build alternatives because they: (1) will unnecessarily harm valuable aquatic resources; (2) do not address the community's transportation needs; (3) violate Maryland's Smart Growth laws and policies, and (4) fail to meet minimum justification under federal regulations. The current two-lane Bypass has excellent access control and does a good job of diverting through traffic from the town of Bel Air. Widening the Bypass to four lanes would simply make it a purveyor of new sprawl development to the northern and eastern portions of Harford County. The Bypass, coupled with other major road projects, such as the Hickory Bypass, appears to serve the purpose of avoiding established communities in order to conduct more growth to rural areas outside the Bel Air Priority Funding Area (PFA) and the County's Development Envelope.

① No attempt is made in the Environmental Assessment (EA) to assess the direct, secondary and cumulative environmental impacts of this project. The deleterious effects on valuable wetlands, streams and other environmental resources resulting from all the build alternatives are unacceptable because the transportation goals of the project will not be met by the proposed action.

¹ Letter to Mr. John G. Gary, Jr., Chairman, Baltimore Metropolitan Council and Mr. Jon Arason, Chairman, Baltimore Metropolitan Planning Organization, "RE: Comments on '2020, Draft Baltimore Regional Transportation Plan'" by Mary Matheny, Citizens Planning and Housing Association; Michael Replogle, Environmental Defense Fund; and Lee Epstein, Chesapeake Bay Foundation. June 16, 1998.

Thus, the environmental impacts are unnecessary and wholly avoidable. For the reasons described below, we ask that the permit for proposed impacts to wetlands, streams and other natural resources regulated by Section 404 of the Clean Water Act be denied.

② **II. Environmental Impacts Assessment**

The project proposes to further degrade valuable wetlands adjacent to Winters Run and Route 1 that were once high quality wetlands.² Records of the federally-protected Bog Turtle occurring in the area and potential Bog Turtle habitat identified by Maryland Department of Natural Resources demonstrate the quality of these wetlands. This wetlands system cannot afford further disturbance and destruction, especially if habitat for federally-protected Bog Turtle exists.

Wetlands in the project area which are adjacent to Winters Run were formerly part of a high value wetlands system that has been degraded by the construction of Route 1 and County Park development. Valuable wetlands habitat, however, still remains and should be protected. The proposed project will have significant direct effects on these wetlands through disturbance, filling, and increased runoff volume affecting the hydrology of this groundwater-fed wetlands system. The EA fails to consider the hydrological effects of the proposed action.

The Environmental Assessment (EA) acknowledges that increased impervious surface cover, disturbance, and destruction of wetlands and streams and streambeds are harmful to surface water quality.³ The EA also acknowledges that the increased impervious surface from the project will impede groundwater recharge. Despite the availability of a number of broadly accepted methods for assessing the direct water quality impacts of such actions, the EA makes no attempt to estimate direct pollutant loadings that can be reasonably expected to be generated from the project.⁴

The EA states that it chose the Secondary and Cumulative Effects Analysis (SCEA) boundary based on subwatershed boundaries and has much natural resource information available at the subwatershed level.⁵ Although the Maryland Office of Planning and Maryland Department of Natural Resources have well developed Geographic Information Systems to assist in specifically examining the cumulative environmental effects of the proposed project on a subwatershed basis, the EA failed to utilize these readily available information sources and analytical tools. It is unacceptable that the EA would set boundaries based on subwatersheds, acknowledge the

² EA, pages 4-36-38; Letter from Scott A. Smith, "RE: Bel Air Bypass - Bog Turtle," Maryland Department of Natural Resources, May 18, 1998.

³ EA, page 5-9.

⁴ See: Kumble, et al. 10% Rule Compliance: Urban Stormwater Quality Guidance for the Maryland Chesapeake Bay Critical Area in Intensely Developed Areas. Chesapeake Bay Critical Area Commission, State of Maryland. May 1993; Horner, R. R., et al. Fundamentals of Urban Runoff Management: Technical and Institutional Issues. Terrene Institute and USEPA. August 1994; Center for Watershed Protection. Nutrient Loading from Conventional and Innovative Site Development. Chesapeake Research Consortium. July 1998; Schuler, T.R. Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs. Washington Metropolitan Water Resource Planning Board. July 1987.

⁵ EA, page 5-35.

availability of natural resource information to assist in direct and cumulative effects analysis specifically aggregated at the subwatershed level, and then not perform any kind of an analysis on the project's environmental effects.

In the case of the Winters Run subwatershed, even more information is available regarding cumulative effects of development on water quality as Maryland Office of Planning has worked with the County to model different development scenarios and their impact on water quality. At the very least, results from Office of Planning's "Watershed Planning System" analysis of Winter's Run subwatershed should be used to examine the direct, but especially cumulative, effects of this project. Results from this analysis conducted by the Office of Planning demonstrate that land use or "directed growth" techniques yield the greatest benefit, and that stormwater management techniques yield the least.⁶ Thus, actions that avoid increased impervious surface coverage are much more desirable than stormwater "Best Management Practices". The EA, however, glibly states that "discharge of pollutants and the temperature increase of runoff can be controlled through the use of stormwater management practices."⁷ The EA fails to provide a serious analysis or use readily available information regarding possible water quality effects of the build alternatives. At the same time, the EA promotes an uncritical acceptance of engineered stormwater management practices as a cure to any possible project impacts on aquatic resources. We find this assessment unacceptable and inadequate as a basis for assisting the public in making an informed decision about the trade-offs of the proposed action.

The proposed project impacts from construction, numerous stream crossings, placement of culverts, other streambed alterations, and encroachment on 100 year floodplains are not adequately assessed in the EA. The proposed action will have direct temporary and long-term effects on water quality and aquatic resources. None of these are addressed in the EA. While sediment and erosion control measures for construction and stormwater management Best Management Practices are important tools for mitigating the effects of damaging actions on water quality, it is important to recognize their limitations, especially when valuable resources are at risk. Many of these practices are untested over the long-term and regularly fail for any number of reasons, including: unknown design flaws, maintenance shortcomings, vandalism, natural failure or negative influences, and gradual deterioration.

Not only does the EA fail to provide useful natural resources information and analysis in general or at the subwatershed level, but the boundary for Secondary and Cumulative Effects Areas boundary (SCEA) also fails to incorporate the most important area of influence for analysis. The boundary for the SCEA fails to incorporate the area that is most at risk of detrimental effects from this project - rural lands to the north and east. This road project which seeks to provide a more rapid link between urbanized and rural areas will clearly accelerate and encourage new development outside PFAs. The SCEA boundary must be extended to the north and east beyond the Hickory Bypass to capture the ever broadening "commute-shed" created by perceived or real

⁶ Tassone, J.F., et al. Integrated Watershed Planning and Management: Growth, Land Resources, and Nonpoint Source Pollution. Maryland Office of Planning. Submitted for publication in "Proceedings of the Watershed '96 Conference."

⁷ EA, page 5-9.

reduced travel times. Higher speed travel on the road generates perceived or real reduction in travel times causing rural areas remote to major job centers to be more desirable for commuters. The secondary development induced (in the broadened commute-shed) by this project will generate a significant amount of increased impervious surfaces, new sources of polluted suburban runoff (e.g. intensively managed and compacted lawns), and new losses of natural resources such as wetlands, forests, floodplain encroachment and impacted streams.

These secondary and cumulative effects must be assessed as part of this project analysis and in combination with the Hickory Bypass process. To neglect to assess the cumulative effects of the Bel Air Bypass build alternatives along with the impacts from the Hickory Bypass amounts to segmentation, which is illegal under the National Environmental Policy Act.

3

III. Traffic Analysis

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We believe the build alternatives to be unnecessary and counter-productive, and thus the impacts to wetlands, streams and other natural resources wholly avoidable, for the following reasons:

1. Upgrading the Bypass would attract more sprawl to Forest Hill, Hickory and other heretofore rural areas in north Harford County.
2. Upgrading the Bypass does nothing to improve capacity or reduce congestion at the key adjacent intersections which connect Bel Air to the rest of the Baltimore urbanized area, particularly the intersection of MD 24 and US 1 Business, and the intersection of US 1, US 1 Business and MD 147.
3. Upgrading the Bypass ignores the more relevant and important issue of making the town center of Bel Air more livable and attractive. Solutions need to be identified and implemented which will resolve the uneasy coexistence of traffic and activity in the town center. The Bypass is not a viable traffic alternative for the vast majority of the through trips which impact the Bel Air town center, including traffic destined for Churchville and Aberdeen.

Detailed discussion of traffic operations and the proposed build alternatives

The project does not appear to provide more capacity at the locations where capacity is a major issue. Basically, the Bypass connects four specific points:

1. The intersection of US 1 and MD 147 west of Bel Air - This intersection operates on a three phase traffic signal. MD 147 to the west and US 1 Business to the east each have separate signal phases, while the bypass approach and the US 1 approach from the south move in tandem. This is a very inefficient way to operate an intersection and greatly reduces the overall capacity relative to a conventional two phase signal, but it is necessary because of the heavy left

turn movements on MD 147 and US 1 Business. The Bypass project does nothing to increase the capacity of this intersection.

2. MD 24 at US 1 (Business) at the Harford Mall within Bel Air - This huge intersection also has very heavy left-turn movements and operates from a complex multi-phase signal controller. MD 24 to I-95 is now the primary connection from Bel Air to Baltimore, rather than US 1. Moreover, this section of MD 24 is now the major retail area of Harford County. Most likely due to the excellent access control on the bypass, retail development has predominately stayed in this area of central and southern Bel Air, rather than migrating outward and northward to the sprawl area. The Bypass project does nothing to increase the capacity of this or the surrounding intersections and driveways.
3. MD 24 north of Bel Air toward Forest Hill - MD 24 north of the Bypass is one of the latest "sprawl frontiers" in Harford County. Just north of the Bypass, MD 24 is a dualized roadway with two through lanes in each direction. Northward, as development begins to be more scattered, it becomes a standard two lane road. Both lanes of southbound MD 24 are permitted to access a two lane ramp to the southbound Bypass, while a third ramp lane is dedicated to the left turn from the northbound access point. All three ramp lanes merge into a single dedicated lane on the Bypass. Traffic wishing to continue on southbound MD 24 (see Number 2 above) must move over one lane to the left. This ramp connection would be unchanged under all of the alternatives.
4. US 1 at MD 23 toward Hickory northeast of Bel Air - Hickory and the area beyond it to the north and east toward Conowingo and Pennsylvania is also a burgeoning sprawl development area. An improved connection from the north end of the Bypass to MD 23 and US 1 is being planned as a separate project in the State's Consolidated Transportation Plan. However, the Bypass connection itself at this point will still have only two lanes, with no apparent increase in the overall through capacity.

In sum, there would essentially be no capacity increase to any of the Bypass connections. What would increase is the capacity of the Bypass itself, by virtue of an upgrade of its intersection with MD 24 South. It takes up more land than the entire Bel Air town center, and is over a mile long.

Since none of the Bypass connections would have greater capacity as a result, the proposed intersection/interchange improvements would translate directly into greater *speed*, particularly for the left-turn from southbound US 1 / MD 24 to southbound MD 24. Speed is the traffic parameter which is most acutely perceived by the motoring public. This speed increase will therefore translate most directly into acceleration of development outside PFAs and the Development Envelope.

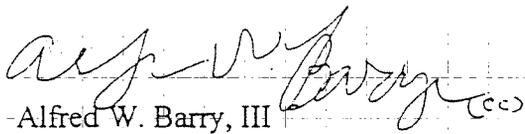
Perhaps there actually is a bottleneck along the Bypass that prevents it from most efficiently serving the four points listed above. If so, a large traffic circle might be an appropriate solution, although there may be other solutions that are specific and limited.

IV. Conclusion

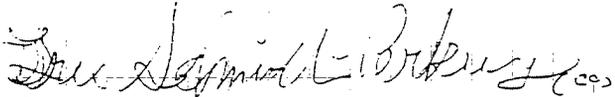
We find the EA wholly inadequate for assessing the direct, secondary and cumulative effects of the project on valuable wetlands, streams and other natural resources. Furthermore, based on our above traffic operations analysis, we find that all build alternatives fail to address the transportation needs of the Bel Air area, and only serve to encourage growth outside PFAs. Thus the project's direct, indirect and cumulative impacts on valuable aquatic resources are completely unnecessary, eminently avoidable, and would result in the violation of State Smart Growth laws. For these reasons, we ask that you deny a permit under Section 404 Authorization for this proposal.

We thank you for the opportunity to comment on this project.

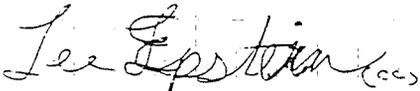
Sincerely,



Alfred W. Barry, III
Chairman, Committee on the Region
Citizens Planning and Housing Association
218 W. Saratoga Street
Baltimore, MD 21201



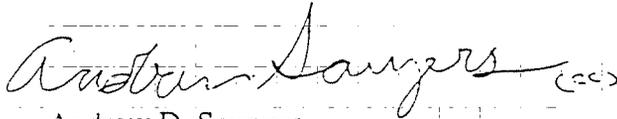
Dru Schmidt-Perkins
Executive Director
1000 Friends of Maryland
11½ W. Chase Street
Baltimore, MD 21201



Lee Epstein
Director, Lands Program
Chesapeake Bay Foundation
162 Prince George Street
Annapolis, MD 21401



Michael Replogle
Director, Federal Transportation
Environmental Defense Fund
1875 Connecticut Ave. NW
Washington, DC 20009



Andrew D. Sawyers
Director, Environment Program
Baltimore Urban League
512 Orchard Street
Baltimore, MD 21201

**BALTIMORE
REGIONAL
PARTNERSHIP**

August 31, 1999

Monty Rahman
Project Planning Division
State Highway Administration
707 N. Calvert Street
Baltimore, MD 21202

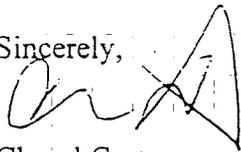
RE: US 1 - Bel Air Bypass from MD 147 to North of MD 924 - Comments

Dear Mr. Rahman:

Attached please find our comments submitted to the Army Corps of Engineers, April 16, 1999. These comments were submitted with an agreement with the Army Corps that the comment deadline would be extended to April 16 (see attached April 7 letter to Steve Elinsky).

I am submitting these comments to indicate to SHA that we have major concerns with the project for a number of reasons. In addition to direct environmental impacts, secondary impacts from sprawl development generated by increased speed and capacity of this road segment are of great concern. Additionally, we do not believe that the project will address the transportation needs of the town and surrounding communities. We ask that SHA reconsider the purpose and need for this project and reprogram existing planning funds to alternative investments that better address the transportation needs of the area.

Sincerely,



Cheryl Cort,
on behalf of the BALTIMORE REGIONAL PARTNERSHIP

Chesapeake Bay Foundation
162 Prince George St., Annapolis, MD 20410
Tel. 410-269-0481, Fax 410-268-6687
e-mail: ccort@savethebay.cbf.org

Enclosures

The Baltimore Regional Partnership is an alliance of five community and environmental groups working on a common agenda of enhancing the Baltimore area's quality of life through urban revitalization and environmental protection. The Partnership is: Citizens' Planning and Housing Association, Chesapeake Bay Foundation, Environmental Defense Fund, Baltimore Urban League, & 1000 Friends of Maryland. The Partnership is directed by Hank Goldstein, 1209 N. Calvert St., Baltimore MD 21202, Tel. 410-385-2910, Fax 410-385-2913.

SEP 01 1999 AM 1:04 JPPF



Chesapeake Bay Foundation
Environmental Education

CHERYL CORT

*Manager
Urban and Regional Projects*

102 Prince George Street, Annapolis, MD 21401
Annapolis 410.268.8816, Baltimore 410.269.0481
DC 301.261.2350, Fax 410.268.0087
ccort@savebay.org

Revised Paper

SHA response to Cheryl Cort letter:

Transportation Goals

4

The goals of the US 1 Bel Air Bypass project are to improve the safety of the highway and to accommodate projected traffic volumes. These improvements are intended to reduce accident rates in the study area, which are significantly higher than the statewide average rates for similar state highways, as well as accommodate projected increases in traffic volume along the US 1 Bel Air Bypass, particularly between MD 24 and MD 24/924. There were 103 police-reported accidents on US 1 in the study area between January 1, 1995 and September 30, 1998. These accidents resulted in a rate of 87.8 accidents per 100 million vehicle miles of travel (acc/100 mvm) over the study period. This rate is statistically significantly higher than the statewide average accident rate of 48.3 acc/100mvm. The rate of accident for both injury (44.3 acc/100mvm) and property damage (42.5 acc/100 mvm) accidents is higher in the study area than for the state as a whole (25.0 acc/100 mvm and 21.5 acc/100 mvm, respectively.) Study area property damage occurred at a rate nearly double the statewide average, while injury accidents occurred at a rate 70% greater than the statewide average rate. This project is being undertaken to address specific capacity and safety problems in a specific area and, while it will help to improve one part of the region's transportation network, it is not intended to solve all of the region's transportation problems.

The intersection of US 1/MD 24 is part of the study by SHA. Three alternates were considered to improve operations and increase capacity at this intersection. The alternate selected by the project team is a trumpet-style interchange, under which vehicles traveling southbound on US 1 wishing to head southbound on MD 24 would use a right exit ramp and fly over US 1 to the east. This would mean that southbound traffic originating from MD 24 north of US 1 would not have to move over to the left lane along US 1 in order to continue southbound on MD 24 and would thusly reduce the congestion of which you speak in your letter.

The design year for the Bel Air Bypass Project is 2025, and future traffic projections at the northern Bypass connection do not warrant additional capacity thus far. There may be a need to increase capacity beyond the current design year, and this section of US 1 will continue to be monitored as the project progresses and/or changes occur in the area's growth patterns.

Improvements in locations such as the MD 147/US 1/US 1 Business intersection, the MD 24/US 1 Business intersection, and the US 1/MD 23 intersection, are not part of this study and are not addressed in the environmental documentation. Project planning activities have been completed for US 1 Business from MD 152 to MD 147. This project received location approval on September 17, 1999 and has been transferred to SHA's Design division. It should be noted that funding to conduct final design activities have not been allocated at this time. The SHA Selected Alternate recommended for the MD 152 to MD 147 project is a six-lane divided highway between MD 152 and MD 147.

Secondary Impacts

① In section 5.9 of the Environmental Analysis (EA), the potential secondary and cumulative effects of this project are discussed. The conclusion, that the project is not anticipated to result in secondary development, is due to several reasons. The existing US 1 Bel Air Bypass is a partially controlled access facility throughout the study area. The proposed improvements will change this facility to fully controlled access. In general, when access is controlled, secondary development is usually focused in the area around the project's interchanges. However, the potential for secondary development in the vicinity of the MD 24 or MD 24/924 interchanges is limited because both locations already possess a substantial amount of development. Residential development exists to the east of US 1 in the region of the MD 24 interchange. Parkland, which will not be developed, exists to the west. Beyond this, there is a large amount of existing commercial development, including Harford Mall. The MD 24/924 interchange is also heavily developed between Bynum/Red Pump Road and North Avenue with commercial

development including North Park Center and Rock Spring Shopping Center as well as the Harford County Detention Center.

The Hickory Bypass project is not a part of the Bel Air Bypass project. Therefore, secondary development associated with the Hickory Bypass is addressed by the cumulative effects discussion for this project. A separate Secondary and Cumulative Effects Analysis (SCEA) report was prepared for the Hickory Bypass project.

① Cumulative Effects

Given the relative locations of the US 1 Bel Air Bypass and the Hickory Bypass/MD 23 Extension projects, it is evident that their cumulative effects, defined as the total impacts of the project combined with the impacts of any other past, present or reasonably foreseeable future projects, are similar. In each project's SCEA, the cumulative effects analysis included trends for all resources throughout a common SCEA boundary which encompasses both of these projects.

③ Project planning for the US 1 Bel Air Bypass and the Hickory Bypass/MD 23 Extension projects was conducted separately for two reasons: each project served a different purpose and need, and, each project had independent utility and logical termini.

Therefore, the conduction of two separate studies does not constitute segmentation. Additionally, the Purpose and Need, alternate development, selected alternate, and mitigation and permit requirements for each project were coordinated with both federal and state review agencies and the public. The results of this public and agency involvement are reflected in each project's SHA Selected Alternate which significantly reduce the environmental impacts of each project's original plan.

Smart Growth

The US 1 Bel Air Bypass project is located within Harford County's certified Priority Funding Area (PFA) as well as the County's designated Development Envelope. The areas around the project's interchanges, which are most likely to experience new or additional development, are also within the PFA and the Development Envelope. Therefore any land use changes that might occur in these locations as a result of this

project would conform with the goals of Maryland's Smart Growth Act and Harford County's Comprehensive Plan to control sprawl and protect rural areas by focussing new development into the PFA and the Development Envelope.

Similarly, development in areas outside of the PFA (and subsequently the County's Development Envelope) cannot be directly attributed to the improvements proposed by this project. While some development has occurred outside of the PFA irrespective of this project, further improvements to infrastructure outside of the PFA are not eligible for state funding, making it very difficult for the county or private developers to develop these areas due to the high costs associated with these types of improvements. In addition, the County's Development Envelope limits the area in which public water and sewer services will be provided thereby limiting development to low density residential and neighborhood-type commercial land uses. Despite the speed at which commuters may be able to travel through this project, development outside the PFA and Development Envelope will be limited by these factors.

Water Resources

Wetlands

The wetland impacts associated with the proposed build alternates for the US 1 Bel Air Bypass project are unavoidable due to the close proximity of these resources to the existing roadway. Efforts have been made to minimize these impacts to the greatest extent possible using retaining walls and reduced median widths. Wetland impacts are currently estimated to be less than two acres. The feasibility of additional minimization measures will be further assessed during the design phase of the project.

Wetlands 12C, 16, and 25 were described in the Environmental Assessment (EA) as having moderate potential for suitable Bog Turtle habitat. These wetlands were surveyed for the presence of Bog Turtles on May 12, 1999, May 20, 1999, and June 10, 1999. No Bog Turtles were found during any of the three field visits and it was subsequently determined that Bog Turtles are not present in these wetlands.

All remaining wetland impacts will be mitigated by the creation of new wetlands within the same watershed. SHA will continue to coordinate with the Maryland Department of the Environment (MDE) and the Army Corps of Engineers (ACOE) in order to preserve as much of these wetlands as is possible. The ACOE concurred with our Selected Alternative & Conceptual Mitigation for the project on October 16. (See the Correspondence Section for their concurrence letter.)

Water Quality

The EA acknowledges that the construction of the additional lanes on the US 1 Bel Air bypass will have some effect on water quality in this area due to the increased amount of impervious surface and associated runoff. Additionally, because a build alternative that would add impervious surface to the area was selected as the most prudent method to meet the transportation needs of the US 1 Bel Air Bypass, stormwater Best Management Practices (BMPs) are the most effective tool available for mitigating impacts to surface and groundwater quality. Preliminary studies indicate that none of the build alternatives appear to pose a substantial threat to groundwater resources because of the minimal effect on the recharge area for groundwater. This is because the additional impervious area to be created is small in comparison to the total watershed area contributing to recharge (approximately 17,830 acres). A conclusive study to evaluate groundwater recharge, availability (well yield), and water quality is being conducted presently for the SHA Selected Alternate. The report will be completed during the design phase of the project and will be submitted to the Maryland Department of the Environment (MDE).

All stormwater management practices employed by the SHA are under the approval authority of the MDE and must adhere to their standards for providing pollutant removal control. Design criteria established by MDE for the Storm Water Management (SWM) facilities utilized address pollutant removal so that by adhering to the criteria, the designer is providing a facility that meets MDE performance standard. The MDE has employed much research in order to establish their design criteria. Recently, a new two volume manual has been developed, the Maryland Stormwater Design Manual, that incorporates the experience gained over the years from the various BMPs and new,

innovative BMPs such as bioretention. This manual will be in effect when this roadway enters the construction design phase and SHA will be required to meet the criteria contained within it.

Therefore, the characterization of the SWM BMPs to be employed as being uncritically applied is not accurate given the regulatory authority of the MDE.

B. Agency Coordination |



Maryland Department of Transportation
State Highway Administration

Parris N. Glendening
Governor
John D. Porcari
Secretary
Parker F. Williams
Administrator

February 12, 1999

RE: Project No. HA888B12
US 1 Bel Air Bypass
Harford County, Maryland

Ms. Christine Wells
Planning Assistance and Neighborhood Development
Maryland Office of Planning
301 W. Preston Street
Baltimore MD 21201

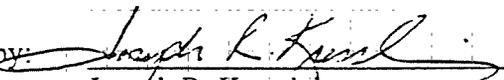
Dear Ms. Wells:

We are requesting that your office provide a preliminary determination of consistency with the Maryland Economic Growth, resource Protection and Planning Act for the Alternates Retained for Detailed Study for the US 1 Bel Air Bypass project. Enclosed is the Project Review Checklist regarding those alternates, along with a brief description of the proposed improvements.

We would appreciate receiving your response by March 15. If you have any questions about this request or need additional information, please call Mr. Joseph Kresslein at 410-545-8550.

Very truly yours,

Louis H. Ege, Jr.
Deputy director
Office of Planning and
Preliminary Engineering

by: 
Joseph R. Kresslein
Assistant Division Chief
Project Planning Division

LHE:LES
Enclosures (2)

cc: Mr. Gregory Cohen
Mr. Louis H. Ege, Jr.
 Mr. Jason Groth

Mr. Joseph R. Kresslein
Mr. Monty Rahman
Ms. Cynthia D. Simpson

My telephone number is _____

PROJECT REVIEW CHECKLIST
(When complete, record determination on Project Consistency Report)

Project Title US 1 Bel Air Bypass

Project Location: Harford County, MD 147 to MD 24/MD 924
(County and nearest major intersection)

Project Description Study to reconstruct US 1 to a multi-lane highway from MD 147 to MD 24/MD 924 at US 1 Business.

Approximate Funding Share

STATE	LOCAL	FEDERAL	OTHER
\$ 9.0 million	\$	\$ 36.3 million	\$

TIER 1

Y N
 1. Does the project add capacity to an existing facility or provide new capacity for an area not currently served by the facility?

2. Does the project facilitate changes in the existing pattern of growth?

If answer to either questions is "yes," proceed to Tier 2.

TIER 2

1. Is the project consistent with the local comprehensive plan?

2. Does the project support development in a suitable area, a designated development area, or a redevelopment area?

3. Can the project be designed to prevent adverse impacts to sensitive areas?

4. If in a rural area, does the project promote compact growth in existing population centers?

5. Does the project provide opportunities to conserve resources?

6. Does the project promote economic growth and development in accord with the other elements of the State's Growth Policy?

Explain "no" answers on reverse. If determination is that project is "inconsistent," proceed to Tier 3.

TIER 3

1. Do extraordinary circumstances exist which make the project or action necessary to construct despite a finding of inconsistency in Tier 2? If so, document.

2. Is there no reasonably feasible alternative to the project? If so, document.

Determination: Consistent Inconsistent with extraordinary circumstances

US 1, Bel Air Bypass

Growth Management Consistency Report

Alternate 3 – 5, All Options

TIER 1

1. **YES** The project proposes to dualize US 1, adding one additional lane of capacity in each direction between south of Winters Run and north of the MD 24/MD 924 interchange. The project also proposes upgrading the intersection of US 1 and MD 24 (relocated) to an interchange, increasing the capacity of US 1 and MD 24/MD 924; and providing a median on MD 24/MD 924 interchange between south of US 1 and north of Red Pump/Bynum Road.
2. **NO** The project would not change the existing pattern of growth. Growth is expected to occur within the Development Envelope adopted in both the 1977 Master Plan and the 1988 Land Use Plan.

TIER 2

1. **YES** The County's Transportation Plan: An Element of the Harford County Master Plan, January, 1994 lists the improvement as a "priority".
2. **YES** This project would support existing and new growth in areas designated for development (i.e., existing Development Envelope), consistent with the County Land Use and Master Plans.
3. **NO** These proposed improvements can be designed to minimize adverse impacts to sensitive areas through modifications to the typical section in those areas. However, some impact will be unavoidable due to the proximity of sensitive areas on both sides of the existing road. These unavoidable impacts will be mitigated to the extent practicable.
4. **YES** The proposed project is located within Harford County's Development Envelope and will support planned growth within this area.
5. **YES** Construction of this project would result in decreased travel times throughout the study area, thereby conserving energy, reducing traffic emissions and improving air quality.
6. **YES** This project will provide improvements essential to maintaining an adequate transportation network which will support county and state goals regarding land use, development and economic growth.

ALTERNATES RETAINED FOR DETAILED STUDY

All retained build alternates include dualization of US 1 from south of Winters Run to north of MD 24/924. The existing roadway section would become the southbound lanes of the dual highway. Four lanes (two lanes in each direction) and a 34-foot nominal median width are proposed from south of Winters Run to MD 24 and also north of the MD 24/924 interchange. Between MD 24 and MD 24/924 six lanes are proposed (two through lanes plus one auxiliary lane in each direction). Within this section, the proposed median width is 38 feet due to constraints imposed by the Vale Road bridge over US 1. The Vale Road bridge was designed to cross a four-lane divided highway with a 78-foot median. The median width varies with each alternate through the MD 24 interchange to accommodate differing ramp configurations. In addition, for the portion of US 1 from south of Winters Run to the MD 24 interchange, a 22-foot median has been proposed to reduce impacts to wetlands.

Alternate 3 (Grade-Separated Tee Interchange) - Under Alternate 3, northbound and southbound US 1 traffic would be free flowing through the MD 24 interchange but the movements to and from southbound US 1 would utilize an at-grade intersection. The design of the at-grade intersection would require a left exit and left entrance along southbound US 1 but the southbound US 1 to southbound MD 24 and the Northbound MD 24 to southbound US 1 movements would be signalized. This option requires the construction of one bridge to carry MD 24 over northbound US 1. (See detailed plan drawings at the end of this chapter.)

Alternate 4 (Trumpet Interchange) - The existing at-grade intersection at MD 24 would be eliminated with Alternate 4 and would be replaced with a trumpet interchange. The existing southbound US 1 lanes would be relocated to the east. The auxiliary lane on the southbound side of US 1 between MD 24 and MD 24/924 becomes semi-directional Ramp D as it approaches the MD 24 interchange. Semi-directional ramp D would provide for the southbound US 1 to southbound MD 24 movement. Loop ramp C is proposed to provide for the northbound MD 24 to southbound US 1 movement. (See detailed plan drawings at the end of this chapter.)

Alternate 5 (Three-Level Directional Interchange) - Alternate 5 would eliminate the existing at-grade intersection at MD 24 by constructing a three-level directional

interchange with US 1 northbound, ramp C and ramp D crossing at a single point. Directional ramp D is proposed to provide for the southbound US 1 to southbound MD 24 movement. A bridge is required that would pass over the northbound US 1 mainline bridge and directional ramp C (northbound MD 24 to southbound US 1). Ramp C would be constructed at the lowest level. (See detailed plan drawings at the end of this chapter.)

Option A - MD 24/924 would be widened by adding one through-lane in each direction from north of Red Pump and Bynum Roads to approximately 800 feet south of the interchange as well as turning lanes and a 4-foot monolithic concrete median. Turn lanes would also be added on the Bynum Road approach to MD 24. Sidewalks would be provided along both sides of MD 24/924 through the interchange. The park and ride lot would be replaced near its present location. Access to and from the park-and-ride lot would be provided at two locations. An entrance would be provided off of Ramp B. A signalized intersection at Ramp B and MD 24/924 would provide for access to both northbound MD 24 and southbound MD 924. A right-in, right-out would be provided directly off of MD 24.

The northbound US 1 to northbound MD 24 movement, loop ramp C, is proposed to be a double-lane loop ramp. Ramp A would take off from the existing northbound US 1 to southbound MD 924 ramp.

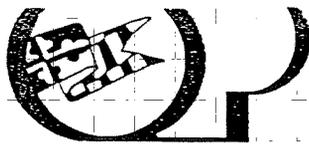
Spur ramp B is proposed to provide for access from northbound MD 924 to southbound US 1. Ramp B is a relocation of an existing substandard ramp. It would intersect MD 24/924 directly across from the existing ramp from southbound US 1 to southbound MD 924 with a new signalized intersection. Access to the park-and-ride lot will be provided at spur ramp B and a right-in-right-out adjacent to the US 1 overpass. (See detailed plan drawings at the end of this chapter.)

Option B - MD 24/924 would be widened to a four-lane divided highway with turning lanes from north of Red Pump and Bynum Roads to approximately 800 feet south of the interchange and would include a landscaped closed median which varies in width. The existing US 1 bridge provides adequate space for this roadway dualization. No modifications to the bridge would be necessary. Turn lanes would also be added on the Bynum Road approach to MD 24. Sidewalks would be provided along both sides of MD 24/924 through the interchange. The park-and-ride lot would be replaced near its present location and would have a single access point.

Loop ramp C , from northbound US 1 to northbound MD 24 would be widened to two lanes. The alignment of the ramp would be modified to tie into the proposed northbound US 1 lanes.

Spur ramp B is proposed to provide for improved access from northbound MD 924 to southbound US 1. Ramp B is a relocation of an existing substandard ramp. The ramp would originate at the existing northern egress from the park-and-ride lot. (See detailed plan drawings at the end of this chapter.)

22' Median - In order to further minimize impact to wetlands in the study area, two reduced median options are being studied for the 0.3 mile segment of US 1 from south of Winters Run to the MD 24 interchange. These options could be implemented as part of Alternate 3, 4, or 5 and would replace the proposed 38-foot median with a 22-foot median or a 22-foot bifurcated median. By reducing the median to a 22-foot width, grading from the proposed northbound lanes through this section of US 1 would not extend as far eastward. By utilizing a bifurcated median, the northbound lanes of the new dual highway would be constructed on a lower elevation than the southbound lanes. Therefore, less grading would be necessary on the east side of US 1 through this section and wetland impacts could be further reduced.



MARYLAND Office of Planning

Parris N. Glendening
Governor

Ronald M. Kreitner
Director

March 18, 1999

Mr. Louis H. Ege, Jr., Deputy Director
Office of Planning & Preliminary Engineering
Maryland State Highway Administration
P.O. Box 717
Baltimore, MD 21203-0717

1/18 RJD
5/21/99
Kreitner
3/20/99
Preliminary
12/15/99

Dear Mr. Ege:

This is in response to the request for OP's preliminary assessment of the Alternatives Retained for Detailed Study on the US 1 Bel Air Bypass project for consistency with the Maryland Economic Growth, Resource Protection, and Planning Act of 1992. Our assessment is based on the project information obtained through the NEPA process. We have reviewed the SHA's Project Review Checklist dated February 12, 1999. We note that a checklist has not been provided for Alternative 1 (No-Build Alternative), one of the Alternatives Retained for Detailed Study. We normally review the checklist for all of the alternatives retained for detailed study.

Alternative 1 (No-Build Alternative)

Based on the information provided in the Location/Design Public Hearing brochure, Alternative 1 would only provide normal maintenance and minor improvements and would not meet the purpose and need of the project. We understand that although Alternative 1 would help improve the effectiveness of the existing US 1/Bel Air Bypass for addressing immediate roadway safety and service needs, it would not address the long term need for this project. Therefore, the no-build alternative is less consistent with the Planning Act of 1992.

Alternative 3, 4, 5 and Options A and B (Build Alternatives)

The build alternatives would meet the purpose of the project by improving safety and accommodating projected increase in traffic volume along the US 1 Bel Air Bypass. Capacity and safety improvements on US 1 are priorities in the Harford County Master Plan. The build alternatives would provide for adequacy of the transportation system to support development in Harford County's planned growth area. Overall, the build alternatives are consistent with the Planning Act of 1992.

We recognize that there will be adverse impacts on environmentally sensitive areas resulting from the build alternatives. We note that SHA has been working with the resource agencies to modify some typical sections to reduce the impacts, e.g., by reducing widths of the medians.

US 1/MD 24/MD 924 Interchange Options A and B include layouts that would require replacing the existing park and ride lot. In a January 7, 1998 letter to OP, SHA stated that "in support of a possible future bus service increase, the existing 63-space lot is proposed for reconstruction as an 86-space lot under Options A and B with room for further expansion." MTA's Route 411 serves the lot weekdays. We consider it important that the commuter parking not be eliminated, even temporarily. We assume that continual coordination through this project between SHA and MTA will assure efficient access to the new park and ride facility. It is consistent with the State Planning Act policy to plan for, develop and encourage the use of alternatives to single occupant vehicle travel.

Should you have any questions regarding our comments or if we can assist in coordination on this project, please do not hesitate to contact me at 410-767-4551.

Sincerely,

Christie Wells

Christine Wells
Principal Planner

- cc: Ron Young, OP
- George K. Frick Jr., FHWA
- Keith Harris, COE
- Attention: Vance Hobbs
- John Forren, EPA
- Bob Pennington, USFWS
- Timothy Goodger, NMFS
- Attention: John Nichols
- Cynthia Wilkerson, NPS
- Ray Dintaman, DNR
- Elder Ghigiarelli, MDE
- J. Rodney Little, MHT
- Henry Kay, MTA

*Per telephone conversation 3/16/00
with Ms. Xi Hui, SHA will
investigate locating the bus
temporary during the bus terminal
location to maintain bus operations
and she will maintain bus operations
with MTA throughout the
process.*



Maryland Department of Transportation
State Highway Administration

Parris N. Glendening
 Governor
 John D. Porcari
 Secretary
 Parker F. Williams
 Administrator

MEMORANDUM

TO: Mr. Louis H. Ege, Jr.
 Deputy Director
 Office of Planning and
 Preliminary Engineering

FROM: Monty Rahman
 Project Planning Division

DATE: March 26, 1999

SUBJECT: US 1 Bel Air Bypass from MD 147 to North of MD 924
 US 1 from MD 152 to MD 147

RE: Meeting Minutes with the Town of Bel Air

A meeting with the representatives of the Town of Bel Air was held on March 16, 1999 for the subject projects. Those in attendance were:

W. N. McFaul	Town Administrator- Town of Bel Air
Susan McComas	Town Commissioner- Town of Bel Air
Carol Deibel	Director of Planning- Town of Bel Air
Elizabeth Carver	Community Dev't Administrator- Town of Bel Air
Brad Shockley	Planner- Town of Bel Air
Bob Syphard	Planner- Town of Bel Air
Monty Rahman	Project Manager-SHA
Greg Cohen	Project Engineer-SHA
Alazar Feleke	Project Engineer-SHA

Mr. Rahman stated that the purpose of the meeting was to update the attendees on our progress with the US 1-Bel Air Bypass and US 1 from MD 152 to MD 147 project planning studies. Mr. Rahman then gave a brief presentation on the Project Development process to include the four phases:

- Project Planning
- Final Design
- Right-of-way Acquisition, and
- Construction.

He indicated that both projects are funded for Project Planning only. Funding is not programmed for final design, right-of-way acquisition, or construction at this time. A Location/Design Public Hearing for the Bel Air Bypass study is scheduled for March 24, 1999.

My telephone number is _____

Maryland Relay Service for Impaired Hearing or Speech
 1-800-735-2258 Statewide Toll Free

Mailing Address: P.O. Box 717 • Baltimore, MD 21203-0717

Mr. Rahman also gave a brief presentation on the Project Planning process and then asked Mr. Cohen to describe the alternates currently under consideration for the two projects. They are as follows:

US 1-Bel Air Bypass from MD 147 to North of MD 24/924

- Alternate 1 (No-Build Alternate) is limited to normal maintenance activity with minor improvements that would not address the need for this project.
- Alternate 3 proposes a grade separated "T" interchange to allow for free-flowing northbound and southbound traffic along US 1 while left-turning traffic to and from US 1 and MD 24 would utilize an at-grade intersection. This option requires the construction of one bridge to carry MD 24 over northbound US 1.
- Alternate 4 proposes a trumpet interchange that eliminates the existing at-grade intersection at MD 24 and US 1. Under this scenario, US 1 would be relocated east away from the Heavenly Waters Park to allow room for a loop ramp from MD 24 to US 1 southbound. All other turning movements would also be accommodated by free-flowing ramps. One bridge would be required to carry MD 24 traffic over US 1.
- Alternate 5 proposes a three level directional interchange which would replace the existing at-grade intersection. Vehicles traveling from US 1 southbound onto MD 24 would use a left exit ramp. Other turning movements would also be accommodated by free-flowing ramps. Construction of two stacked bridges would be required under this scenario.
- US 1/MD 24/MD 924 interchange options A and B propose a double lane loop ramp for the northbound US 1 to northbound MD 24 traffic as well as some improvements along the MD 24/MD 924 mainline in the vicinity of the interchange, and provide a new layout to replace the existing park-and-ride facility. The main difference between options A and B is in the proposed median width along MD 24/MD924 and the park-and-ride layout design.

US 1 from MD 152 to MD 147

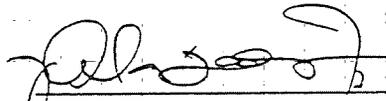
- Since the 1997 Public Hearing, a six lane divided roadway with frequent median breaks to allow access to businesses and local streets has been carried forward and may eventually be selected for design approval. Prior to construction of this alternate, it is possible that interim improvements could be developed at two intersections most in need of additional capacity: US 1 at MD 152 and US 1 at MD 147. Several options are under consideration that can provide relief for design year 2005, 2010, 2015 and 2020. The mainline improvements are compatible only with the year 2020 intersection improvements.

A period of open discussion followed with the major points captured below:

- The town officials voiced their concerns regarding the existing at-grade intersection at MD 24 and US 1. It was described that due to lack of proper lighting, it is very difficult to cross this intersection during the dark.
- The existing US 1/MD 24/MD 924 interchange, there are safety issues regarding geometry and sight distance while driving on the ramp. Of particular concern was the slippery conditions during winter weather on the ramp from US 1 north onto MD 924.
- Major development has been occurring along US 1 Business north of MD 147. The attendees called for new studies along this roadway by the State Highway Administration. US 1 Business was removed from the scope of the project planning study in August, 1993 due to lack of elected official support at the Final 1993-1998 Consolidated Transportation Plan (CTP) Elected Officials Briefing. At that time, the Harford County Delegation identified US 1 from MD 152 to MD 147 as a higher priority than the US 1 Bel Air Bypass and offered little support for the section of US 1 Business from MD 147 to MD 24 (Ref: CTP Briefing Minutes, August 24, 1993).
- Overall, the attendees expressed support for the various concepts presented and were in agreement that improvements to US 1 are beneficial to the Town of Bel Air.

If you have any questions or comments, please feel free to contact me at 410-545-8543.

By:



Alazar Feleke
Project Engineer
Project Planning Division

cc: Mr. Neil J. Pedersen
Mr. Jason Groth
Attendees



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

APR 09 1999

Mr. Louis H. Ege, Jr.
Deputy Director
Office of Planning and Preliminary Engineering
Maryland State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21203

Re: US Route 1 + Bel Air Bypass: From MD 147 to north of MD 24/924,
Harford County Maryland
Environmental Assessment

Dear Mr. Ege:

In accordance with the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulations (40 CFR 1500-1508), Section 309 of the Clean Air Act and Section 404 of the Clean Water Act, the Environmental Protection Agency (EPA) has reviewed the Draft Environmental Assessment (EA) for the above referenced project. Based on this review the EPA would like to offer the following suggestions to improve the quality of this document:

Before EPA can support the Finding of No Significant Impact for this project we would need more information on the potential Bog Turtle Habitat in the study area. While the direct impacts to the environment seem minimal, impacting a federally listed species may warrant studying other alternatives further. EPA would like to be informed of the results of the Bog turtle survey when it is conducted this spring.

Current information supporting the Purpose and Need should be included in this document. For example: How do the numbers predicted for the year 2000 compare to what is happening today in 1999? What was the predicted yearly growth rate in traffic and does that coincide to what has happened?

2-2 Traffic Volumes: This section states that the "Traffic measurements from 1993... were conducted for the study area." Yet no where in the report is this data provided. This information or current data should be included in this section as a baseline to compare forecasted Average Daily Traffic of Table 2-1.

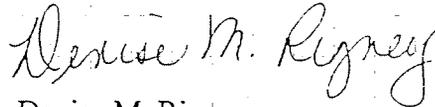
2-4 Level of Service: For comparison the current AM and FM peak LOS should be included in this section as well.

Customer Service Hotline: 1-800-438-2474

5-50 Wildlife and Rare, Threatened and Endangered Species: It is stated that "DNR reports six state listed threatened or Endangered animal species ... and 25 threatened or endangered plant species which were known to occur within the SCEA boundary." Have studies for any of these species, besides the bog turtle, been conducted to determine if these other species do indeed inhabit this right-of-way? What were the results of these studies?

Thank you for the opportunity to provide comments on this EA document. If you have any questions regarding this letter please feel free to contact Jamie Stark at 215-814-5569.

Sincerely,



Denise M. Rigney
Transportation Program Manager



Maryland Department of Transportation
State Highway Administration

Parris N. Glendening
Governor

John D. Porcari
Secretary

Parker F. Williams
Administrator

November 30, 2000

Re: Project No. HA888B12
US 1-Bel Air Bypass from MD 147
to north of MD 924
Harford County, MD

Ms. Denise Rigney
US Environmental Protection Agency
Region 3 - 3ES30
Environmental Services Division
Office of Environmental Programs
1650 Arch Street
Philadelphia PA 19103-2029

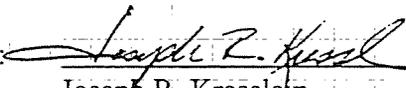
Dear Ms. Rigney:

As requested, in your April 9, 1999 letter commenting on the environmental assessment, we are transmitting the final version of the Bog Turtle Survey conducted for the US 1 - Bel Air Bypass project. Wetlands W25 and W16, located along US 1 just south of Vale road in Bel Air, were surveyed, with negative results, between May 1 and June 15, 1999, according to the Maryland Department of Natural Resources guidelines.

Should you have any questions or comments regarding the enclosed survey, please call Ms. Lorraine Strow at 410-545-8697.

Very truly yours,

Cynthia D. Simpson
Deputy Director
Office of Planning and
Preliminary Engineering

by: 
Joseph R. Kresslein
Assistant Division Chief
Project Planning Division

Attachment

- cc: Mr. Mark Duvall
- Mr. Joseph R. Kresslein
- Mr. Dan Johnson
- Ms. Lorraine Strow

My telephone number is _____

Maryland Relay Service for Impaired Hearing or Speech
1-800-735-2258 Statewide Toll Free

Mailing Address: P.O. Box 717 • Baltimore, MD 21203-0717
Street Address: 707 North Calvert Street • Baltimore, Maryland 21202



Maryland Department of Transportation
State Highway Administration

November 1, 1999

Parris N. Glendening
Governor
John D. Porcari
Secretary
Parker F. Williams
Administrator

Re: Project No. HA888B12
US 1 Bel Air Bypass from MD 147
to North of MD 924
Harford County, MD

Mr. Robert Zepp
U.S. Department of the Interior
Fish and Wildlife Service
Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis MD 21401

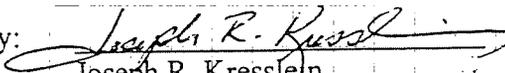
Dear Mr. Zepp:

As requested, we are transmitting the final version of the Bog Turtle Survey conducted for the US 1 + Bel Air Bypass project. Wetlands W25 and W16, located along U.S. 1 just south of Vale Road in Bel Air, were surveyed between May 1 and June 15 according to the Maryland Department of Natural Resources guidelines.

Should you have any questions or comments regarding the enclosed survey, please call Ms. Heather Amick, the environmental manager, at 410-545-8526.

Very truly yours,

Cynthia D. Simpson
Deputy Director
Office of Planning and
Preliminary Engineering

by: 
Joseph R. Kresslein
Assistant Division Chief
Project Planning Division

JRK:hba

Attachments

cc: ~~Ms. Heather Amick~~
Mr. Mark Duvall (w/attachments)
Mr. Joseph Kresslein
Ms. Pamela Stephenson

My telephone number is _____

Maryland Relay Service for Impaired Hearing or Speech
1-800-735-2258 Statewide Toll Free

Mailing Address: P.O. Box 717 • Baltimore, MD 21203-0717



Maryland Department of Transportation
State Highway Administration

Parris N. Glendening
Governor
John D. Porcari
Secretary
Parker F. Williams
Administrator

November 1, 1999

Re: Project No. HA888B12
US 1-Bel Air Bypass from MD 147
to North of MD 924
Harford County, MD

Mr. Scott Smith
Maryland Department of Natural Resources
P.O. Box 68
Wye Mills, MD 21679

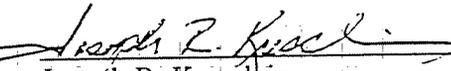
Dear Mr. Smith:

As requested, we are transmitting the final version of the Bog Turtle Survey conducted for the US 1 - Bel Air Bypass project. Wetlands W25 and W16, located along U.S. 1 just south of Vale Road in Bel Air, were surveyed between May 1 and June 15 according to the Maryland Department of Natural Resources guidelines.

Should you have any questions or comments regarding the enclosed survey, please call Ms. Heather Amick, the environmental manager, at 410-545-8526.

Very truly yours,

Cynthia D. Simpson
Deputy Director
Office of Planning and
Preliminary Engineering

by: 
Joseph R. Kresslein
Assistant Division Chief
Project Planning Division

JRK:hba

Attachments

cc: Ms. Heather Amick
Mr. Mark Duvall (w/attachments)
Mr. Joseph Kresslein
Ms. Pamela Stephenson

My telephone number is _____

Maryland Relay Service for Impaired Hearing or Speech
1-800-735-2258 Statewide Toll Free

Mailing Address: P.O. Box 717 • Baltimore, MD 21203-0717



DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MD 21203-1715

REPLY TO
ATTENTION OF

OCT 16 2000

Operations Division

Subject: CENAB-OP+RMN(MD SHA/US 1 @ BEL AIR BYPASS/PHASE
III/PREFERRED ALT. CONCURRENCE)97-62403-12

Maryland State Highway Administration
Office of Planning and Preliminary Engineering
Attn: Ms. Cynthia D. Simpson, Deputy Director
707 North Calvert Street
Baltimore, Maryland 21202

Dear Ms. Simpson:

This is in response to your letter dated September 27, 2000, requesting concurrence from this office for the Selected Alternative and Conceptual Mitigation for the subject project. This office has reviewed the provided information and concurs with the Selected Alternative in addition to the Conceptual Mitigation. Enclosed is our signed concurrence on the provided concurrence document.

If you have any questions concerning this matter, please contact Mr. Steve Elinsky of this office at 410.962.4503.

Sincerely,

Paul R. Wettlaufer
Transportation Program Manager

Enclosure

Project Name & Limits: US 1 Bel Air Bypass from MD 147 to north of the MD 24/924 interchange

Having reviewed the attached SHA Selected Alternate and Conceptual Mitigation concurrence/comment package and the summary presented above, the following agency (by signing this document):

Federal Highway Administration Fish and Wildlife Service MD Dept. of Natural Resources
 Environmental Protection Agency National Park Service MD Dept. of the Environment
 Corps of Engineers National Marine Fisheries Service

Concur (without comments) Concur (w/ minor comments) Does Not Concur

Comments / Reasons for Non-Concurrence:

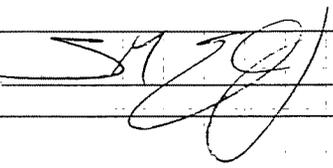
Note: Do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

MD Historical Trust MD Office of Planning Metropolitan Planning Organization

Provides Comments (below or attached) Has No Comments

Comments:

Additional Information Needed:

Signature: 

Date: 10-16-00

Project Name & Limits: US 1 Bel Air Bypass from MD 147 to north of the MD 24/924 interchange

Having reviewed the attached SHA Selected Alternate and Conceptual Mitigation concurrence/comment package and the summary presented above, the following agency (by signing this document):

Federal Highway Administration Fish and Wildlife Service MD Dept. of Natural Resources
 Environmental Protection Agency National Park Service MD Dept. of the Environment
 Corps of Engineers National Marine Fisheries Service

Concur (without comments) Concur (w/ minor comments) Does Not Concur

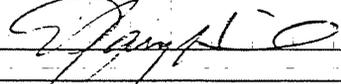
Comments / Reasons for Non-Concurrence:
.....
.....

Note: Do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

MD Historical Trust MD Office of Planning Metropolitan Planning Organization
 Provides Comments (below or attached) Has No Comments

Comments:
.....
.....

Additional Information Needed:
.....

Signature:  Date: 9/26/10

Project Name & Limits: US 1 Bel Air Bypass from MD 147 to north of the MD 24/924 interchange

Having reviewed the attached SHA Selected Alternate and Conceptual Mitigation concurrence/comment package and the summary presented above, the following agency (by signing this document):

Federal Highway Administration Fish and Wildlife Service MD Dept. of Natural Resources
 Environmental Protection Agency National Park Service MD Dept. of the Environment
 Corps of Engineers National Marine Fisheries Service

Concur (without comments) Concur (w/ minor comments) Does Not Concur

Comments / Reasons for Non-Concurrence:

Note: Do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

MD Historical Trust MD Office of Planning Metropolitan Planning Organization
 Provides Comments (below or attached) Has No Comments

Comments:

Additional Information Needed:

Signature: Ray C. Dittman, Jr.

Date: Sept. 19, 2000

Project Name & Limits: US 1 Bel Air Bypass from MD 147 to north of the MD 24/924 interchange

Having reviewed the attached SHA Selected Alternate and Conceptual Mitigation concurrence/comment package and the summary presented above, the following agency (by signing this document):

Federal Highway Administration | Fish and Wildlife Service | MD Dept. of Natural Resources
 Environmental Protection Agency | National Park Service | MD Dept. of the Environment
 Corps of Engineers | National Marine Fisheries Service

Concur (without comments) | Concur (w/ minor comments) | Does Not Concur

Comments / Reasons for Non-Concurrence:

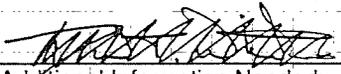
Note: Do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

MD Historical Trust | MD Office of Planning | Metropolitan Planning Organization
 Provides Comments (below or attached) | Has No Comments

Comments:

Additional Information Needed:

Signature: Regina L. Lewis Date: 9/21/00

Project Name & Limits: US 1 Bel Air Bypass from MD 147 to north of the MD 24/924 interchange		
Having reviewed the attached SHA Selected Alternate and Conceptual Mitigation concurrence/comment package and the summary presented above, the following agency (by signing this document):		
<input type="checkbox"/> Federal Highway Administration	<input type="checkbox"/> Fish and Wildlife Service	<input type="checkbox"/> MD Dept. of Natural Resources
<input type="checkbox"/> Environmental Protection Agency	<input type="checkbox"/> National Park Service	<input type="checkbox"/> MD Dept. of the Environment
<input type="checkbox"/> Corps of Engineers	<input type="checkbox"/> National Marine Fisheries Service	
<input type="checkbox"/> Concur (without comments) <input type="checkbox"/> Concur (w/ <u>minor</u> comments) <input type="checkbox"/> Does Not Concur		
Comments / Reasons for Non-Concurrence:		
<i>Note: Do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with <u>minor</u> comments) or not concur until revisions are made or additional information is provided.</i>		
<input type="checkbox"/> MD Historical Trust	<input checked="" type="checkbox"/> MD Office of Planning	<input type="checkbox"/> Metropolitan Planning Organization
<input checked="" type="checkbox"/> Provides Comments (below or attached) <input type="checkbox"/> Has No Comments		
Comments: <i>See Attached Comments</i>		
		
Additional Information Needed:		
Signature: <i>[Signature]</i> AICP	Date: <i>10/2/00</i>	

ATTACHMENT | 3

Re: the SHA Selected Alternative and Conceptual Mitigation for the US1- Bel Air Bypass Project, Concurrence Package - August 2000

Comments:

Referring to the 5th paragraph on page 1, rewrite the first sentence as "The project is located within Harford County certified Priority Funding Area." Delete "is consistent with Maryland's Smart Growth initiative."

Project Name & Limits: US 1 Bel Air Bypass from MD 147 to north of the MD 24/924 interchange

Having reviewed the attached SHA Selected Alternate and Conceptual Mitigation concurrence/comment package and the summary presented above, the following agency (by signing this document):

Federal Highway Administration Fish and Wildlife Service MD Dept. of Natural Resources
 Environmental Protection Agency National Park Service MD Dept. of the Environment
 Corps of Engineers National Marine Fisheries Service

No Action Concur (without comments) Concur (w/ minor comments) Does Not Concur

Comments / Reasons for Non-Concurrence:

Note: Do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

MD Historical Trust MD Office of Planning Metropolitan Planning Organization
 Provides Comments (below or attached) Has No Comments

Comments:

Additional Information Needed:

Signature: [Handwritten Signature] Date: 1/12/01

To: Lorraine
Stow

To: Gay Olsen, SHA

Project Name & Limits: US 1 Bel Air Bypass from MD 147 to north of the MD 24/924 interchange		
Having reviewed the attached SHA Selected Alternate and Conceptual Mitigation concurrence/comment package and the summary presented above, the following agency (by signing this document):		
<input type="checkbox"/> Federal Highway Administration	<input type="checkbox"/> Fish and Wildlife Service	<input type="checkbox"/> MD Dept. of Natural Resources
<input type="checkbox"/> Environmental Protection Agency	<input type="checkbox"/> National Park Service	<input checked="" type="checkbox"/> MD Dept. of the Environment
<input type="checkbox"/> Corps of Engineers	<input type="checkbox"/> National Marine Fisheries Service	
<input checked="" type="checkbox"/> Concur (without comments) <input type="checkbox"/> Concur (w/ <u>minor</u> comments) <input type="checkbox"/> Does Not Concur		
Comments / Reasons for Non-Concurrence: _____		
Note: Do <u>not</u> provide "conditional" concurrence. You should either concur with the information as provided (without comments or with <u>minor</u> comments) or not concur until revisions are made or additional information is provided.		
<input type="checkbox"/> MD Historical Trust	<input type="checkbox"/> MD Office of Planning	<input type="checkbox"/> Metropolitan Planning Organization
<input type="checkbox"/> Provides Comments (below or attached) <input type="checkbox"/> Has No Comments		
Comments: _____		
Additional Information Needed: _____		
Signature: <u>Elder A. Ghizianelli</u>	Date: <u>1/26/01</u>	

cc: Dave Boellner, NTW&WD

Project Name & Limits: US 1 Bel Air Bypass from MD 147 to north of the MD 24/924 Interchange

Having reviewed the attached SHA Selected Alternate and Conceptual Mitigation concurrence/comment package and the summary presented above, the following agency (by signing this document):

Federal Highway Administration Fish and Wildlife Service MD Dept. of Natural Resources
 Environmental Protection Agency National Park Service MD Dept. of the Environment
 Corps of Engineers National Marine Fisheries Service

Concurs (without comments) **Concurs (w/ minor comments)** **Does Not Concur**

Comments / Reasons for Non-Concurrence:

Provide additional information on the reduction of stream impacts.

Note: Do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

MD Historical Trust MD Office of Planning Metropolitan Planning Organization

Provides Comments (below or attached) Has No Comments

Comments:

Additional Information Needed:

Signature:

Dennis M. Rooney

Date:

2/15/01



Maryland Department of Transportation
State Highway Administration

Parris N. Glendening
Governor
John D. Porcari
Secretary
Parker F. Williams
Administrator

September 27, 2000

RE: Project No. HA888B12
US 1- Bel Air Bypass
Harford County, Maryland

Mr. Paul Wettlaufer
Transportation Program Manager
U.S. Army Corps of Engineers
Baltimore District, CENB-OP-R
P.O. Box 1715
Baltimore MD 21203

Attn: Mr. Steve Elinsky

Dear Mr. Wettlaufer:

Enclosed, per your request, is a report on the additional investigation of wetland mitigation and stream restoration opportunities associated with the US 1 - Bel Air Bypass Project. Existing conditions and recommendations are summarized for the Rahll property and the Adams property, both accepted as mitigation sites by your agency. The Rahll property has potential for creation of five acres for non-tidal wetlands and 2650 linear feet for stream restoration. The Adams property offers the possibility of creating four acres of non-tidal wetlands and approximately 5400 linear feet of headwater tributaries for stream restoration work. The enclosed mapping identifies the locations of the proposed work. Although either property provides ample opportunity to mitigate the impacts of the project (0.83 wetland acres and 1540 linear feet of waters of the U.S.), SHA has decided to pursue the Rahll property first, with the Adams property as a backup mitigation site. Due to the uncertain funding status of the project, property owner participation cannot be guaranteed at this time. At a point closer to funding availability, property owner participation will be pursued.

1,95 ac

We hope this information will help expedite your review of the Selected Alternative and Conceptual Mitigation document. If you have any questions or comments, please feel free to call the project manager, Monty Rahman at (410) 545-8524 or the environmental manager, Lorraine Strow at (410) 545-8697.

My telephone number is _____

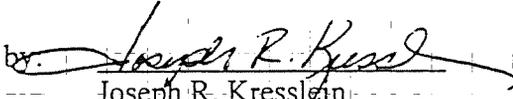
Maryland Relay Service for Impaired Hearing or Speech
1-800-735-2258 Statewide Toll Free

Mailing Address: P.O. Box 717 • Baltimore, MD 21203-0717
Street Address: 707 North Calvert Street • Baltimore, Maryland 21202

Mr. Paul Wettlaufer
US 1- Bel Air Bypass
Page Two

Very truly yours,

Cynthia D. Simpson
Deputy Director
Office of Planning and
Preliminary Engineering

by: 
Joseph R. Kresslein
Assistant Division Chief
Project Planning Division

Attachment

cc: Mr. Gilbert Estridge
Ms. Susie Jacobs (w/attachments)
Mr. Joseph Kresslein "
Ms. Suenette Pope "
Mr. Monty Rahman
Ms. Lorraine Strow
Mr. Jim Wynn

U.S. Route 1 Bel Air Bypass Project
MD SHA Contract Number HA888B12

Potential Wetland Mitigation and Stream Restoration Sites

Rahll Property

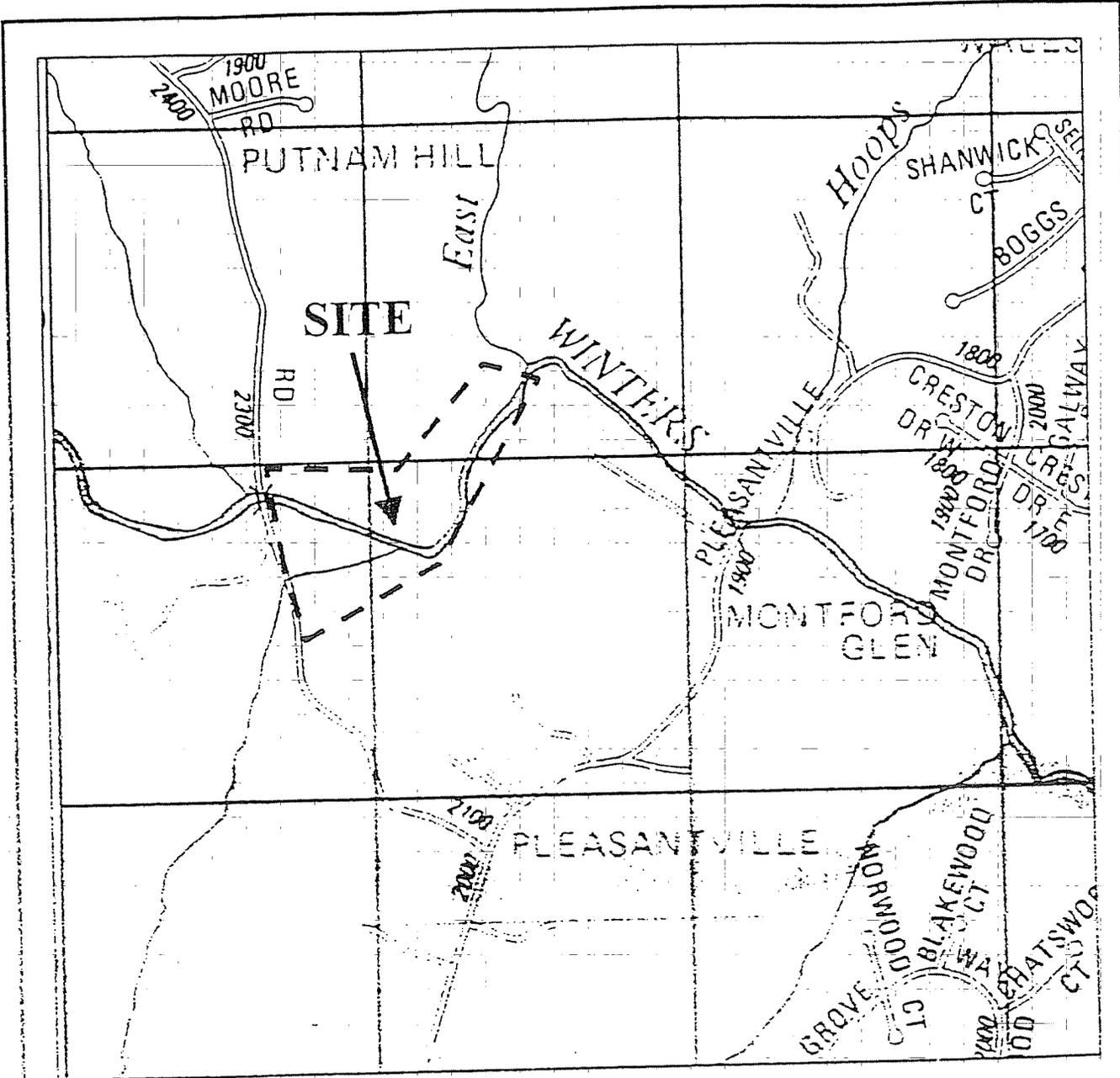
The Rahll property is located on Putnam Road in the Fallston area of Harford County, Maryland (ADC Map #16, Coordinates A6). The potential wetland mitigation and stream restoration areas are located within the floodplain of the main stem of the West Branch of Winters Run, adjacent to Putnam Road. The potential project site is currently used as pasture for cattle and horses, with unlimited livestock access to the stream. The West Branch of Winters Run has been designated by the Maryland Department of the Environment as a USE IV - Recreational Trout Water of Maryland. The stream reaches within the potential project area are predominantly devoid of shade-providing vegetation within the adjacent riparian zone, and have somewhat incised and unstable banks due to ongoing livestock hoof impact.

The potential project area on the Rahll property appears to offer the opportunity for creation of approximately 5 acres of nontidal wetlands, and restoration of approximately 2,650 linear feet of stream along the main stem of the West Branch of Winters Run and one of its unnamed tributaries. Stream restoration practices that would most likely be utilized for this site include bank regrading and stabilization, boulder spurs, streambank fencing, cross-vane weirs, sod matting, and planting with woody vegetation to provide shading.

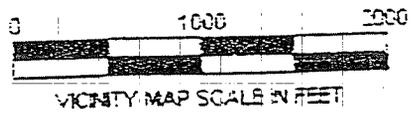
Adams Property

The Adams property is located on MD Route 136 in the Creswell area of Harford County, Maryland (ADC Map #18, Coordinates G10). The potential wetland mitigation and stream restoration areas are located along the headwaters and floodplain of an unnamed tributary to Bynum Run. The potential project site is currently used as pasture for cattle, with unlimited livestock access to the stream. Bynum Run has been designated by the Maryland Department of the Environment as a USE III - Natural Trout Water of Maryland. Many of the stream reaches within the potential project area are devoid of shade-providing vegetation, and have somewhat incised and unstable banks due to ongoing livestock hoof impact and highly erodible soil conditions.

The potential project area on the Adams property appears to offer the potential for creation of approximately 4 acres of nontidal wetlands, and restoration of approximately 5,400 linear feet of unnamed headwater tributaries to Bynum Run. Stream restoration practices that would most likely be utilized for this site include bank regrading and stabilization, root wads, boulder spurs, sod matting, cross-vane weirs, live staking, and planting with woody vegetation to provide shading.



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LEGEND

 Approximate Mitigation Area Locations

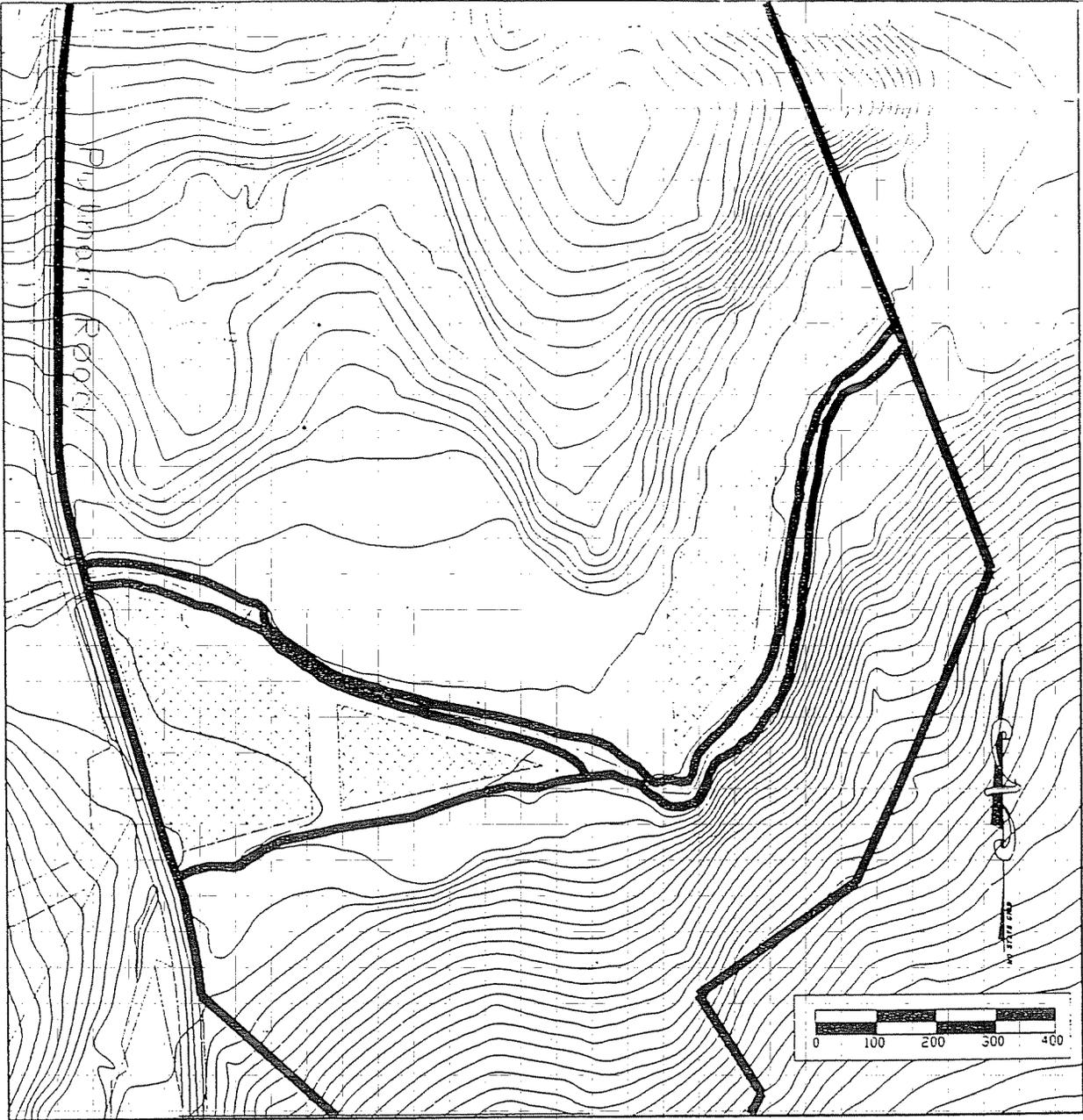


Maryland Department of Transportation
 State Highway Administration

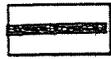
Rahl Property
 Potential Mitigation Site
 Winters Rural Watershed, Hartford County, MD
 SHA Contract HA888B12

DATE: SEPTEMBER 14, 2000

PREPARED FOR:
 MD SHA



LEGEND

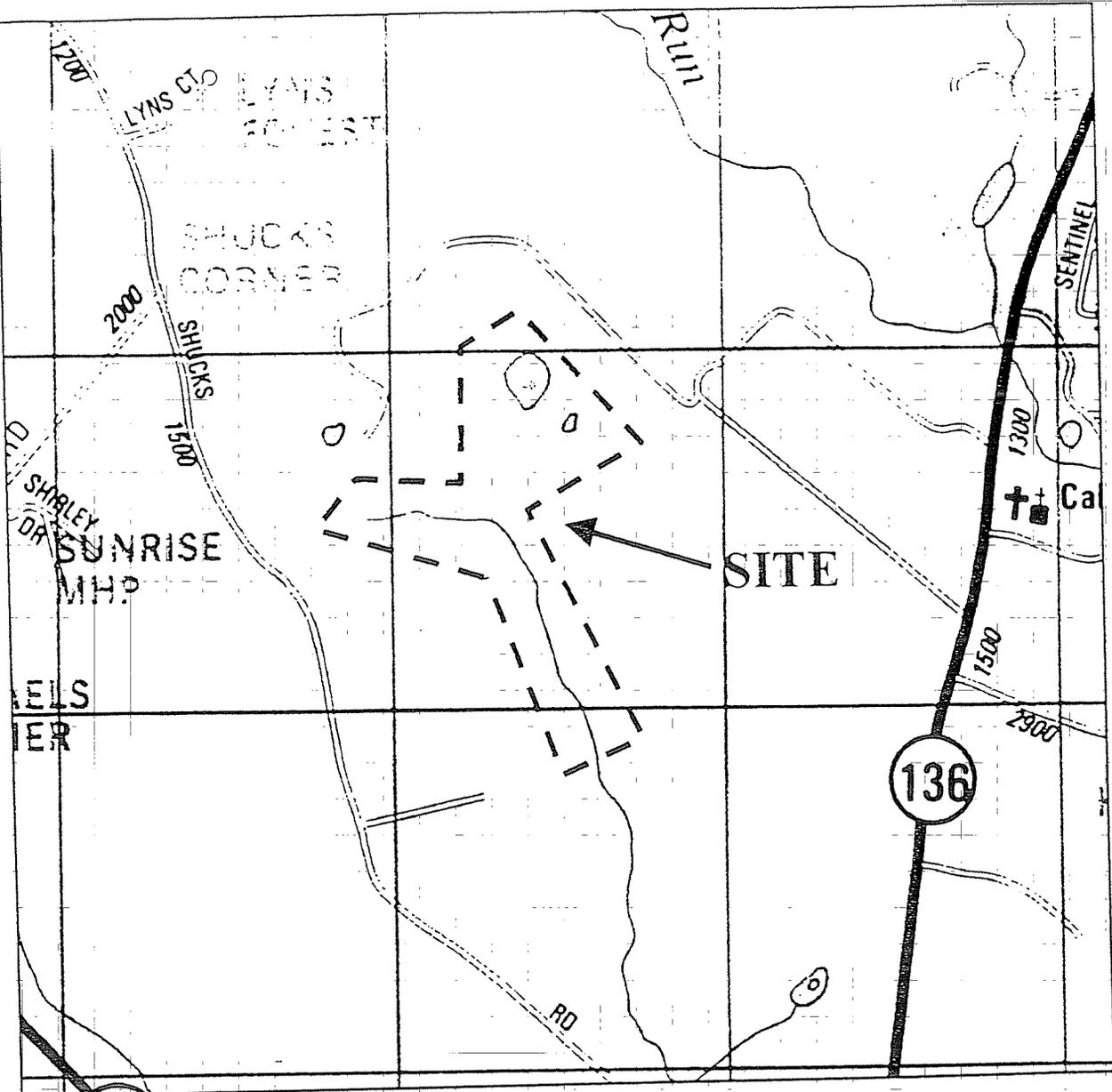
- 
 Conceptual Wetland Mitigation Area (+/- 5 acres)
- 
 Conceptual Stream Restoration (+/- 2,650 l.f.)

ECOTONE, INC.

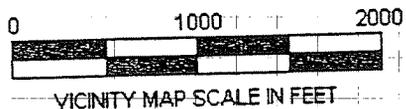
Rahl Property
 Potential Mitigation Site
 Winters Run Watershed, Harford County, MD
 SHA Contract HA888B12

DATE: SEPTEMBER 14, 2000

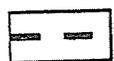
PREPARED FOR
 MD SHA



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LEGEND

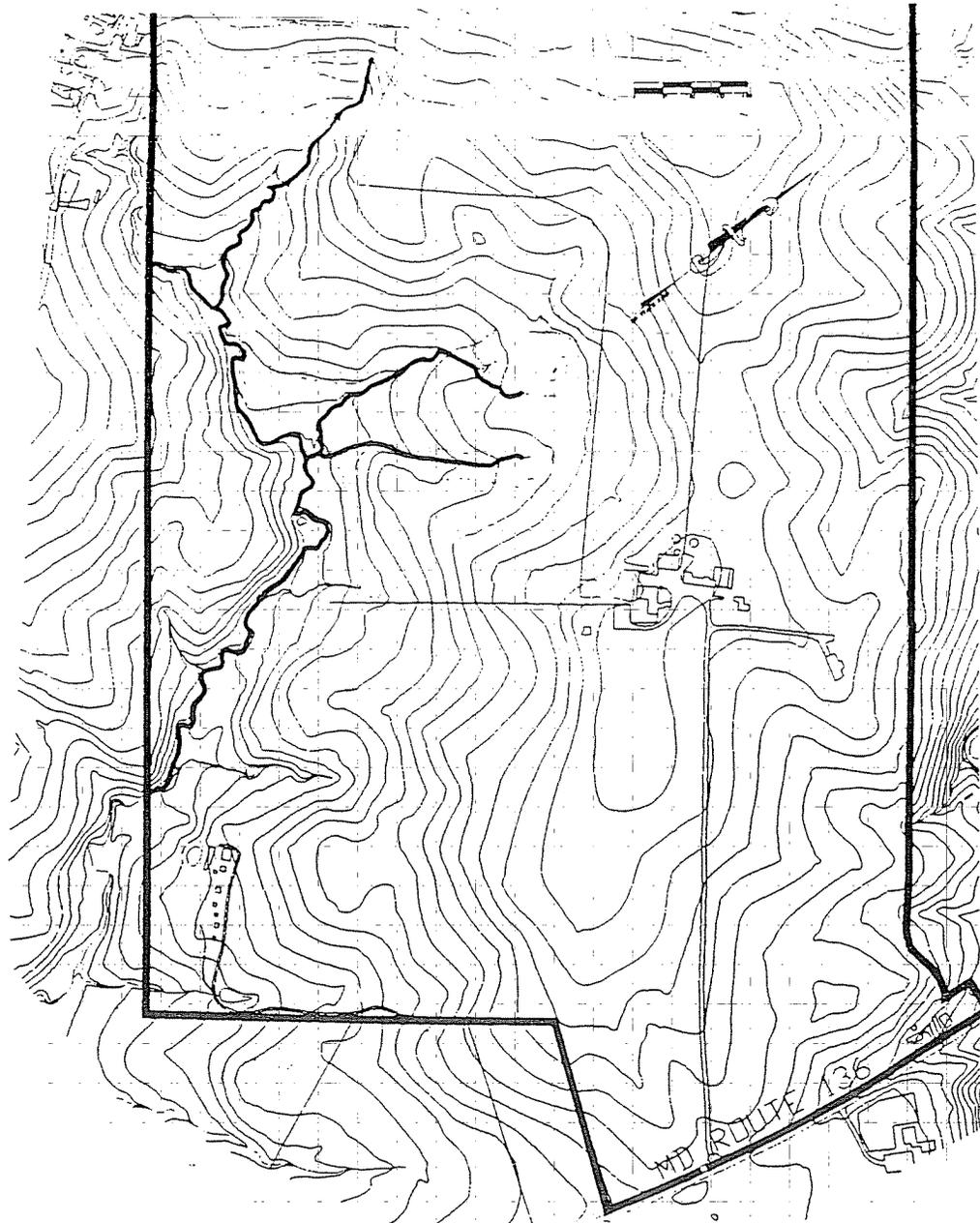
 Approximate Mitigation Area Locations

ECOTONE, INC.

Adams Property
 Potential Mitigation Site
 Bynums Run Watershed, Harford County, MD
 SHA Contract HA888B12

DATE: SEPTEMBER 14, 2000

PREPARED FOR:
 MD SHA



LEGEND



Conceptual Wetland Mitigation Area (+/- 4 acres)



Conceptual Stream Restoration (+/- 5,400 l.f.)

ECOTONE, INC.

Adams Property
 Potential Mitigation Site
 Bynum Run Watershed, Harford County, MD
 SHA Contract HA888B12

DATE: SEPTEMBER 14, 2000

PREPARED FOR:
 MD SHA

1.915

Table II Summary of Impacts	Alt 1 No - Build	Alt 3A	Alt 3B	Alt 4A	Alt 4B	Alt 5A	Alt 5b	Alt 4B Mod SHA Pref. Alt
Relocations Res. & Comm.	0	0	0	0	0	0	0	0
Affected Properties	0	9	9	9	9	9	9	9
Right-of-Way required - acs.	0	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Historic Sites	0	0	0	0	0	0	0	0
Archeological Sites	0	0	0	0	0	0	0	0
Wetlands + acs.	0	1.78	1.78	1.95	1.95	1.78	1.78	0.83
Waters of the U. S. - l. f.	0	1,385	1,570	1,555	1,790	1,375	1,560	1,540
Stream Crossings	0	17	18	18	19	17	18	18
100 - year Floodplain - acs.	0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Parklands - acs.	0	0	0	0	0	0	0	0
Woodlands - acs	0	16.69	16.69	16.30	16.20	13.19	13.19	16.30
Residential/Commercial	0	0	0	0	0	0	0	0
Noise Sensitive Areas (yr. 2020)	0	5	5	5	5	5	5	5
Air Quality (violations)	0	0	0	0	0	0	0	0
Consistant Comprehensive Plan	0	YES						
Cost (millions)	N/A	\$44	\$43	\$53.5	\$52.8	\$49	\$48	\$52.5



Maryland Department of Transportation
State Highway Administration

Parris N. Glendening
Governor
John D. Portari
Secretary
Parker F. Williams
Administrator

MEMORANDUM

TO: Ms. Marsha Kaiser, Director
Office of Planning and Capital Programming
Maryland Department of Transportation

FROM: Cynthia D. Simpson
Deputy Director *CDS*
Office of Planning and
Preliminary Engineering

DATE: October 11, 2000

SUBJECT: Project Consistency Report

RE: Project No. HA888B12
US 1 Bel Air Bypass
Harford County, Maryland

Enclosed is the Project Review Checklist and Project Consistency Report with comment sheets for the US 1 - Bel Air Bypass project, from MD 147 to north of the MD 24/MD 924 interchange in Harford County. The State Highway Administrator has selected Alternate 4/ Option B Modified, which was presented at the Interagency Review meeting on July 19 of this year. The SHA Selected Alternate proposes upgrading the existing roadway to an access-controlled divided highway. The existing at-grade intersection at MD 24/US 1 would be reconstructed to provide a trumpet interchange and the mainline roadway would be dualized. The MD 24/MD924 roadway approaching the interchange would also be widened to a four-lane divided highway. In addition, the existing Maryland Transit Authority Park 'n Ride Lot at the MD 24/MD 924 interchange with the Bel Air Bypass will be reconfigured and relocated south of the stream which now borders the lot.

Please submit this report to the Maryland Department of Planning. This will ensure consistency of the proposed project with the Maryland Economic Growth, Resource Protection and Planning Act of 1992. If you have any questions, please contact either the Project Manager, Mr. Monty Rahman at (410) 545-8524, or the Environmental Manager, Ms. Lorraine Strow at (410) 545-8697.

My telephone number is _____

Maryland Relay Service for Impaired Hearing or Speech
1-800-735-2258 Statewide Toll Free

Mailing Address: P.O. Box 717 • Baltimore, MD 21203-0717

Street Address: 707 North Calvert Street • Baltimore, Maryland 21202

Ms. Marsha Kaiser
US 1 Bel Air Bypass
Page Two

Enclosures

cc: Mr. Bruce Grey
Mr. Joseph Kresslein (w/enclosures)
Ms. Gay Olsen
Mr. Monty Rahman (w/enclosures)
Ms. Cynthia D. Simpson
Ms. Lorraine Strow (w/enclosures)
Mr. Jim Wynn

Project Review Checklist

(When complete, record determination on Project Consistency Report)

Project Title: US 1, Bel Air Bypass

Project Location: Harford County: MD 147 to MD 24/MD 924

(County and nearest major intersection)

Project Description: The SHA Selected Alternative, Alternate 4 with Option B Modified, would upgrade the existing roadway to an access-controlled divided highway. The existing at-grade intersection at MD 24/US 1 would be reconstructed as a trumpet interchange and the mainline roadway would be dualized. The MD 24/MD 924 roadway approaching the interchange would be widened to a four-lane divided. In addition, the existing Maryland Transit Authority Park'n Ride Lot at the MD 24/MD 924 interchange with the Bel Air Bypass would be reconfigured and relocated south of the stream which now borders the lot.

Approximate Funding Share

STATE	LOCAL	FEDERAL	OTHER
\$9.0 million	\$0	\$36.3 million	\$0

(Cost based on 80% Federal & 20% State)

Tier 1

Y N

- X 1. Does the project add capacity to an existing facility or provide new capacity for an area not currently served by the facility?
- X 2. Does the project facilitate changes in the existing pattern of growth?

If answer to either question is "yes" proceed to Tier 2

Tier 2

- X 1. Is the project consistent with the local comprehensive plan?
- X 2. Does the project support development in a suitable area, a designated development area, or a redevelopment area?
- X 3. Can the project be designed to prevent adverse impacts to sensitive areas?
- X 4. If in a rural area, does the project promote compact growth in existing population centers?
- X 5. Does the project provide opportunities to conserve resources?

X 6. Does the project promote economic growth and development in accordance with other elements of the State's Growth Policy?

Explain "no" answers on reverse. If determination is that project is "inconsistent," proceed to Tier 3.

Tier 3

1. Do extraordinary circumstances exist which make the project or action necessary to construct despite a finding of inconsistency in Tier 2? If so, document.
2. Is there no reasonably feasible alternative to the project? If so, document.

Determination: Consistent Inconsistent with extraordinary circumstances

Sponsor Agency Contact: Ms. Marsha Kaiser

Project Consistency Report
(File with Maryland Office of Planning)

This review is undertaken by the State of Maryland pursuant to SS-7A-02 of the State Finance and Procurement Article. Projects or actions are evaluated for consistency with the State's Economic Growth, Resource Protection, and Planning Policy in accordance with Executive Order 01.01.1992.27.

Project Title: US 1, Bel Air Bypass

Project Location: Harford County: MD 147 to MD 24/MD 924

Project Description The SHA Selected Alternative, Alternate 4 with Option B Modified, would upgrade the existing roadway to an access-controlled divided highway. The existing at-grade intersection at MD 24/US 1 would be reconstructed as a trumpet interchange and the mainline roadway would be dualized. The MD 24/MD 924 roadway approaching the interchange would be widened to a four-lane divided highway. In addition, the existing Maryland Transit Authority park'n ride lot at the MD 24/MD 924 interchange with the Bel Air Bypass will be reconfigured and relocated south of the stream which now borders the lot.

Approximate Funding Share

STATE	LOCAL	FEDERAL	OTHER
\$10.5 million	\$0	\$42 million	\$0

(Cost based on 80% Federal & 20% State)

Determination Consistent

Inconsistent with extraordinary circumstances

Brief description of extraordinary circumstances:

Sponsor Agency: Maryland Department of Transportation **Date:** October 6, 2000

Sponsor Agency Contact: Ms. Marsha Kaiser

Return to : State Clearinghouse
Maryland Office of Planning
301 West Preston Street
Baltimore, MD 21201
(410) 225-4500; FAX: (410) 225-4480

US 1 - Bel Air Bypass

Project Review Checklist Comments

SHA - Selected Alternate 4B Modified

TIER 1

1. Does the project add capacity to an existing facility or provide new capacity?

Yes The SHA Selected Alternate will add capacity to the existing facility. The existing roadway section would become the southbound lanes of the dual highway. Four lanes (two-lanes in each direction) are proposed from south of Winters Run to MD 24, and north of the MD 24/MD 924 interchange to the northern end of the project. The ultimate 78-foot median, which was planned in the early 1960's, was reduced to 34 feet to reduce environmental impact and to be consistent with the Hickory Bypass project. Between MD 24 and MD 24/MD 924, six lanes are proposed (three lanes in each direction).

2. Does the project facilitate changes in the existing pattern of growth?

No The SHA Selected Alternate would not change the existing pattern of growth. Growth is expected to occur within the Development Envelope adopted in both the 1977 Master Plan and the 1988 Land Use Plan. The improvement is within the county's development envelope.

TIER 2

1. Is the project consistent with the local comprehensive plan?

Yes The County's *Transportation Plan: An Element of the Harford County Master Plan*, January 1994 lists the improvement as a "priority."

2. Does the project support development in a suitable area, a designated development area, or a redevelopment area?

Yes The SHA Selected Alternate supports existing and new growth in areas designated for development (i.e., the Development Envelope shown in the Harford County Master Plan).

3. **Can the project be designed to prevent adverse impacts to sensitive areas?**
No The SHA Selected Alternate has been designed to minimize adverse impacts to sensitive areas by use of guardrail, retaining wall, reduced median, and bifurcated section along a 22-foot median. However, some impact will be unavoidable due to the location of sensitive wetland areas on both sides of the existing road. These impacts will be mitigated on a 2:1 basis for impacts to palustrine forested and palustrine scrub shrub wetlands and on a 1:1 basis for impacts to palustrine emergent wetlands.

4. **If in a rural area, does the project promote compact growth in population centers?**

Yes The SHA Selected Alternate supports growth within the County's designated Development Envelope and will not create new opportunities for unplanned growth in other areas of the County.

5. **Does the project provide opportunities to conserve resources?**

Yes The project would result in decreased travel times throughout the study area, thereby conserving energy, reducing traffic emissions and improving air quality.

6. **Does the project promote economic growth and development in accord with the other elements of the State's Growth Policy?**

Yes The project is expected to provide necessary improvements to the transportation network in order to support county and State goals regarding land use, development and economic growth.