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MARYLAND DEPARTMENT OF TRANSPORTATION

May 29, 2012

Project No. SM352A11
MD 5 Leonardtown (Point Lookout Road) Project Planning Study
From MD 243 to MD 245
St. Mary's County, Maryland

Enclosed for your information is the approved Environmental Assessment/Draft Section 4(f) Evaluation for the MD 5 Leonardtown Project Planning Study. This document has been prepared in accordance with 42 U.S.C. 4332(2)(c), 49 U.S.C. 303, 23 CFR 771, 23 CFR 774, and CEQ Regulations (40 CFR 1500 et seq.)

Please provide any comments by July 13, 2012 to the address below:

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Deputy Director
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707 North Calvert Street
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All responses will be considered in developing the final document.

Very truly yours,

A handwritten signature in black ink that reads "Gregory I. Slater".

Gregory I. Slater, Director
Office of Planning and
Preliminary Engineering

My telephone number/toll-free number is _____

Maryland Relay Service for Impaired Hearing or Speech 1.800.735.2258 Statewide Toll Free

May 29, 2012

Page 2

Attachment

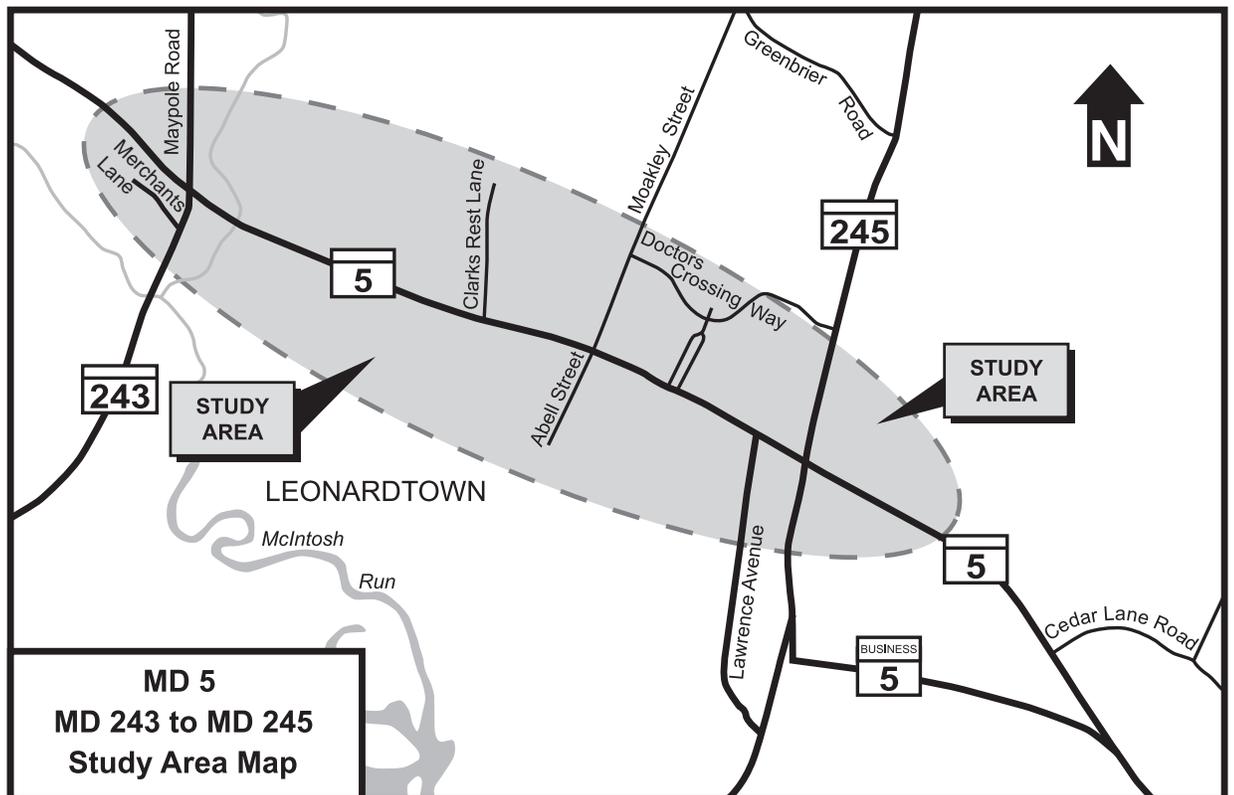
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ENVIRONMENTAL ASSESSMENT SECTION 4(f) EVALUATION

CONTRACT NO. SM 352A11

MD 5 (Point Lookout Road) Leonardtown
Maryland 243(Compton Road) to Maryland 245 (Hollywood Road)
St. Mary's County, Maryland



prepared by
U.S. Department of Transportation
Federal Highway Administration



and
Maryland Department of Transportation
State Highway Administration

FEDERAL HIGHWAY ADMINISTRATION
DELMAR DIVISION

MD 5 Leonardtown Project Planning Study
MD 5 (Point Lookout Road) from MD 243 to MD 245
St. Mary's County, Maryland

ADMINISTRATIVE ACTION

ENVIRONMENTAL ASSESSMENT/
DRAFT SECTION 4(f) EVALUATION

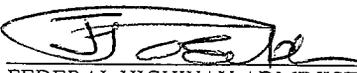
Submitted Pursuant to 42 U.S.C. 4332(2)(c), 49 U.S.C. 303,
23 CFR 771, 23 CFR 774, and the CEQ Regulations (40 CFR 1500 et seq.)

Prepared By:

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
DELMAR DIVISION

and

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

FOR 
FEDERAL HIGHWAY ADMINISTRATION
Division Administrator

5/24/12
Date


MARYLAND STATE HIGHWAY ADMINISTRATION
Director, Office of Planning and Preliminary Engineering

5/17/12
Date

SUMMARY

Administrative Action

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

Additional Information Concerning This Project May Be Obtained By Contacting

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Description of Proposed Action/Purpose and Need

The purpose of the MD 5 project, from MD 243 (Compton Road) to MD 245 (Hollywood Road), is to improve the vehicular safety and traffic operations along MD 5, while supporting existing and planned development in the area. Currently, MD 5 serves as the major gateway to Leonardtown, the St. Mary's County Seat. In addition, this project would also address pedestrian and bicycle safety and accommodate vehicular access to the residences, businesses, schools, the hospital and places of worship along MD 5. The MD 5 study area is consistent with the 2007 Highway Needs Inventory.

Development of Preliminary Alternatives

The following alternatives were presented to the public during the December 2007 Informational Open House as preliminary typical section concepts. Subsequent to the meeting, three build alternatives and two avoidance options were developed, along with the no-build alternative.

Alternative 1 – No-Build

No major improvements are proposed with Alternative 1, the No-Build Alternative. Minor short-term improvements would occur as part of the normal maintenance and safety projects. This alternative does not address the Purpose and Need for the project. However, it serves as a baseline for comparing the impacts and benefits of other proposed alternatives.

Alternative 2 – Transportation Systems Management (TSM)

The Transportation Systems Management (TSM) Alternative consists of a wide range of spot improvements throughout the corridor that address the most serious concerns at specific locations or intersections of roadway. TSM improvements generally could be constructed with relatively low costs. Examples of TSM improvements that may be considered for the MD 5 corridor include:

- Provide a double left from MD 5 westbound to MD 243 southbound
- Provide a double right from MD 243 northbound to MD 5 eastbound
- Add an Exclusive right turn lane from MD 5 eastbound to MD 5 Business (Washington Avenue) southbound
- Provide a double right from MD 245 southbound to MD 5 eastbound

Alternative 3 – Five Lane Section

Alternative 3 consists of the addition of a 13-foot-wide continuous turn lane to the median of MD 5 along with intersection improvements throughout the corridor. A 12-foot-wide inside travel lane and 16-foot-wide outside travel lane to accommodate bicycle access as well as horse-drawn vehicles. A five-foot sidewalk would be provided along both sides of MD 5 throughout the entire corridor. Raised medians for ADA compliance are proposed at the MD 243 and MD 245 intersections, new signalized intersections at MD 5 and Clark's Rest Lane and Abell/Moakley Streets. In addition, to include all of the improvements proposed under Alternative 2.

Alternative 4 – Four Lane Divided

Alternative 4 proposes the addition of a continuous median for MD 5 with left-turn lanes provided at the major intersections. A 12-foot-wide inside travel lane and 16-foot-wide outside travel lane to accommodate bicycle access as well as horse-drawn vehicles. A five-foot sidewalk would be provided along both sides of MD 5 throughout the entire corridor. The intersections at MD 243 and MD 245 includes the improvements proposed under Alternative 2.

Options for Alternatives 3 and 4

- Option 1 – 4(f) Minimization – This option deviates from the existing centerline to minimize impacts to historic or cultural resource properties (Section 4(f) impacts). Impacts to the historic Drury-Saunders House at the MD 5 and MD 245 intersections were unavoidable by any of the build alternatives.
- Option 2 – Stream Avoidance – This option deviates from the existing centerline to avoid the longitudinal stream impact and the historic site (Gough Farm) located on the north side of MD 5 between Abell/Moakley Streets and Clark’s Rest Lane.
- Option 3 – Additional Intersection Improvements – This option expands the intersections along MD 5 beyond what is proposed in all of the build alternatives to accommodate additional left turning movements and storage capacity to achieve an improved level of service. All of the approaches except for MD 5 westbound will have double left turning bays. This option also includes a traffic signal at MD 245/Merchants Lane and a jug handle movement at the MD 5 at Abell/Moakley Streets to accommodate U-turning vehicles as part of Alternative 4.

Alternatives Recommended for Detailed Study

The alternatives retained for detailed study are as follows:

- **Alternative 1 – No Build** is recommended to be retained for detailed study as the basis for comparison.
- **Alternative 2 – TSM** is recommended to be retained for detailed study because it would provide a low-cost interim improvement to the other build alternatives. Elements of TSM are already included in the other build alternatives.
- **Alternative 3 – Five Lane Section** is recommended to be retained for detailed study because it provides left turning bays for specific locations as a refuge for left-turning vehicles, increases capacity at the intersection, and addresses safety conditions for the Amish community and bicyclists, and provides a continuous sidewalk for all pedestrians.
- **Alternative 4 – Four Lane Divided** is recommended to be retained for detailed study because it provides left turning bays for specific locations as a refuge for left-turning vehicles, increases capacity at the intersection, and addresses safety conditions for the Amish community and bicyclists, and provides a continuous sidewalk for all pedestrians.
- **Option 2 – Stream Avoidance** is recommended to be retained for detailed study because it meets the purpose and need requirements and it avoids impacts to the unnamed tributary to McIntosh Run that was identified as a concern to the resource agencies.
- **Option 3 - Additional Intersection Improvements** is recommended to be retained for detailed study because it meets the purpose and need requirements.

Alternative Added for Detailed Study

- **Option 4 - Shopping Center Modified Access** - Same improvements as Alternative 4 with the exception of the improvements for the MD 5/MD 243 Intersection. The intersection of MD 5 at MD 245 has the same lane configuration as Alternative 4. At the MD 5 intersection with MD 243, the right turn movement from MD 243 onto Merchant's Lane and the left-out from Merchant's Lane are prohibited. A double left-turn into the shopping plaza from north-bound

MD 5 has been added further west at the location of the existing right-in/right-out entrance with MD 5 northbound and the shopping plaza. The restriction of movements onto Merchant's lane helps reduce the length of the left run bays for northbound MD 5 at MD 243. A traffic signal would be added.

Alternatives Not Recommended for Detailed Study

- **Option 1 – Section 4(f) Minimization** was not recommended for further study as a standalone option due to the magnitude of displacements associated with the option (i.e., Alternative 4 with Option 1 has a total of 22 displacements as compared to a maximum of 14 with other alternatives/options being considered). Efforts to avoid or minimize impacts to Section 4(f) resources are included in the other build alternatives. Option 1 is evaluated only as a minimization option in the Section 4(f) Evaluation (Section IV).

Summary of Impacts

Impacts to the Natural Environment are shown on Table III-4. All alternatives impact the 100-Year Floodplain (3.7-5.6 acres), streams (692-1,707 linear feet), and wetlands (0.45-1.17) as well as up to 0.5 acre of Wetlands of Special State Concern and its 100-foot buffer (1-6.63 acres). The proposed improvements would all impact less than one acre of Forest Interior Dwelling Species (FIDS) and forested wetlands. Upland forest impacts would range between 3.14 acres to 7.5 acres of impact while Green Infrastructure impacts range between 1-3 acres. The project would impact approximately 4-10 acres of Prime Farmland Soils and Soils of Statewide Importance.

ENVIRONMENTAL ASSESSMENT FORM

| | <u>YES</u> | <u>NO</u> | <u>COMMENTS</u> |
|---|----------------------|----------------------|----------------------|
| A. Land Use Considerations | | | |
| 1. Will the action be within the 100-year floodplain? | <u>X</u> | <u> </u> | <u> X </u> |
| 2. Will the action require a permit for construction or alteration within the 50 year floodplain? | <u> </u> | <u> X </u> | <u> </u> |
| 3. Will the action require a permit for dredging, filling, draining or alteration of a wetland? | <u> X </u> | <u> </u> | <u> X </u> |
| 4. Will the action require a permit for the construction or operation of facilities for solid waste disposal including dredge and excavation spoil? | <u> </u> | <u> X </u> | <u> </u> |
| 5. Will the action occur on slopes exceeding 15%? | <u> </u> | <u> X </u> | <u> X </u> |
| 6. Will the action require a grading plan or a sediment control permit? | <u> X </u> | <u> </u> | <u> X </u> |
| 7. Will the action require a mining permit for deep or surface mining? | <u> </u> | <u> X </u> | <u> </u> |
| 8. Will the action require a permit for drilling gas or oil well? | <u> </u> | <u> X </u> | <u> </u> |
| 9. Will the action require a permit for airport construction? | <u> </u> | <u> X </u> | <u> </u> |
| 10. Will the action require a permit for the crossing of the Potomac River by conduits, cables or other like devices? | <u> </u> | <u> X </u> | <u> </u> |
| 11. Will the action affect the use of a public recreation area, park, forest, wildlife management area, scenic river or wildland? | <u> X </u> | <u> </u> | <u> X </u> |
| 12. Will the action affect the use of any natural or manmade features that are unique to the county, state, or nation? | <u> X </u> | <u> </u> | <u> X </u> |
| 13. Will the action affect the use of an archaeological or historical site or structure? | <u> X </u> | <u> </u> | <u> X </u> |

YES NO COMMENTS

B. Water Use Considerations

- | | | | |
|--|---------------|---------------|----------------------|
| 14. Will the action require a permit for the change of the course, current, or cross-section of a stream or other body of water? | <u> X </u> | <u> </u> | <u> X </u> |
| 15. Will the action require the construction, alteration, or removal of a dam, reservoir, or waterway obstruction? | <u> </u> | <u> X </u> | <u> </u> |
| 16. Will the action change the overland flow of stormwater or reduce the absorption capacity of the ground? | <u> X </u> | <u> </u> | <u> X </u> |
| 17. Will the action require a permit for the drilling of a well? | <u> </u> | <u> X </u> | <u> </u> |
| 18. Will the action require a permit for water appropriation? | <u> </u> | <u> X </u> | <u> </u> |
| 19. Will the action require a permit for the construction and operation of facilities for treatment of distribution of water? | <u> </u> | <u> X </u> | <u> </u> |
| 20. Will the project require a permit for the construction and operation of facilities for treatment and/or land disposal of liquid waste derivatives? | <u> </u> | <u> X </u> | <u> </u> |
| 21. Will the action result in any discharge into surface or sub-surface water? | <u> X </u> | <u> </u> | <u> X </u> |
| 22. If so, will the discharge affect ambient water quality parameters and/or require a discharge permit? | <u> X </u> | <u> </u> | <u> X </u> |

C. Air Use Consideration

- | | | | |
|---|---------------|---------------|----------------------|
| 23. Will the action result in any discharge into the air? | <u> X </u> | <u> </u> | <u> X </u> |
| 24. If so, will the discharge affect ambient air quality parameters or produce a disagreeable odor? | <u> </u> | <u> X </u> | <u> </u> |

25. Will the action generate additional noise, which differs in character or level from present conditions? X X

26. Will the action preclude future use of related air space? X

27. Will the action generate any radiological, electrical, magnetic, or light influences? X

D. Plants and Animals

28. Will the action cause the disturbance, reduction or loss of any rare, unique or valuable plant or animal? X X

29. Will the action result in the significant reduction or loss of any fish or wildlife habitats? X X

30. Will the action require a permit for the use of pesticides, herbicides or other biological, chemical or radiological control agents? X

E. Socioeconomic

31. Will the action result in a preemption or division of properties or impact their economic use? X X

32. Will the action cause relocation of activities, structures, or result in a change in the population density or distribution? X X

33. Will the action alter land values? X X

34. Will the action affect traffic flow and volume? X X

35. Will the action affect the production, extraction, harvest or potential use of a scarce or economically important resource? X

36. Will the action require a license to construct a sawmill or other plant for the manufacture of forest products? X

37. Is the action in accordance with federal, state, regional and local comprehensive or functional plans—including zoning? X X

38. Will the action affect the employment opportunities for persons in the area? X X

39. Will the action affect the ability of the area to attract new sources of tax revenue? X X

40. Will the action discourage present sources of tax revenue from remaining in the area to attract new sources of tax revenue? X

41. Will the action affect the ability of the area to attract tourism? X

F. Other Considerations

42. Could the action endanger the public health, safety or welfare? X

43. Could the action be eliminated without deleterious effects to the public health, safety, welfare or the natural environment? X X

44. Will the action be of statewide significance? X

45. Are there any other plans or actions (federal, state, county or private) that, in conjunction with the subject action, could result in a cumulative or synergistic impact on the public health, safety, welfare, or environment? X X

46. Will the action require additional power generation or transmission capacity? X

47. This agency will develop a complete environmental effects report on the proposed action? X X

TABLE OF CONTENTS

| | <u>Page No.</u> |
|---|-----------------|
| SUMMARY | S-1 |
| ENVIRONMENTAL ASSESSMENT FORM (EAF) | S-6 |
| TABLE OF CONTENTS | i |
| | |
| I. PURPOSE AND NEED | I-1 |
| A. Project Location | I-1 |
| B. Project Background | I-1 |
| C. Land Use and Planned Development | I-1 |
| D. Project Purpose | I-5 |
| E. Need for the Project | I-6 |
| 1. Traffic Volumes and Analysis | I-6 |
| 2. Safety | I-8 |
| II. ALTERNATIVES CONSIDERED | II-1 |
| A. Alternatives Presented at the Alternatives Public Workshop | II-1 |
| 1. Alternative 1-No-Build | II-1 |
| 2. Alternative 2 - Transportation Systems Management (TSM) | II-1 |
| 3. Alternative 3 – Five Lane Roadway | II-2 |
| 4. Alternative 4 – Four Lane Divided Roadway | II-2 |
| 5. Options for Alternatives 3 and 4 | II-2 |
| B. Alternatives Dropped From Consideration | II-4 |
| 1. Option 1 – Section 4(f) Avoidance | II-4 |
| C. Alternatives Retained for Detailed Study | II-4 |
| 1. Alternative 1-No-Build | II-4 |
| 2. Alternative 2-Transportation Systems Management (TSM) | II-4 |
| 3. Alternative 3 – Five Lane Roadway | II-5 |
| 4. Alternative 4 – Four Lane Divided Roadway | II-6 |
| 5. Options for Alternatives 3 and 4 | II-6 |
| III. EXISTING ENVIRONMENT AND IMPACTS ANALYSIS | III-1 |
| A. Social, Economic, and Land Use Considerations | III-1 |
| 1. Social Environment | III-1 |
| 2. Economic Environment | III-25 |
| 3. Land Use | III-26 |
| 4. Livability Principles and Sustainability | III-2631 |
| B. Cultural Resources | III-32 |
| C. Natural Environment | III-35 |
| 1. Green Infrastructure | III-35 |
| 2. Geology, Topography and Soils | III-36 |
| 3. Aquatic Resources | III-38 |
| 4. Floodplains | III-39 |
| 5. Vegetation and Wildlife | III-39 |
| 6. Rare, Threatened and Endangered Species | III-40 |
| D. Air Quality | III-43 |

| | | |
|------------|---|-------------|
| E. | Noise Conditions | III-50 |
| 1. | Noise Effects..... | III-51 |
| F. | Hazardous Materials | III-58 |
| G. | Indirect and Cumulative Effects Analysis (ICE)..... | III-64 |
| 1. | Scoping | III-64 |
| 2. | Land Use..... | III-79 |
| 3. | Historic Properties | III-94 |
| 4. | Analysis | III-95 |
| 5. | 100-Year Floodplains | III-103 |
| 6. | Surface Waters and Wetlands..... | III-105 |
| 7. | Wildlife Habitat | III-109 |
| 8. | Green Infrastructure..... | III-113 |
| 9. | Agricultural Land and Farmland Soils | III-115 |
| 10. | Historic Properties | III-118 |
| 11. | Community Resources..... | III-120 |
| H. | Conclusions and Mitigation | III-124 |
| IV. | DRAFT SECTION 4(f) EVALUATION..... | IV-1 |
| V. | COMMENTS AND COORDINATION | IV-1 |
| VI. | BIBLIOGRAPHY | V-1 |

APPENDIX A. Uniform Relocation Assistance Act

APPENDIX B. Comments and Coordination Correspondence

LIST OF TABLES

| | |
|--|---------|
| Table I-1 – Existing and Future Average Daily Traffic (ADT)..... | I-7 |
| Table I-2 – Synchro Level of Service(LOS) Breakdown | I-8 |
| Table I-3 – Existing and 2030 No-Build Level of Service Analysis | I-8 |
| Table I-4 – MD 5 Crash History from 2008 to 2010 | I-9 |
| Table III-1: Population and Housing Characteristics, 1990 to 2030 | III-1 |
| Table III-2: Racial and Ethnic Characteristics of County and Study Area Block Groups | III-3 |
| Table III-3: Community Impacts by Alternative | III-431 |
| Table III-4: Natural Environment Summary of Impacts Affected..... | III-43 |
| Table III-5 MD 5/MD 243 Intersection Carbon Monoxide Concentrations..... | III-48 |
| Table III-6 MD 5/MD 245 Intersection Carbon Monoxide Concentrations..... | III-49 |
| Table III-7: Noise Analysis Summary | III-52 |
| Table III-8: Hazardous Waste Sites within the Study Area..... | III-59 |
| Table III-9: Hazardous Waste Site Impacts by Alternative | III-62 |
| Table III-10: ICE Analysis Resources and Effects | III-66 |
| Table III-11: Employment Trends, 1970 – 2040 | III-69 |
| Table III-12: Historic Land Use/Land Cover Changes in St. Mary’s County | III-80 |
| Table III-13: Existing Land Cover and Resources In ICE Geographic Boundary | III-85 |
| Table III-14: Recent and Proposed Local Development In MD 5 ICE Geographic Boundary..... | III-91 |
| Table III-15: Historic Properties Within the ICE Geographic Boundary | III-94 |
| Table III-16: Summary of Direct and Cumulative Impacts | III-98 |
| Table IV-1: Summary of Section 4(f) Uses | IV-11 |
| Table IV-2: Least Overall Harm Analysis | IV-28 |
| Table V-1: Purpose and Need Coordination..... | V-1 |
| Table V-2: Alternatives Retained for Detailed Study Coordination..... | V-2 |
| Table V-3: Agency Correspondence..... | V-3 |
| Table V-4: Streamlined Process Meeting Minutes | V-4 |

LIST OF FIGURES

| | |
|---|-------|
| Figure I-1: Vicinity Map..... | I-11 |
| Figure II-1: Typical Section: Alternatives 1, 3, and 4 | II-8 |
| Figure II-2: Alternative 2 - TSM | II-9 |
| Figure II-3: Alternative 2 - TSM | II-10 |
| Figure II-4: Alternative 2 - TSM | II-11 |
| Figure II-5: Alternative 3 – 5 Lane Section | II-12 |
| Figure II-6: Alternative 3 – 5 Lane Section | II-13 |
| Figure II-7: Alternative 3 – 5 Lane Section | II-14 |
| Figure II-8: Alternative 3 – 5 Lane Section | II-15 |
| Figure II-9: Alternative 4 – 4 Lane Section..... | II-16 |
| Figure II-10: Alternative 4 – 4 Lane Section..... | II-17 |
| Figure II-11: Alternative 4 – 4 Lane Section..... | II-18 |
| Figure II-12: Alternative 4 – 4 Lane Section..... | II-19 |
| Figure II-13: Alternative 4 Option 2 – Stream Avoidance | II-20 |

| | |
|--|---------|
| Figure II-14: Alternative 4 Option 2 – Stream Avoidance | II-21 |
| Figure II-15: Alternative 4 Option 3–Additional Intersection Improvements..... | II-22 |
| Figure II-16: Alternative 4 Option 3–Additional Intersection Improvements..... | II-23 |
| Figure II-17: Alternative 4 Option 4–Shopping Access Modification | II-24 |
| Figure III-1: 2000 Census Tracts | III-2 |
| Figure III-2: Community Facilities and Services..... | III-19 |
| Figure III-3: Existing Land Use..... | III-29 |
| Figure III-4: Future Land Use Developments..... | III-30 |
| Figure III-5: Air Quality Receptor Locations (1) | III-46 |
| Figure III-6: Air Quality Receptor Locations (2) | III-47 |
| Figure III-7: Noise Receptor Locations (1) | III-56 |
| Figure III-8: Noise Receptor Locations (2) | III-57 |
| Figure III-9: Map of Hazardous Waste Sites within the Study Area..... | III-63 |
| Figure III-10: Percent Population Change from Previous Decade | III-67 |
| Figure III-11: ICE Boundary | III-77 |
| Figure III-12: Past Land Use | III-81 |
| Figure III-13: Existing Land Cover | III-82 |
| Figure III-14: Existing Land Use | III-83 |
| Figure III-15: 2030 Land Use Concepts | III-88 |
| Figure III-16: Proposed Local Development and Transportation Improvements | III-89 |
| Figure III-17: Natural Resources | III-99 |
| Figure III-18: Cultural Resources, Forestland and Agricultural Land | III-100 |
| Figure III-19: Green Infrastructure | III-101 |
| Figure III-20: Prime and Statewide Farmland Soils | III-102 |
| Figure IV-1: Project Location Map | IV-3 |
| Figure IV-2: Section 4(f) Properties | IV-8 |
| Figure IV-3: Port of Leonardtown Property 4(f) Impact Plate | IV-13 |
| Figure IV-4: Drury-Sanders House and St. Mary’s Academy Properties 4(f) Impact Plate | IV-14 |
| Figure IV-5: Gough Property 4(f) Impact Plate | IV-17 |
| Figure IV-6: Buena Vista Property 4(f) Impact Plate | IV-18 |

I. PURPOSE AND NEED

A. Project Location

The project is located within the incorporated limits of the Town of Leonardtown in Saint Mary's County, Maryland. The study area extends from approximately 1,000 feet north of MD 243, Newtowne Neck Road, to approximately 1,000 feet south of MD 245, Hollywood Road, a distance of approximately two miles. MD 5, Point Lookout Road, is classified as a Rural Minor Arterial and is an east-west route that extends from Point Lookout in southern St. Mary's County west to MD 235. It is on Maryland's Secondary System and provides a parallel route to MD 235 which is classified as a Rural/Urban Other Principal Arterial on the National Highway System. MD 5 provides the major gateway to Leonardtown as well as direct access to properties along the corridor and serves through traffic south to Point Lookout and north to Charles County.

B. Project Background

The MD 5 Project Planning study was initiated in January 2007, after the completion of a feasibility study in 2005, and will evaluate potential transportation and safety improvements. The MD 5 project is consistent with the goals and objectives of the State, regional, and local planning and include the following Master Plan documents: Maryland State Highway Administration's (SHA's) long range plan, the Highway Need's Inventory (HNI) and St. Mary's County 2006 Transportation Plan and Tri-County Council's for Southern Maryland, FY 2007 Regional Transportation Needs Inventory (as a County Project of Regional Importance). Support for the project is also noted in Leonardtown's 2004 Comprehensive Land Use Plan. Additional support for this project is included in St. Mary's County's May 22, 2007 priority letter to the Maryland Department of Transportation (MDOT).

C. Land Use and Planned Development

The municipality of Leonardtown is a County designated Priority Funding Area (PFA) that includes a Neighborhood Revitalization Area in the older portion of the town (includes the Leonardtown Wharf "Priority Place" project). The Leonardtown Development District includes

the town and an area that extends east and north of the town and is identified as a County Certified Priority Funding Compliance Area (St. Mary's Comprehensive Plan, 2010). The town has also been identified as a Target Investment Zone (TIZ), a specific priority area intended to attract private investment using incentives available through the Maryland Heritage Preservation and Tourism Areas Program.

Over the past ten years the Leonardtown area has experienced an influx of economic, commercial, residential and institutional development. The downtown area has seen a resurgence of new stores and restaurants. The surrounding area has become an educational center for St. Mary's County with a branch of the College of Southern Maryland Community College, Leonardtown High, Middle and Elementary Schools, St. Mary's Ryken High School, Leonardtown Junior Naval Academy, Father Andrew White School, and the St. Mary's Technical Center. In 2004, St. Mary's Hospital transformed itself with a major expansion and renovation. The 216,859 square-foot complex employs a staff of over 1,000 individuals. Leonardtown also serves as the county seat housing the courthouse as well as municipal, county, state and federal agencies. From 1996 through 2001, St. Mary's County saw a 9.2 percent increase in population, well over the statewide average of 4.8 percent. The County estimated its population would increase from 90,044 (per the 2000 census) to 100,800 by 2010.

The entire project area falls within the town limits of Leonardtown and consists of mixed land use. The St. Mary's County branch of the College of Southern Maryland community college is located in the northeastern quadrant of the MD 5/MD 245 intersection. The Father Andrew White School is located in the southeastern quadrant of the MD 5/MD 245 intersection. Commercial properties, a hospital, church, graveyard, and a few residential properties exist adjacent to the north side of MD 5, from MD 245 to Moakley Street. The Estates at Singletree, a residential community consisting of 163 single family homes, parallels Moakley Street north of MD 5. The primary access to and from the community is via Moakley Street to MD 5. The area south of MD 5, from MD 245 to Abell Street, is primarily residential with a few commercial properties located in the southwestern quadrant of the MD 5/MD 245 intersection. There is a short strip of commercial properties on the south side of MD 5 and an electrical power transformer unit on the north side of MD 5, both located mid-way between Abell Street and

MD 243. The remaining properties on both the north and south sides of MD5 from Abell Street to MD 243 are currently undeveloped.

Several mixed use and commercial developments are proposed along both sides of MD 5 between Abell/Moakley Streets and MD 243, including Clark's Rest, Tudor Hall, and the Macintosh Run Shopping Center. Land use at the MD 5/MD 243 intersection is all commercial, supporting several fast food restaurants, a strip shopping center and gas station. Several residential communities (Breton Bay, Breton Woods, and Compton) and the Breton Bay Country Club are located south of Leonardtown. The only access to and from this area is via MD 243. The land use along MD 5 Bus. south of MD 5 is commercial. Over half of the land within Leonardtown is currently zoned as agricultural, consisting of farmland or woodland. A major goal of the Town's proposed land use plan identified in the 2004 Comprehensive Land Use Plan is to promote the expansion of the Commercial Business District. As part of this plan, the 968 acres of vacant land within the Town is envisioned to be zoned as Planned Unit Development-Mixed Use, which would provide flexibility for future developments.

The following is a list of proposed developments along MD 5 from MD 245 to MD 243.

- McIntosh Run Shopping Center – A six acre mixed use project with a 47,000 sq. foot complex consisting of a small hotel, restaurant, office suites and retail shops. It is a redevelopment of the Pennies Bar and ball field site. The site is located on the western limits of the existing commercial strip which is midway between Abell Street and MD 243. Although there has been no recent activity on the project, the owner is still actively pursuing development.
- Clark's Rest (Clark Farm) – A 178 acre mixed use project with concept approval for 212 single family homes, 112 townhouses and 73,000 sq. feet of limited commercial/office space. Twenty-six acres of the site have been dedicated to public use and a new elementary school. The town has requested the developer located the proposed entrance opposite the Tudor Hall Village entrance. A signal is anticipated. The town has also required the project to provide a connection to Leonard's Grant development. Part of the development will include a new elementary school. The site is located on the north side

of MD 5 and extends from just west of Moakley Street to a point midway between Moakley Street and MD 243. The developer is breaking ground in May 2012 for the first phase of the residential development.

- Elementary School – This complex consists of a two story elementary school and athletic fields and is proposed as part of the Clark Farm site improvements. The town has requested a separate entrance (possibly a right in and right out) from Clark’s Rest. The site is located on the north side of MD 5 approximately midway between Moakley Street and MD 243. This school is no longer being proposed as part of the Clark’s Rest development.
- Tudor Hall – A 390 acre mixed use project approved for 593 homes (single family, condo and townhouses), commercial and hotel/conference center. A main spine road would be provided from MD 5 to the downtown. The town has required the spinal road to be located opposite the entrance to Clark’s Rest. A signal is anticipated. The site is located on the south side of MD 5 midway between Abell Street and MD 243. This development is not currently active.
- Joe Stone Office Building – A proposed 8,000 square-foot two story office building that would replace the existing structure. The proposed concept shows only a 36 foot setback versus the 50 foot setback required by the town. Consequently any proposed widening (for the roadway and sidewalk) for the project would impact the proposed site. The site is located on the south side of MD 5 on the eastern edge of the existing commercial strip which is located midway between Abell Street and MD 243. This development is not currently active.
- Leonard’s Grant – A 263 acre project consists of 325 single family residential units. The primary access is off of MD 245 with a connecting road to MD 5 through the proposed Clark’s Rest development. This development is currently approximately 50% complete.
- Port of Leonardtown – This is a three acre site, owned by the town of Leonardtown, located near the MD 5/MD 243 intersection, immediately adjacent to the Taco Bell Property. The project includes a winery and vineyard demonstration area, picnic area, and kayak launch into McIntosh Run. One of the existing buildings on the site has been renovated to house a winery and tour headquarters. Another building provides

concessions, restrooms, and storage. The winery is complete and operational. Some park improvements were completed in 2011 and other improvements are planned in 2012.

D. Project Purpose

The purpose of the MD 5 project is to improve the vehicular safety and traffic operations along MD 5 through Leonardtown, while supporting existing and planned development in the area. Currently, MD 5 serves as the major gateway to Leonardtown, the St. Mary's County Seat. In addition, this project would also address pedestrian and bicycle safety and accommodate vehicular access to the residences, businesses, schools, St. Mary's Hospital and places of worship along MD 5. The MD 5 study area is consistent with the 2007 SHA Highway Needs Inventory.

E. Need for the Project

Improvements along the MD 5 corridor in Leonardtown are needed to improve vehicular and pedestrian mobility, address safety concerns and provide adequate intersection capacity and facilitate access for the existing traffic and planned development which will address projected traffic growth in the area. The study will also evaluate necessary improvements to the intersection configurations along the MD 5 corridor to ensure sufficient capacity, along safety improvements for pedestrian and, bicycle traffic and accommodations for horse-and-buggy traffic associated with the Amish communities within the surrounding area.

1. Traffic Volumes and Analysis

The increasing growth and development within the MD 5 corridor and the surrounding area has greatly contributed to the increased travel demand and congestion on MD 5 through the Leonardtown area. The Town of Leonardtown is also experiencing substantial redevelopment activity along MD 5. Vehicular congestion and delays are expected to worsen with the continued growth projected in Leonardtown, St. Mary's County and the Southern Maryland region.

The adequacy of roadway capacity is determined using a measure called the volume-to-capacity (v/c) ratio. The v/c ratio is the ratio of the peak hour volume carried by a roadway or intersection and its hourly capacity expressed in vehicles per hour. Roadways may have traffic volumes that exceed or are forecasted to exceed capacity. This would result in a v/c ratio that exceeds 1.00 and indicates the need for capacity improvements. If existing or future capacity levels are sufficient, the v/c ratio will be less than 1.00.

The Average Daily Traffic (ADT) for MD 5 is expected to increase due to the planned and proposed developments in the area. The ADT along MD 5 is forecasted to increase by more than 75% by the design year 2030 in the project area (see Table I-1). For the section of MD 5 between MD 243 and MD 245, the existing 2007 ADT is 28,750 vehicles per day (vpd) and is forecast to increase to 50,750 vpd by the design year 2030. The ADT for MD 243 will increase from 8,000 vpd in 2007 to 14,125 vpd during that same period, also with a percent growth of

more than 75%. The ADT for MD 245 and MD 5 Business are forecasted to increase 58% from 12,050 vpd to 19,000 vpd, and from 7,975 vpd to 12,575 vpd, respectively.

Table I-1 – Existing and Future Average Daily Traffic (ADT)

| Location | 2007 Existing ADT | 2030 No Build ADT | Percent Growth |
|--|--------------------------|--------------------------|-----------------------|
| MD 5 west/north of Maypole Rd./MD 243 | 23,475 | 41,425 | 76.46% |
| MD 5 between MD 243 and MD 245/MD 5 Bus. | 28,750 | 50,750 | 76.52% |
| MD 5 east/south of MD 245/MD 5 Bus. | 27,400 | 48,350 | 76.46% |
| MD 243 south of MD 5 | 8,000 | 14,125 | 76.56% |
| MD 245 north of MD 5 | 12,050 | 19,000 | 57.68% |
| MD 5 Bus./Washington St. south of MD 5 | 7,975 | 12,575 | 57.68% |

Level of Service (LOS) is a scale measuring the freedom of mobility or severity of congestion experienced by drivers. The LOS scale ranges from A to F. LOS A represents free flow movements of traffic with little or no congestion. LOS F represents failure with stop-and-go conditions and long queues of traffic. LOS D occurs near a critical boundary where traffic flows become unstable. This level is generally considered acceptable during peak hours of traffic flow on streets and highways in urban and suburban areas. At LOS E, the roadway is operating near capacity with unpredictable daily delays. LOS is normally determined for the peak hours of the typical weekday. These levels have been determined through traffic research and are related to measurable traffic characteristics such as delays, speeds, traffic density, or v/c ratios.

Existing 2007 and design year 2030 No-Build AM/PM peak period Level of Service (LOS) projections were developed for MD 5 between MD 245 and MD 243. For the MD 5 project, the analysis was completed using a traffic program called Synchro which uses control delay as its intersection measure of effectiveness. Control delay is the average time a vehicle is waiting at a signalized intersection (sec/vehicle). This type of delay includes deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The delay is first calculated by lane group, then by the delay for each approach, and then for the overall intersection delay. Table I-2 represents the LOS breakdown based on the Synchro analysis completed for this project. The Synchro analysis consists of modeling software for optimizing signal timing.

Table I-2 – Synchro Level of Service(LOS) Breakdown

| LOS | Control Delay per Vehicle (seconds) |
|-----|-------------------------------------|
| A | ≤ 10 |
| B | > 10 and ≤ 20 |
| C | > 20 and ≤ 35 |
| D | > 35 and ≤ 55 |
| E | > 55 and ≤ 80 |
| F | > 80 |

A summary of the LOS analysis of existing 2007 and the 2030 No-Build conditions, is provided in Table I-3.

Table I-3 – Existing and 2030 No-Build Level of Service Analysis

| Location | Level of Service (average delay) | | | |
|--------------------------------|----------------------------------|---------|---------------|---------|
| | 2007 Existing | | 2030 No Build | |
| | AM Peak | PM Peak | AM Peak | PM Peak |
| MD 5 at MD 243/Maypole | B | C | F | F |
| MD 5 at Clarks Rest/Tudor Hall | N/A | N/A | F | F |
| MD 5 at MD 245/MD 5 Bus. | B | C | E | F |

Currently, all intersections operate at LOS ‘C’ or better. However, under the 2030 no-build traffic conditions, all MD 5 intersections in the MD 5 project limits are predicted to operate at LOS ‘F’ during the PM peak hour. During the AM peak hour, all intersections will operate at LOS ‘F’ with the MD 243/Maypole Road intersection with MD 5 at LOS ‘F’.

2. Safety

The study portion of MD 5 is a four-lane curbed urban section and presently has minimal or no shoulders. Speeding vehicles, along with rear-end and angle crashes are areas of concern in the MD 5 corridor. Motorists have difficulty safely making left turns into and from driveways, side streets and commercial properties due to conflicts with opposing traffic and some with limited sight distance. Recently, MD 5 was restriped to include a four-foot-wide striped median to help improve the safety along the corridor by narrowing the travel lanes to slow down speeds and providing a buffer between the different directions of traffic flow.

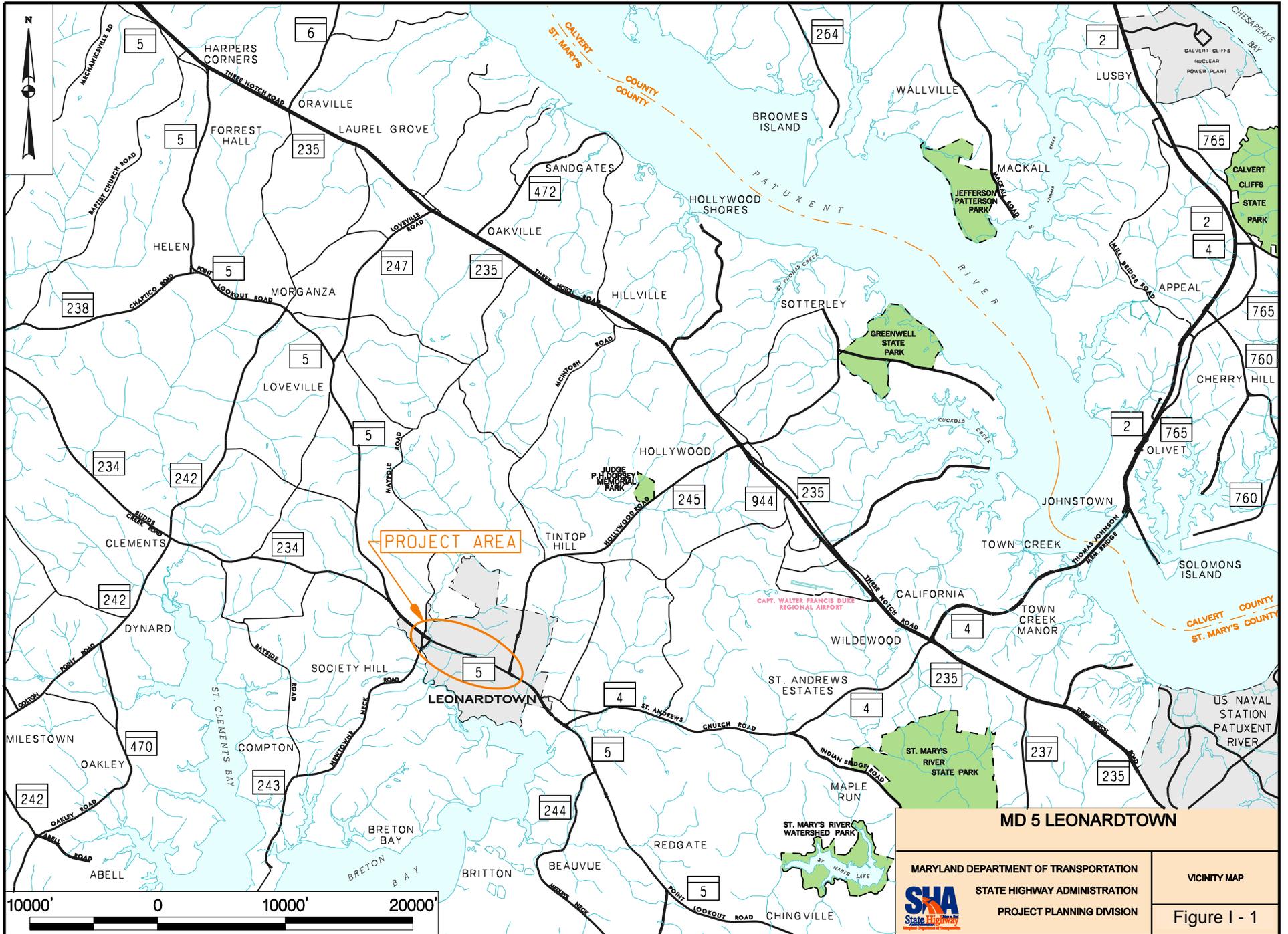
Crash summary information for MD 5 within the project area was collected for a three-year period between 2008 and 2010. The intersection of MD 5 at MD 5 Business/MD 245 was identified in 2008 as a Primary Candidate Safety Improvement Intersection. In addition, there were several high crash categories and the section of MD 5 analyzed has crash rates significantly higher than the statewide average rate for similarly designed roadways (see Table I-4). On MD 5, between MD 243 and MD 245, there were 155 crashes; none fatal, 80 with personal injury, and 75 with property damage. This translates to 371 crashes per 100 million vehicle miles of travel which is well over the statewide average of 177 for all similarly designed roadways under State maintenance. Rear end, sideswipe, left turn, and angle crashes were all significantly higher than the statewide average.

Table I-4 – MD 5 Crash History from 2008 to 2010

| Type/Year | 2008 | 2009 | 2010 | Total | Study Rate | Statewide Rate |
|---|------|------|------|------------------------------|------------|----------------|
| Summary | | | | | | |
| Fatal | 0 | 0 | 0 | 0 | 0.0 | 1.3 |
| No. Killed | 0 | 0 | 0 | 0 | - | - |
| Injury | 28 | 26 | 26 | 80 | 191.5* | 75.9 |
| No. Injured | 58 | 45 | 35 | 138 | - | - |
| Property Damage | 30 | 25 | 20 | 75 | 197.5* | 99.8 |
| Total | 58 | 51 | 46 | 155 | 371.0* | 177.0 |
| Crash Breakdown | | | | | | |
| Opposite Direction | 3 | 1 | 1 | 5 | 12.0 | 9.6 |
| Rear End | 28 | 27 | 21 | 76 | 181.9* | 62.0 |
| Sideswipe | 4 | 6 | 4 | 14 | 33.5* | 11.0 |
| Left Turn | 11 | 7 | 5 | 23 | 55.0* | 15.2 |
| Angle | 8 | 10 | 9 | 27 | 64.6* | 29.7 |
| Pedestrian | 1 | 0 | 0 | 1 | 2.4 | 1.2 |
| Fixed Object | 2 | 0 | 1 | 3 | 7.2 | 24.6 |
| Other | 1 | 0 | 5 | 6 | 14.4 | 8.6 |
| U-Turn | 0 | 0 | 1 | 1 | - | - |
| Animal | 0 | 0 | 2 | 2 | - | - |
| Overtake | 0 | 0 | 1 | 1 | - | - |
| Truck Related | 3 | 5 | 0 | 8 | 19.1 | 14.6 |
| <i>*Significantly Higher than Statewide average</i> | | | | <i>Rates are per 100 mvm</i> | | |

MD 5 is designated by SHA as a bicycle route from Point Lookout north to MD 231 in Hughesville. However, the lack of shoulders on MD 5 from MD 243 to MD 245 in Leonardtown and the lack of any parallel routes in the vicinity require bicyclists to share the existing travel lanes with motorized traffic. The lack of sidewalks and/or shoulders on MD 5 from Abell/Moakley streets west to MD 243 also requires pedestrians to walk in the existing travel lanes with motorized traffic. While only one pedestrian-related crash has been reported along MD 5 in the study area from 2008 through 2010, the lack of bicycle and pedestrian facilities has been identified by the County as a safety concern from potential users and therefore acts as a deterrent to bicycling and walking along MD 5.

St. Mary's County is home to a significant Old Order Community (Amish and Mennonite) population, many of which use horse-and-buggies for transportation. Amish church districts appear to be located in the more rural areas west and east of the project area; Old Order Mennonite communities appear to be located in the rural area north of the project area. The speed differential between motorized traffic and the relatively slow moving horse-and-buggies can be in conflict, particularly when the buggy drivers attempt to pull out onto the road and when they make left turns. The roadway currently lacks shoulders to accommodate the width of the buggies, which in turn results in the drivers having to use parts of or the full width of a travel lane. While no horse-and-buggy related crashes have been reported along MD 5 in the study area from 2008 through 2010, the lack of shoulders on MD 5 has been identified by the County and representatives of the Amish community as a safety concern.



MD 5 LEONARDTOWN

MARYLAND DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 PROJECT PLANNING DIVISION



VICINITY MAP
 Figure I - 1

II. ALTERNATIVES CONSIDERED

A. Alternatives Presented at the Alternatives Public Workshop

1. Alternative 1-No-Build

No major improvements are proposed with Alternative 1, the No-Build Alternative. Minor short-term improvements would occur as part of normal maintenance and safety projects. This alternative does not address the Purpose and Need for the project. However, it serves as a baseline for comparing the impacts and benefits of other proposed alternatives (see Figure II-1).

2. Alternative 2 - Transportation Systems Management (TSM)

The Transportation Systems Management (TSM) Alternative consists of lower-cost improvements including minor construction and operational enhancements (see Figures II-2 through II-4). Under this alternative, improvements are included for the intersections of MD 243, MD 245 and Abell/Moakley streets with MD 5. For the MD 243 and MD 245 intersections, these improvements include the addition of additional turn lanes and/or exclusive right turns. Major improvements included as part of Alternative 2 are:

- Provide a double left from MD 5 westbound to MD 243 southbound.
- Provide a double right from MD 243 northbound to MD 5 eastbound.
- Add an exclusive right turn lane from MD 5 eastbound to MD 5 Business (Washington Avenue) southbound.
- Provide a double right from MD 245 southbound to MD 5.

Additional storage length and taper areas have been included where necessary as part of the intersection improvements. A traffic signal is proposed at the intersection of MD 5 with Abell/Moakley Streets. This improvement includes the formal striping of left turn lanes on MD 5 at the intersection. At the MD 5 intersections with MD 243, MD 245 and Abell/Moakley Streets, new sidewalks are being added along MD 5 to improve pedestrian accessibility and safety, and will connect with the existing sidewalks where present. Sixteen-foot-wide outside lanes are included on MD 5 at these intersections for on-road bicycle use and to improve safety for horse-drawn vehicles.

3. Alternative 3 – Five Lane Roadway

Alternative 3 includes the addition of a 13-foot-wide continuous turn lane to the center of MD 5 along with intersection improvements throughout the corridor. A 12-foot-wide inside travel lane and 16-foot-wide outside travel lane in each direction would be provided. This would require widening the existing roadway to one or both sides (varies along the corridor). The 16-foot-wide outside lane has been provided to accommodate bicycle access along the corridor as well as horse-drawn vehicles (see Figure II-1). In addition a continuous five-foot sidewalk would be provided along both sides of MD 5 throughout the entire project limits to improve pedestrian accessibility and safety. The MD 5 intersections at MD 243 and MD 245 would include raised medians for American Disability Act (ADA) compliance, and include all improvements proposed under Alternative 2. New signalized intersections would be provided at the MD 5 intersections with Clark's Rest Lane and Abell/Moakley Streets.

4. Alternative 4 – Four Lane Divided Roadway

This alternative proposes the addition of a continuous 18-foot-wide landscaped median for MD 5 with 11-foot-wide left-turn lanes provided at major intersections. A 12-foot inside travel lane and 16-foot outside travel lane will be provided in each direction. This would require widening the existing roadway to one or both sides. The 16-foot outside lane has been provided to accommodate bicycle access along the corridor along with horse-drawn vehicles (see Figure II-1). In addition, a continuous five-foot sidewalk has been provided along both sides of MD 5 throughout the entire project limits to improve pedestrian accessibility and safety. The MD 5 intersections at MD 243 and MD 245 would include the same improvements proposed under Alternative 2.

5. Options for Alternatives 3 and 4

The four options under consideration for the MD 5 project planning study are briefly summarized as follows:

a) Option 1 – Section 4(f) Minimization

Under this option, the baseline of the proposed roadway is deviated from the existing centerline to avoid and minimize impacts to historic properties. Impacts to the historic Drury-Saunders House at the intersection of MD 5 and MD 245 were unable to be avoided by any of the build alternatives because this property and the St. Mary's Academy lie on the northwest and northeast quadrants of the MD 5/MD 245 intersection, and any improvements to the intersection require some widening along MD 245 to accommodate an additional right turn lane.

b) Option 2 – Stream Avoidance

Under this option, the baseline of the proposed roadway is deviated from the existing centerline to avoid the longitudinal stream impact and historic site located on the north side of MD 5 between Abell/Moakley Streets and Clark's Rest Lane. All widening to the MD 5 corridor would be done to the south side of the road. The stream was identified as a resource of concern during the initial field review with environmental and regulatory agencies.

c) Option 3 – Additional Intersection Improvements

This option expands the intersections along MD 5 beyond what is proposed in all build alternatives to accommodate additional left turning movements and storage capacity at the MD 5 intersections with MD 243 and MD 245 to achieve a level of service of 'E' or better in 2030 at these two intersections. All approaches to the intersection of MD 5 at MD 245 will have double left turning bays, except for MD 5 westbound. This option extends the roadway reconstruction along MD 5 Business and MD 245. This option also includes a traffic signal at MD 245/Merchants Lane to improve the operation and safety for vehicles exiting Merchants Lane. In addition, a jug handle movement has been provided at the intersection of MD 5 at Abell/Moakley Streets to accommodate U-turning vehicles as part of Alternative 4.

d) Option 4 – Shopping Center Modified Access

This option was evaluated based on comments received at the December 2008 Public Workshop. It has the same improvements as Alternative 4 with the exception of the improvements for the MD 5/MD 243 intersection. At the MD 5 intersection with MD 243, the right turn movement from MD 243 onto Merchants Lane and the left-out from Merchants Lane are prohibited. A

double left-turn into the shopping plaza from northbound MD 5 has been added further west at the location of the existing right-in/right-out entrance with MD 5 southbound and the shopping plaza. The restriction of movements onto Merchants Lane helps reduce the length of the left turn bays for northbound MD 5 at MD 243. A traffic signal will be added at the intersection of southbound MD 5 at the shopping center entrance.

B. Alternatives Dropped From Consideration

1. Option 1 – Section 4(f) Avoidance

Option 1 is not recommended for further study as a standalone option due to the magnitude of displacements associated with the option. Alternative 4 with Option 1 has a total of 22 displacements as compared to a maximum of 14 with other alternatives/options being considered. Efforts to avoid or minimize impacts to Section 4(f) resources will be included in the other build alternatives during the detailed engineering and environmental studies. Option 1 will be included as a minimization option in the Section 4(f) evaluation (see Section IV, Draft Section 4(f) Evaluation).

C. Alternatives Retained for Detailed Study

1. Alternative 1-No-Build

No major improvements are proposed with Alternative 1, the No-Build Alternative. Minor short-term improvements would occur as part of normal maintenance and safety projects. This alternative does not address the Purpose and Need for the project. However, it serves as a baseline for comparing the impacts and benefits of other proposed alternatives.

2. Alternative 2-Transportation Systems Management (TSM)

The Transportation Systems Management (TSM) Alternative consists of lower-cost improvements including minor construction and operational enhancements. Under this alternative, improvements are included for the intersections of MD 243, MD 245 and Abell/Moakley streets with MD 5. For the MD 243 and MD 245 intersections, these improvements include the addition of additional turn lanes and/or exclusive right turns (Figures II-2 through II-4). Major improvements included as part of Alternative 2 are:

- Provide a double left from MD 5 westbound to MD 243 southbound.
- Provide a double right from MD 243 northbound to MD 5 eastbound.
- Add an exclusive right turn lane from MD 5 eastbound to MD 5 Business (Washington Avenue) southbound.
- Provide a double right from MD 245 southbound to MD 5.

Additional storage length and taper areas have been included where necessary as part of the intersection improvements. A traffic signal has been added at the intersection of MD 5 with Abell/Moakley streets. This improvement includes the formal striping of left turn lanes on MD 5 at the intersection. At the MD 5 intersections with MD 243, MD 245 and Abell/Moakley Streets, new sidewalks are being added along MD 5 only at the intersections to improve pedestrian accessibility and safety, and will connect with the existing sidewalks where present. Wide outside lanes are included on MD 5 at these intersections for on-road bicycle use and to improve safety for horse-drawn vehicles.

3. Alternative 3 – Five Lane Roadway

Alternate 3 includes the addition of a 13-foot-wide continuous turn lane to the median of MD 5 along with intersection improvements throughout the corridor. A 12-foot-wide inside travel lane and 16-foot-wide outside travel lane would be provided. This would require widening the existing roadway to one or both sides. The 16-foot-wide outside lane has been provided to accommodate bicycle access along the corridor as well as horse-drawn vehicles. In addition a 5-foot sidewalk has been provided along both sides of MD 5 throughout the entire project limits to improve pedestrian accessibility and safety. The MD 5 intersections at MD243 and MD 245 would include raised medians for ADA compliance, and include all improvements proposed under Alternative 2. New signalized intersections would be provided at the MD 5 intersections with Clark's Rest Lane and Abell/Moakley Streets (Figures II-5 through II-8).

4. Alternative 4 – Four Lane Divided Roadway

This alternative proposes the addition of a continuous median for MD 5 with left-turn lanes provided at major intersections. A 12-foot inside travel lane and 16-foot outside travel lane will be provided. This would require widening the existing roadway to one or both sides. The 16-foot outside lane has been provided to accommodate bicycle access along the corridor along with horse drawn vehicles. In addition, a 5-foot sidewalk has been provided along both sides of MD 5 throughout the entire project limits to improve pedestrian accessibility and safety. The MD 5 intersections at MD 243 and MD 245 would include the improvements proposed under Alternative 2 (Figures II-9 through II-12).

5. Options for Alternatives 3 and 4

The following options have been retained for detailed study as part of Alternatives 3 and 4:

a) Option 2 – Stream Avoidance

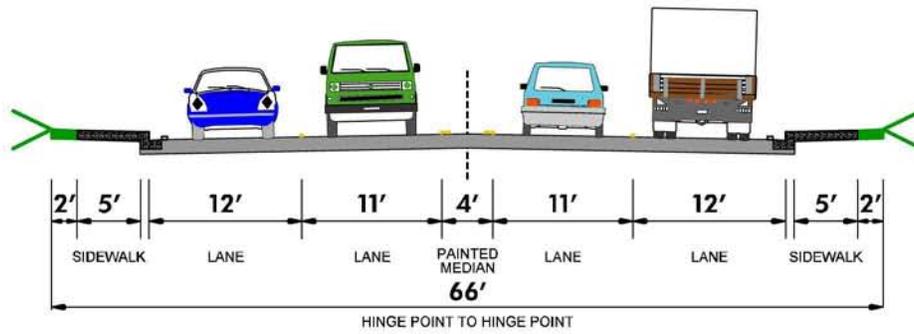
Under this option, the baseline of the proposed roadway is deviated from the existing centerline to avoid the longitudinal stream impact and historic site located on the north side of MD 5 between Abell/Moakley streets and Clark's Rest Lane. The stream was identified as a resource of concern during the initial field review with the review and regulatory agencies (Figures II-13 and II-14).

b) Option 3 – Additional Intersection Improvements

This option expands the intersections along MD 5 beyond what is proposed in all build alternatives to accommodate additional left turning movements and storage capacity at the MD 5 intersections with MD 243 and MD 245 to achieve a level of service of 'E' or better in 2030 at these two intersections. All approaches to the intersection of MD 5 at MD 245 will have double left turning bays, except for MD 5 westbound. This option extends the roadway reconstruction along MD 5 Business and MD 245. This option also includes a traffic signal at MD 245/Merchants Lane to improve the operation and safety for vehicles exiting Merchants Lane. In addition, a jug handle movement has been provided at the intersection of MD 5 at Abell/Moakley streets to accommodate U-turning vehicles as part of Alternative 4 (Figure II-6).

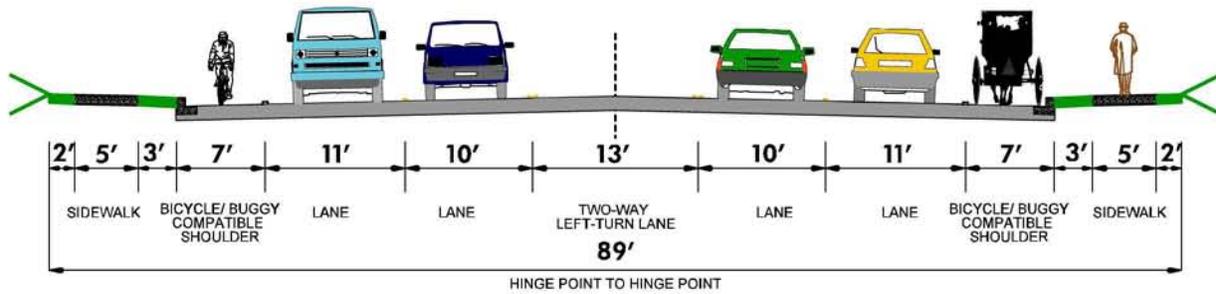
c) Option 4 – Shopping Center Modified Access

This option has the same improvements as Alternative 4 with the exception of the improvements for the MD 5/MD 243 Intersection. The intersection of MD 5 at MD 245 has the same lane configuration as Alternative 4. At the MD 5 intersection with MD 243, the right turn movement from MD 243 onto Merchant's Lane and the left-out from Merchant's Lane are prohibited. A double left-turn into the shopping plaza from north-bound MD 5 has been added further west at the location of the existing right-in/right-out entrance with MD 5 northbound and the shopping plaza. The restriction of movements onto Merchant's lane helps reduce the length of the left run bays for northbound MD 5 at MD 243. A traffic signal will be added (Figure II-17).

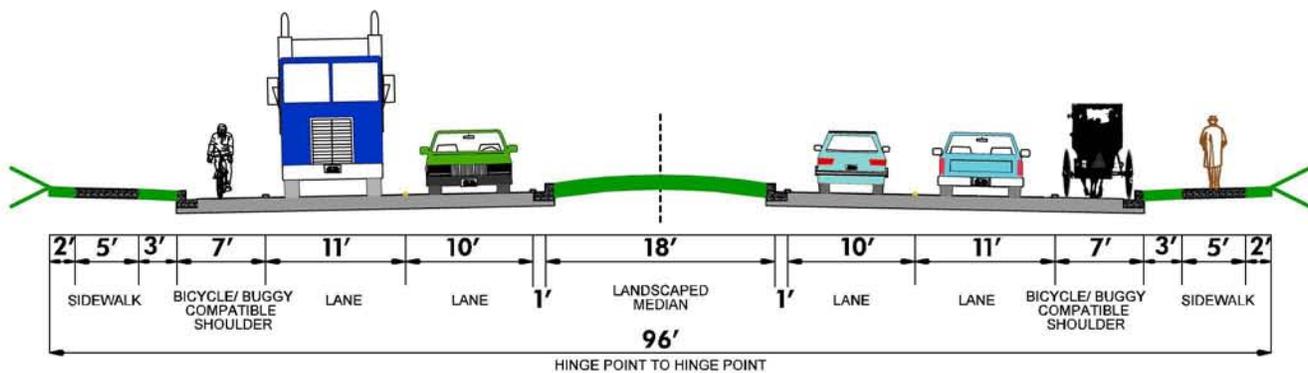


ALT. 1 - NO-BUILD OPTION

EXISTING CONDITIONS



ALT. 3 - 5 LANE ALTERNATIVE



ALT. 4 - 4 LANE DIVIDED ALTERNATIVE

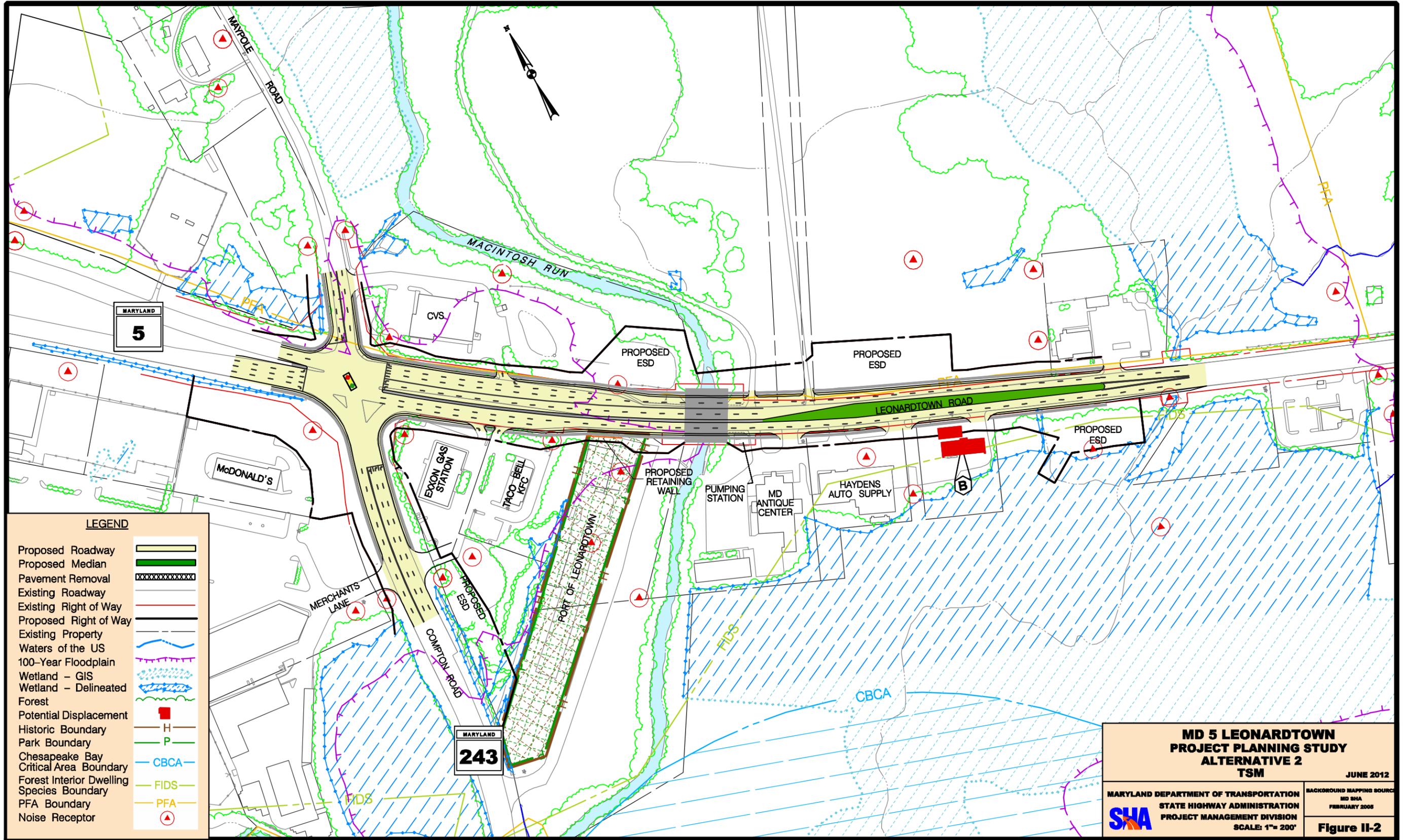
MD 5 LEONARDTOWN PROJECT PLANNING STUDY MODIFIED TYPICAL SECTION WIDE OUTSIDE SHOULDER

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
PROJECT MANAGEMENT DIVISION
MARCH 2012 SCALE: 1" = 200'

BACKGROUND MAPPING SOURCE
MD SHA
FEBRUARY 2005

Figure II - 1

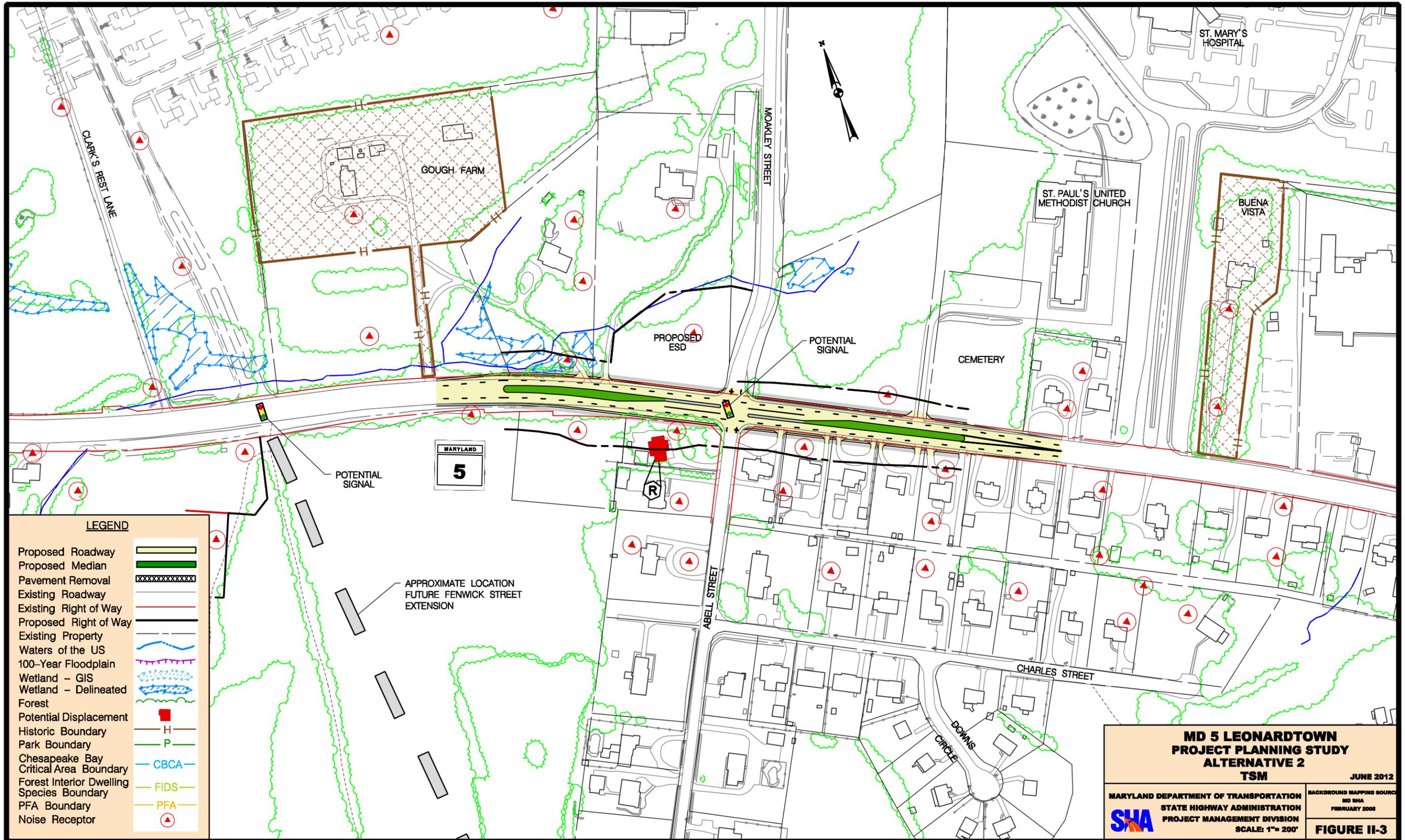




LEGEND

- Proposed Roadway
- Proposed Median
- Pavement Removal
- Existing Roadway
- Existing Right of Way
- Proposed Right of Way
- Existing Property
- Waters of the US
- 100-Year Floodplain
- Wetland - GIS
- Wetland - Delineated
- Forest
- Potential Displacement
- Historic Boundary
- Park Boundary
- Chesapeake Bay Critical Area Boundary
- Forest Interior Dwelling Species Boundary
- PFA Boundary
- Noise Receptor

| | | |
|---|--|---|
| MD 5 LEONARDTOWN PROJECT PLANNING STUDY ALTERNATIVE 2 TSM | | JUNE 2012 |
| MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION | | BACKGROUND MAPPING SOURCE: MD SHA FEBRUARY 2005 |
| PROJECT MANAGEMENT DIVISION SCALE: 1" = 200' | | Figure II-2 |



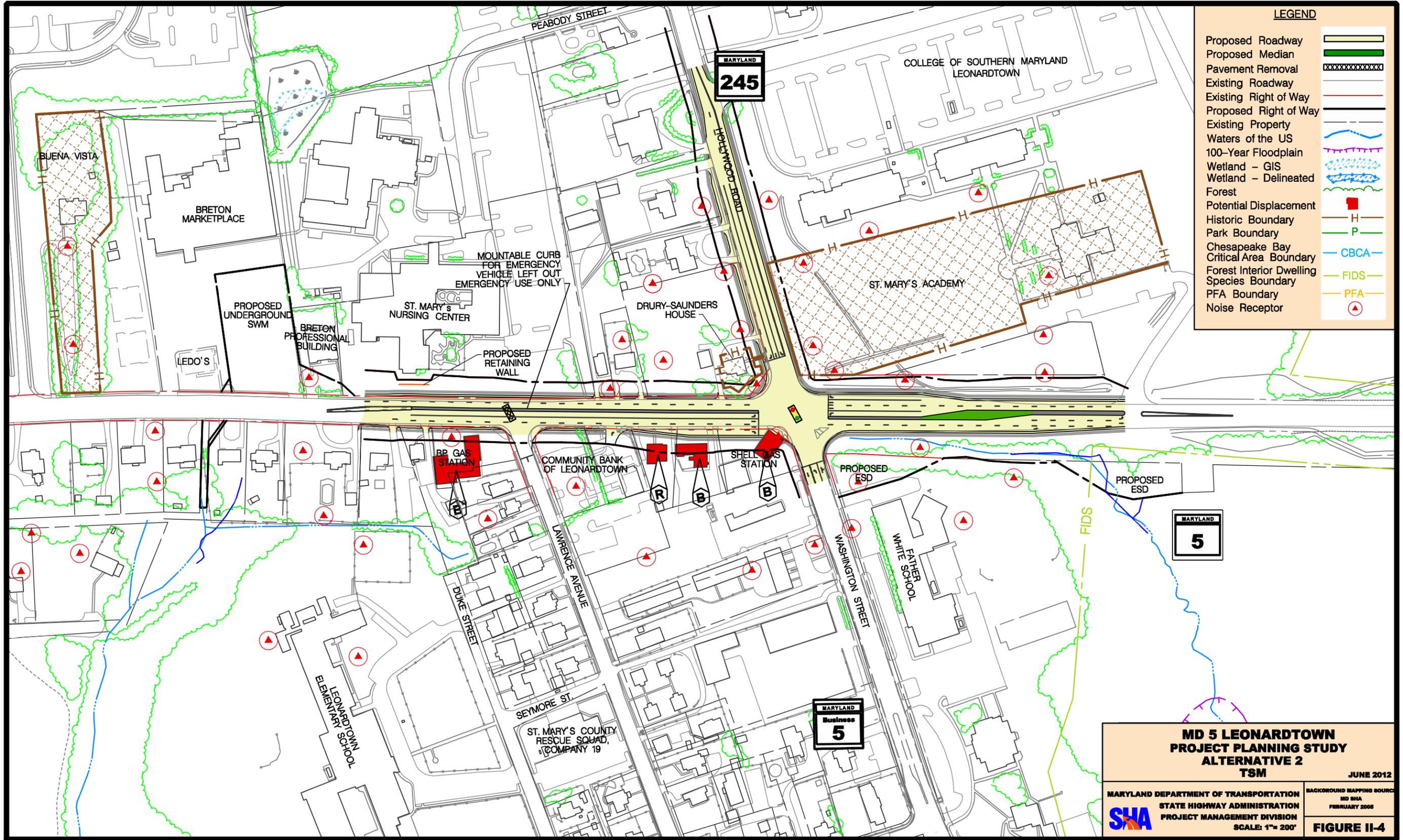
LEGEND

| | |
|---|--|
| Proposed Roadway | |
| Proposed Median | |
| Pavement Removal | |
| Existing Roadway | |
| Existing Right of Way | |
| Proposed Right of Way | |
| Existing Property | |
| Waters of the US | |
| 100-Year Floodplain | |
| Wetland - GIS | |
| Wetland - Delineated | |
| Forest | |
| Potential Displacement | |
| Historic Boundary | |
| Park Boundary | |
| Chesapeake Bay Critical Area Boundary | |
| Forest Interior Dwelling Species Boundary | |
| PFA Boundary | |
| Noise Receptor | |

**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
ALTERNATIVE 2
TSM**

JUNE 2012

| | | |
|--|--|---|
| | MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION PROJECT MANAGEMENT DIVISION SCALE: 1" = 200' | BACKGROUND MAPPING SOURCE: MD SHA FEBRUARY 2008 |
| | FIGURE II-3 | |



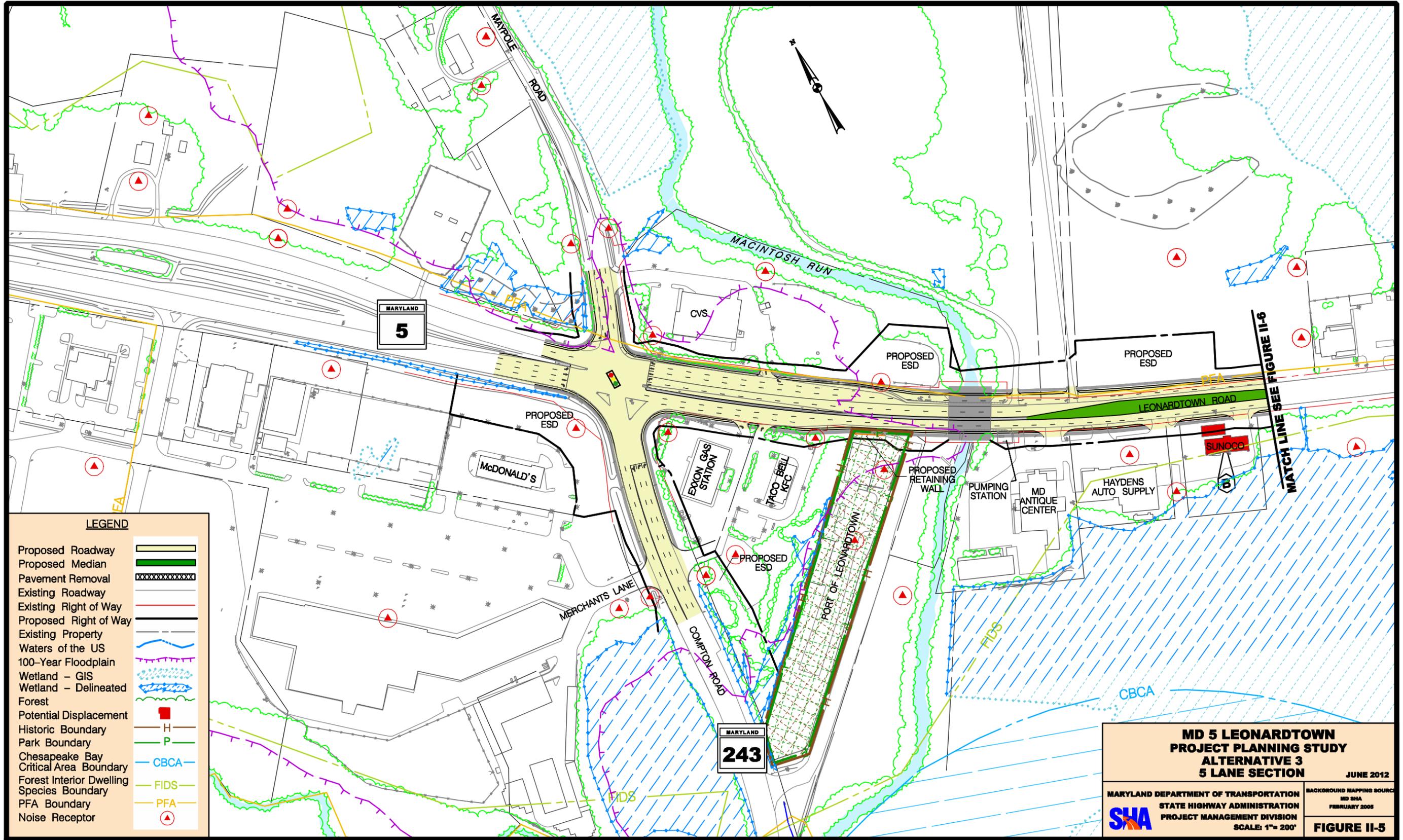
LEGEND

| | |
|---|--|
| Proposed Roadway | |
| Proposed Median | |
| Pavement Removal | |
| Existing Roadway | |
| Existing Right of Way | |
| Proposed Right of Way | |
| Existing Property | |
| Waters of the US | |
| 100-Year Floodplain | |
| Wetland - GIS | |
| Wetland - Delineated | |
| Forest | |
| Potential Displacement | |
| Historic Boundary | |
| Park Boundary | |
| Chesapeake Bay Critical Area Boundary | |
| Forest Interior Dwelling Species Boundary | |
| PFA Boundary | |
| Noise Receptor | |

**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
ALTERNATIVE 2
TSM**

JUNE 2012

| | | |
|--|---|---|
| | MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION PROJECT MANAGEMENT DIVISION SCALE: 1"= 200' | BACKGROUND MAPPING SOURCE: MD SHA FEBRUARY 2005 |
| | FIGURE II-4 | |



LEGEND

- Proposed Roadway
- Proposed Median
- Pavement Removal
- Existing Roadway
- Existing Right of Way
- Proposed Right of Way
- Existing Property
- Waters of the US
- 100-Year Floodplain
- Wetland - GIS
- Wetland - Delineated
- Forest
- Potential Displacement
- Historic Boundary
- Park Boundary
- Chesapeake Bay Critical Area Boundary
- Forest Interior Dwelling Species Boundary
- PFA Boundary
- Noise Receptor

**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
ALTERNATIVE 3
5 LANE SECTION**

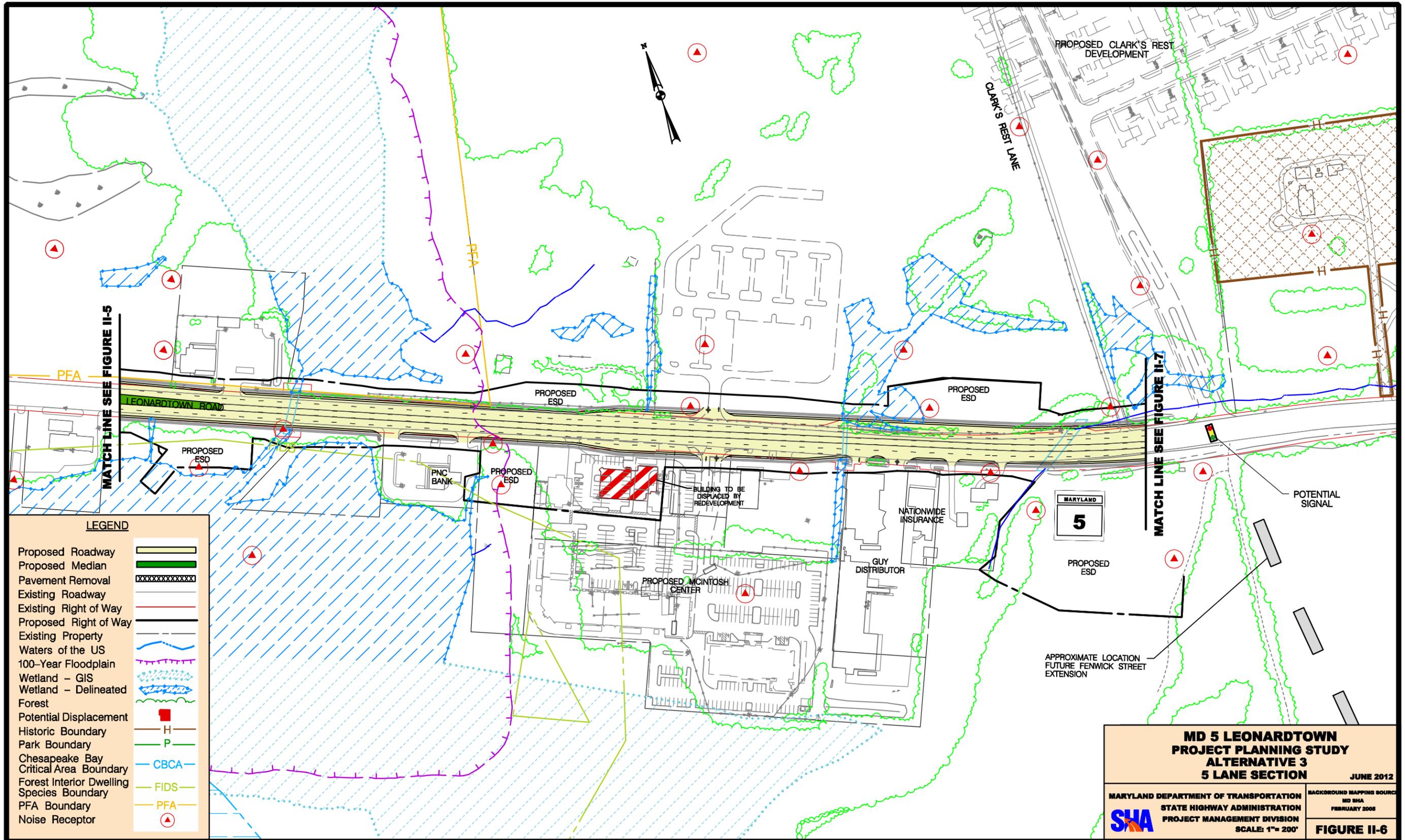
JUNE 2012

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
PROJECT MANAGEMENT DIVISION

BACKGROUND MAPPING SOURCE:
MD SHA
FEBRUARY 2005

SCALE: 1" = 200'

FIGURE II-5



LEGEND

- Proposed Roadway
- Proposed Median
- Pavement Removal
- Existing Roadway
- Existing Right of Way
- Proposed Right of Way
- Existing Property
- Waters of the US
- 100-Year Floodplain
- Wetland - GIS
- Wetland - Delineated
- Forest
- Potential Displacement
- Historic Boundary
- Park Boundary
- Chesapeake Bay Critical Area Boundary
- Forest Interior Dwelling Species Boundary
- PFA Boundary
- Noise Receptor

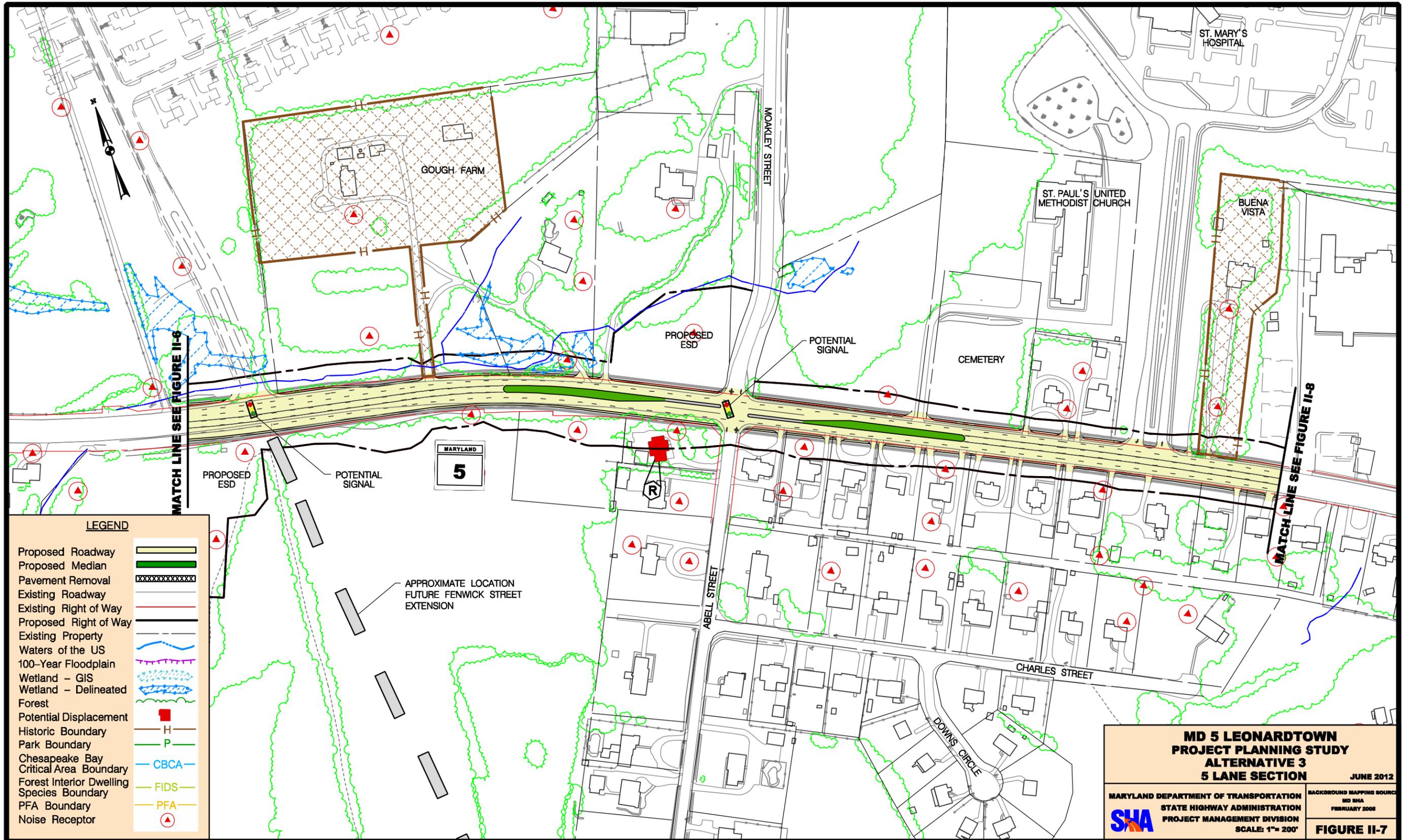
**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
ALTERNATIVE 3
5 LANE SECTION**

JUNE 2012

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
PROJECT MANAGEMENT DIVISION

BACKGROUND MAPPING SOURCE:
MD SHA
FEBRUARY 2008

SHA SCALE: 1" = 200' **FIGURE II-6**



LEGEND

- Proposed Roadway
- Proposed Median
- Pavement Removal
- Existing Roadway
- Existing Right of Way
- Proposed Right of Way
- Existing Property
- Waters of the US
- 100-Year Floodplain
- Wetland - GIS
- Wetland - Delineated
- Forest
- Potential Displacement
- Historic Boundary
- Park Boundary
- Chesapeake Bay Critical Area Boundary
- Forest Interior Dwelling Species Boundary
- PFA Boundary
- Noise Receptor

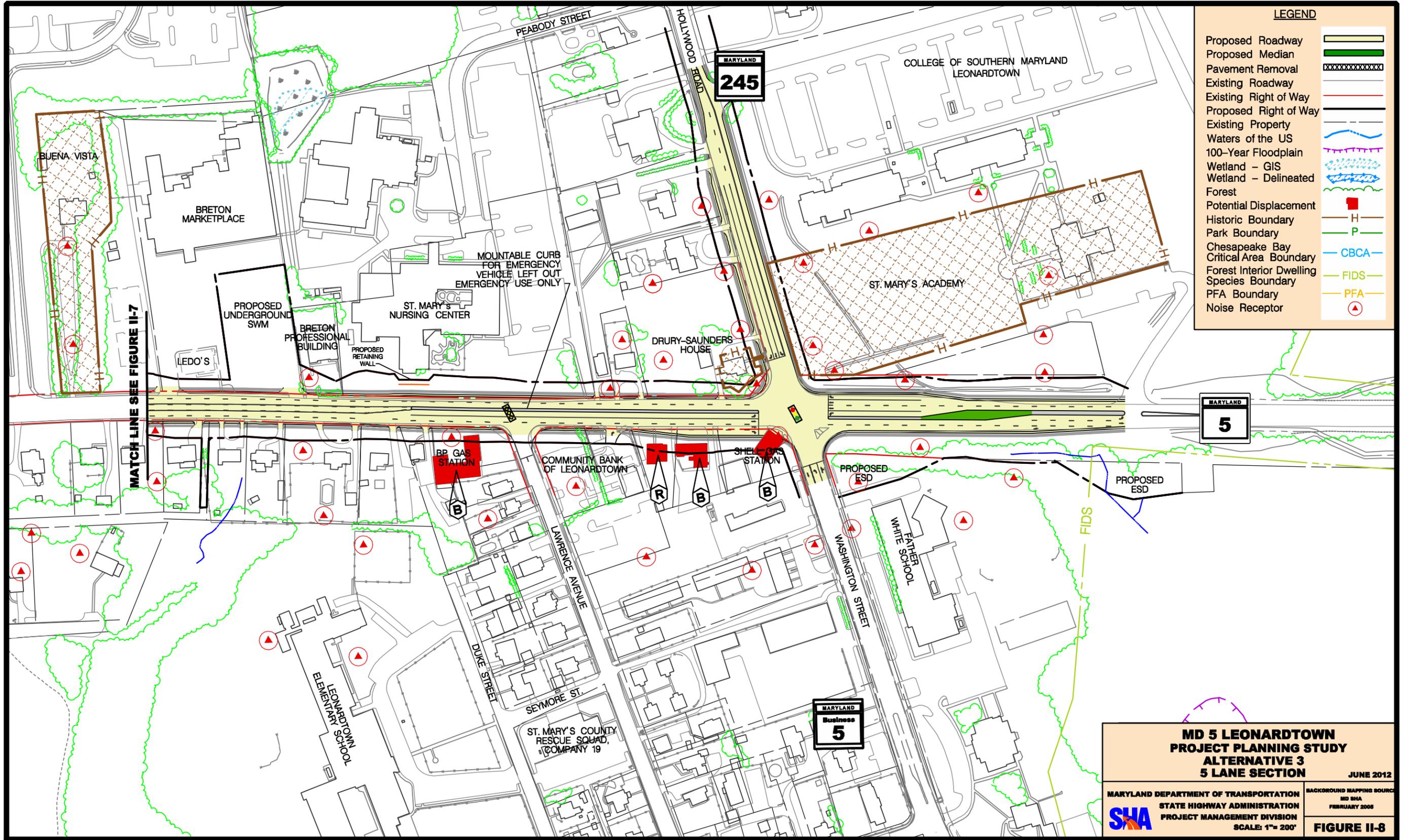
**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
ALTERNATIVE 3
5 LANE SECTION**

JUNE 2012

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
PROJECT MANAGEMENT DIVISION

BACKGROUND MAPPING SOURCE:
MD SHA
FEBRUARY 2008

SHA SCALE: 1" = 200' **FIGURE II-7**



| LEGEND | |
|---|--|
| Proposed Roadway | |
| Proposed Median | |
| Pavement Removal | |
| Existing Roadway | |
| Existing Right of Way | |
| Proposed Right of Way | |
| Existing Property | |
| Waters of the US | |
| 100-Year Floodplain | |
| Wetland - GIS | |
| Wetland - Delineated | |
| Forest | |
| Potential Displacement | |
| Historic Boundary | |
| Park Boundary | |
| Chesapeake Bay Critical Area Boundary | |
| Forest Interior Dwelling Species Boundary | |
| PFA Boundary | |
| Noise Receptor | |

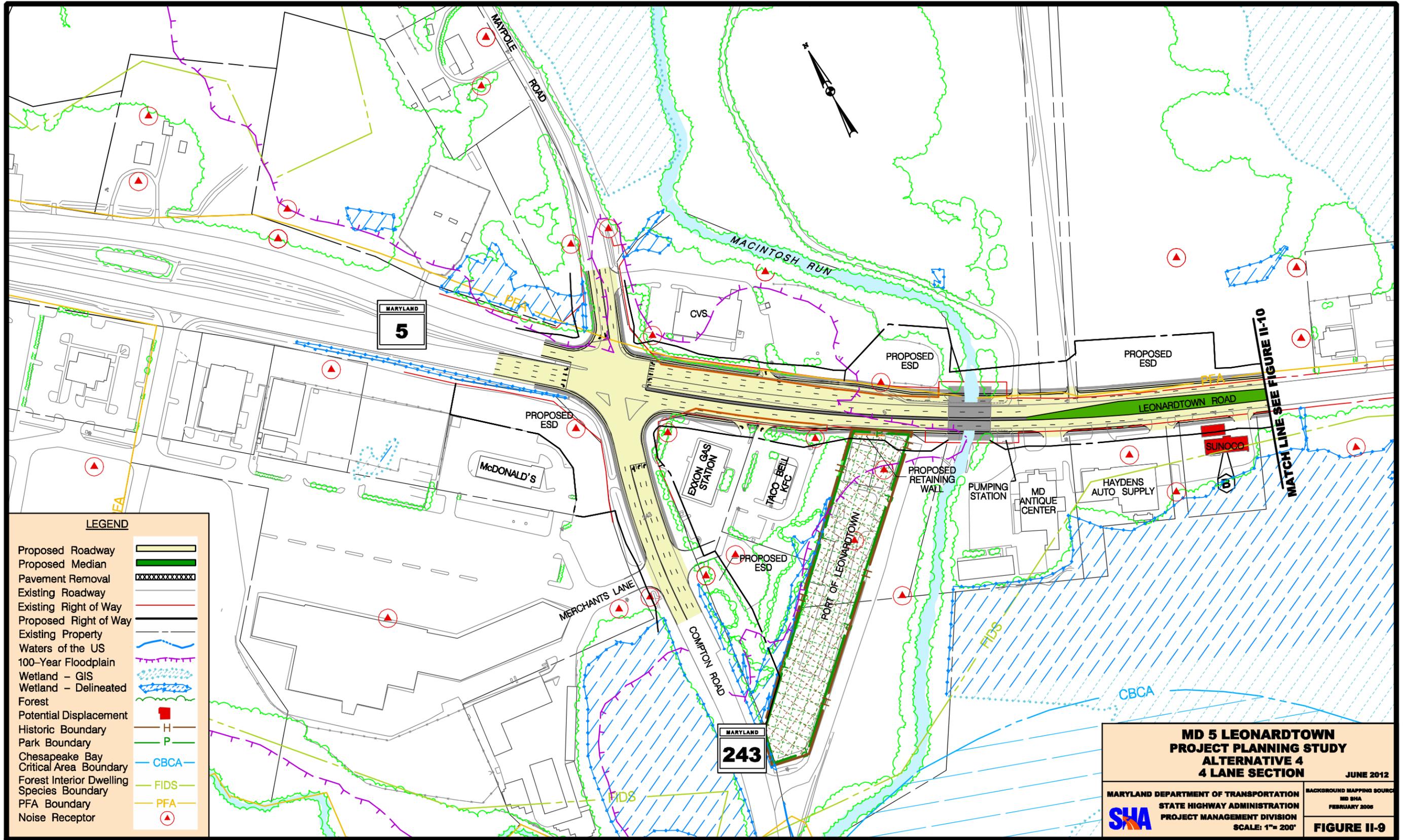
**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
ALTERNATIVE 3
5 LANE SECTION**

JUNE 2012

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
PROJECT MANAGEMENT DIVISION
SCALE: 1" = 200'

BACKGROUND MAPPING SOURCE:
MD SHA
FEBRUARY 2008

SHA **FIGURE II-8**



LEGEND

- Proposed Roadway
- Proposed Median
- Pavement Removal
- Existing Roadway
- Existing Right of Way
- Proposed Right of Way
- Existing Property
- Waters of the US
- 100-Year Floodplain
- Wetland - GIS
- Wetland - Delineated
- Forest
- Potential Displacement
- Historic Boundary
- Park Boundary
- Chesapeake Bay Critical Area Boundary
- Forest Interior Dwelling Species Boundary
- PFA Boundary
- Noise Receptor

**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
ALTERNATIVE 4
4 LANE SECTION**

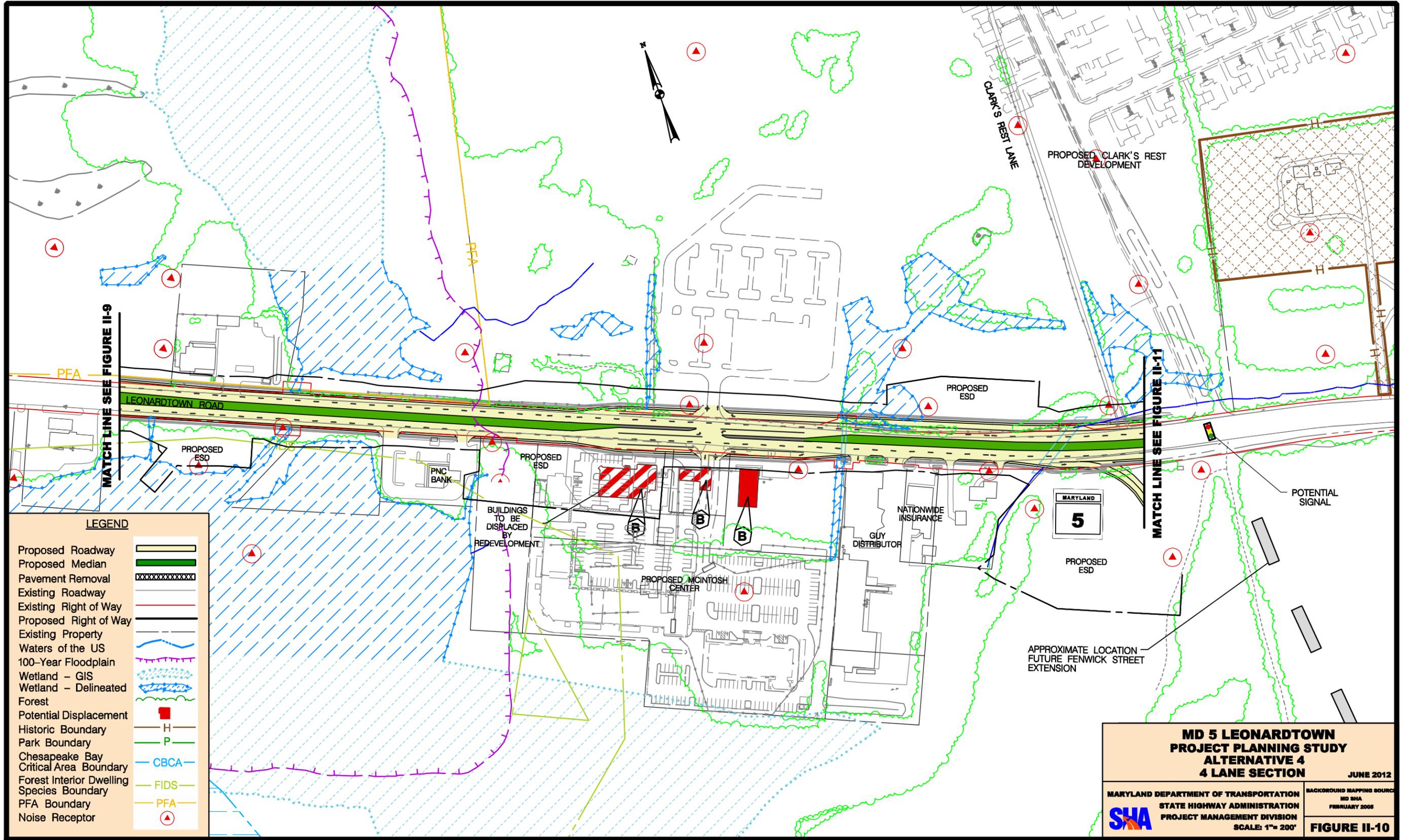
JUNE 2012

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
PROJECT MANAGEMENT DIVISION

BACKGROUND MAPPING SOURCE
MD SHA
FEBRUARY 2006

SCALE: 1" = 200'

FIGURE II-9



MATCH LINE SEE FIGURE II-9

MATCH LINE SEE FIGURE II-11

LEGEND

- Proposed Roadway
- Proposed Median
- Pavement Removal
- Existing Roadway
- Existing Right of Way
- Proposed Right of Way
- Existing Property
- Waters of the US
- 100-Year Floodplain
- Wetland - GIS
- Wetland - Delineated
- Forest
- Potential Displacement
- Historic Boundary
- Park Boundary
- Chesapeake Bay Critical Area Boundary
- Forest Interior Dwelling Species Boundary
- PFA Boundary
- Noise Receptor

**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
ALTERNATIVE 4
4 LANE SECTION**

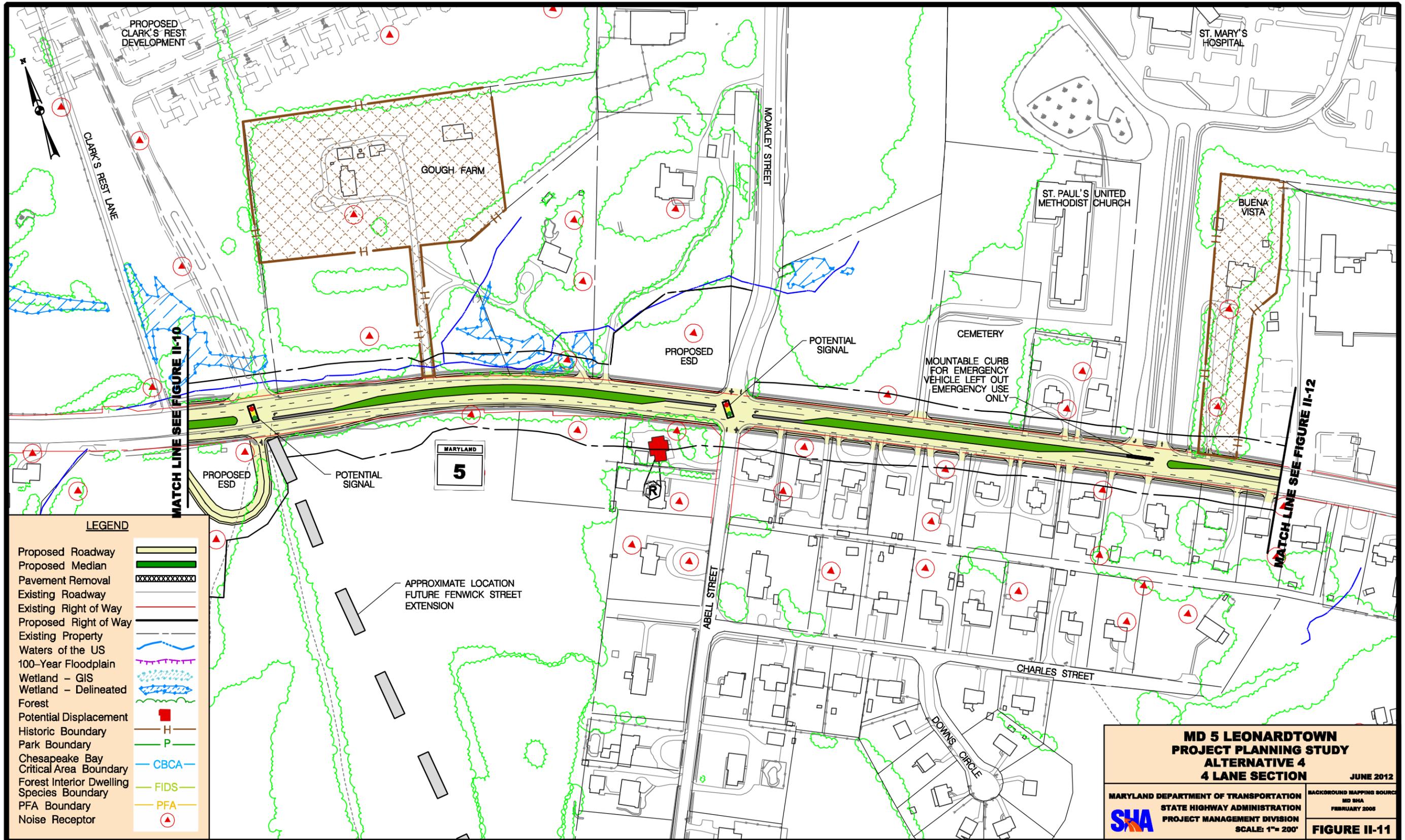
JUNE 2012

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
PROJECT MANAGEMENT DIVISION

BACKGROUND MAPPING SOURCE
MD SHA
FEBRUARY 2005

SCALE: 1" = 200'

FIGURE II-10



LEGEND

- Proposed Roadway
- Proposed Median
- Pavement Removal
- Existing Roadway
- Existing Right of Way
- Proposed Right of Way
- Existing Property
- Waters of the US
- 100-Year Floodplain
- Wetland - GIS
- Wetland - Delineated
- Forest
- Potential Displacement
- Historic Boundary
- Park Boundary
- Chesapeake Bay Critical Area Boundary
- Forest Interior Dwelling Species Boundary
- PFA Boundary
- Noise Receptor

**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
ALTERNATIVE 4
4 LANE SECTION**

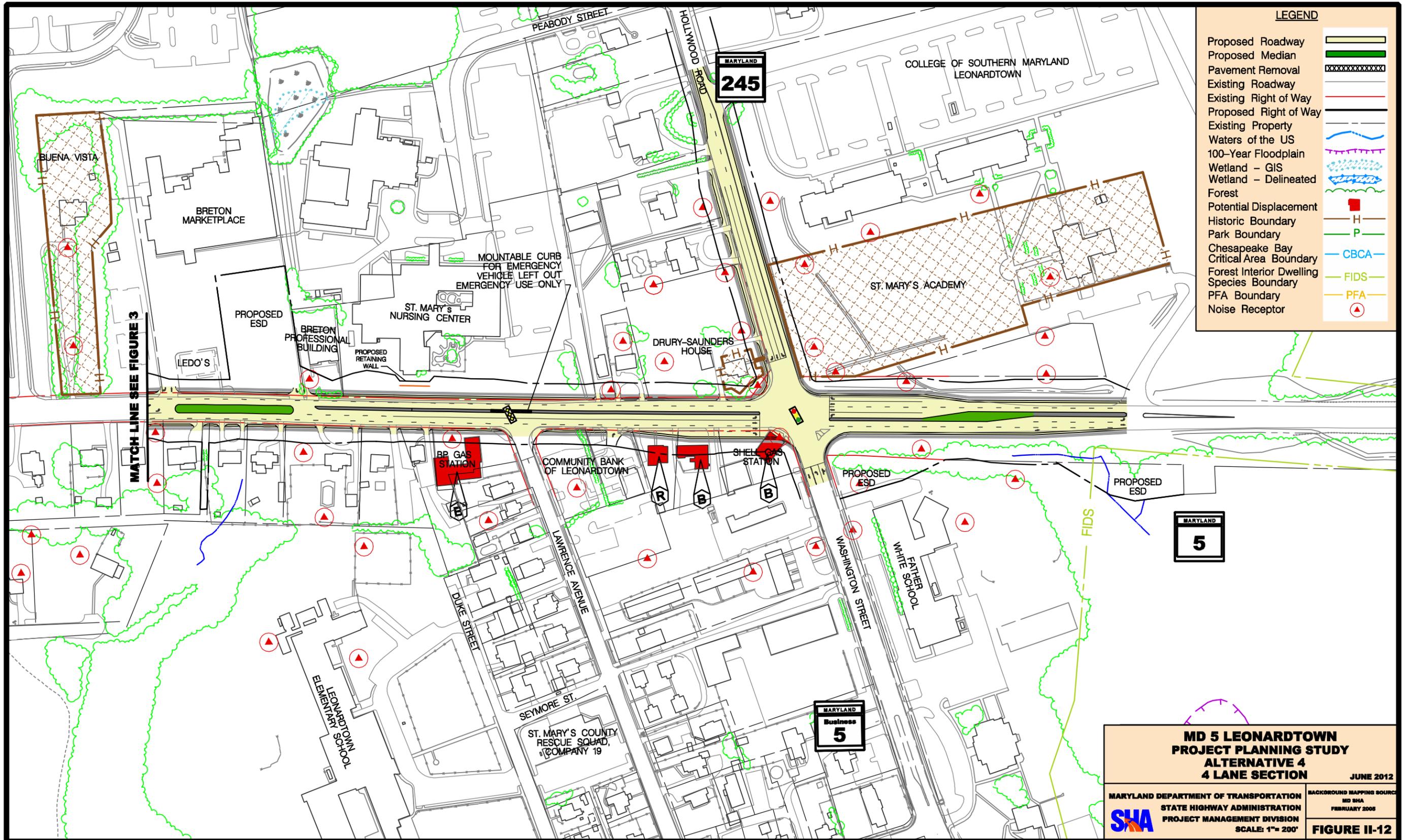
JUNE 2012

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
PROJECT MANAGEMENT DIVISION

BACKGROUND MAPPING SOURCE:
MD SHA
FEBRUARY 2008

SCALE: 1" = 200'

FIGURE II-11



LEGEND

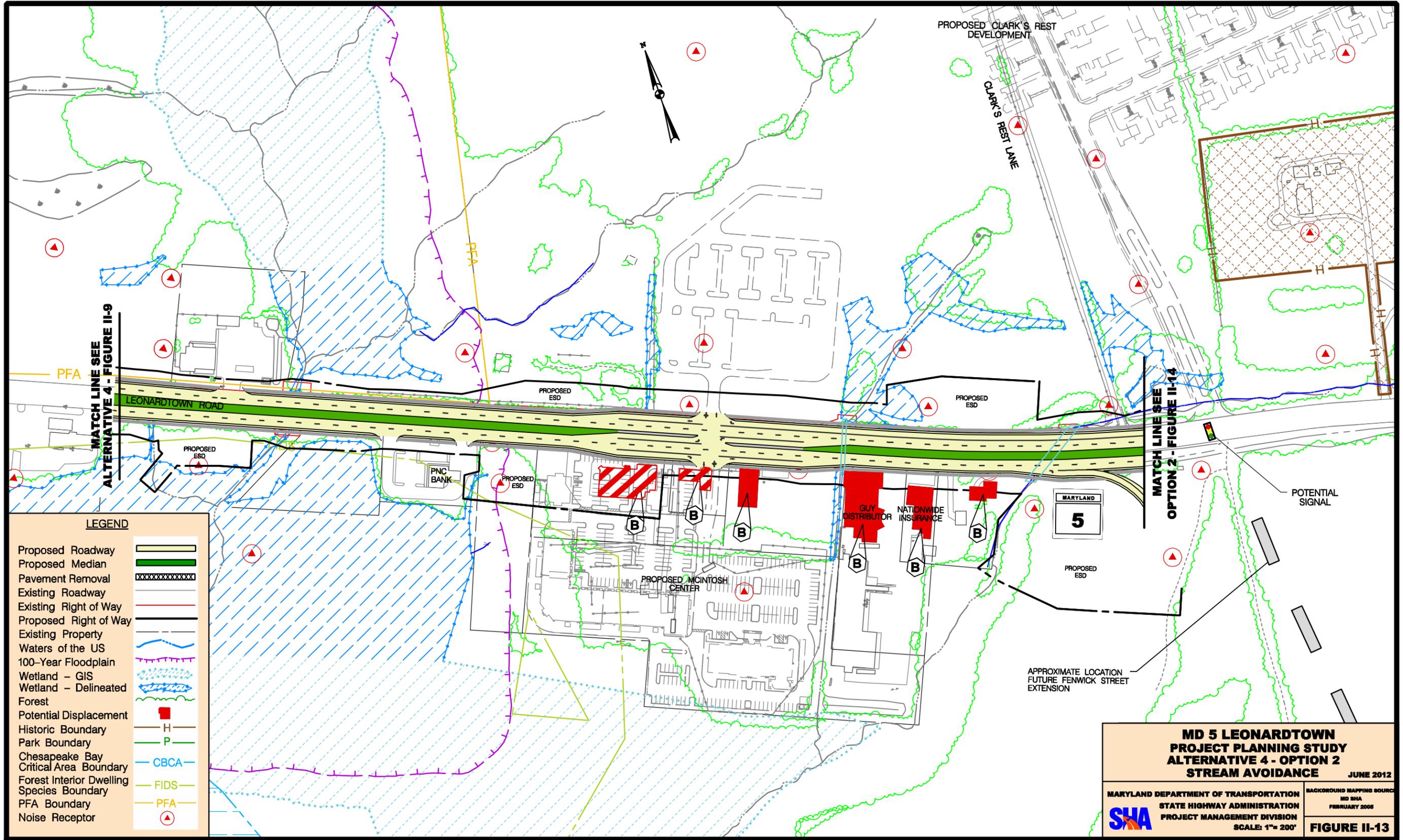
| | |
|---|--|
| Proposed Roadway | |
| Proposed Median | |
| Pavement Removal | |
| Existing Roadway | |
| Existing Right of Way | |
| Proposed Right of Way | |
| Existing Property | |
| Waters of the US | |
| 100-Year Floodplain | |
| Wetland - GIS | |
| Wetland - Delineated | |
| Forest | |
| Potential Displacement | |
| Historic Boundary | |
| Park Boundary | |
| Chesapeake Bay Critical Area Boundary | |
| Forest Interior Dwelling Species Boundary | |
| PFA Boundary | |
| Noise Receptor | |

**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
ALTERNATIVE 4
4 LANE SECTION**

JUNE 2012

| | |
|--|--|
| <p>MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION</p> | BACKGROUND MAPPING SOURCE MD SHA FEBRUARY 2005 |
| | PROJECT MANAGEMENT DIVISION |
| | SCALE: 1" = 200' |

FIGURE II-12



MATCH LINE SEE
ALTERNATIVE 4 - FIGURE II-9

MATCH LINE SEE
OPTION 2 - FIGURE II-14

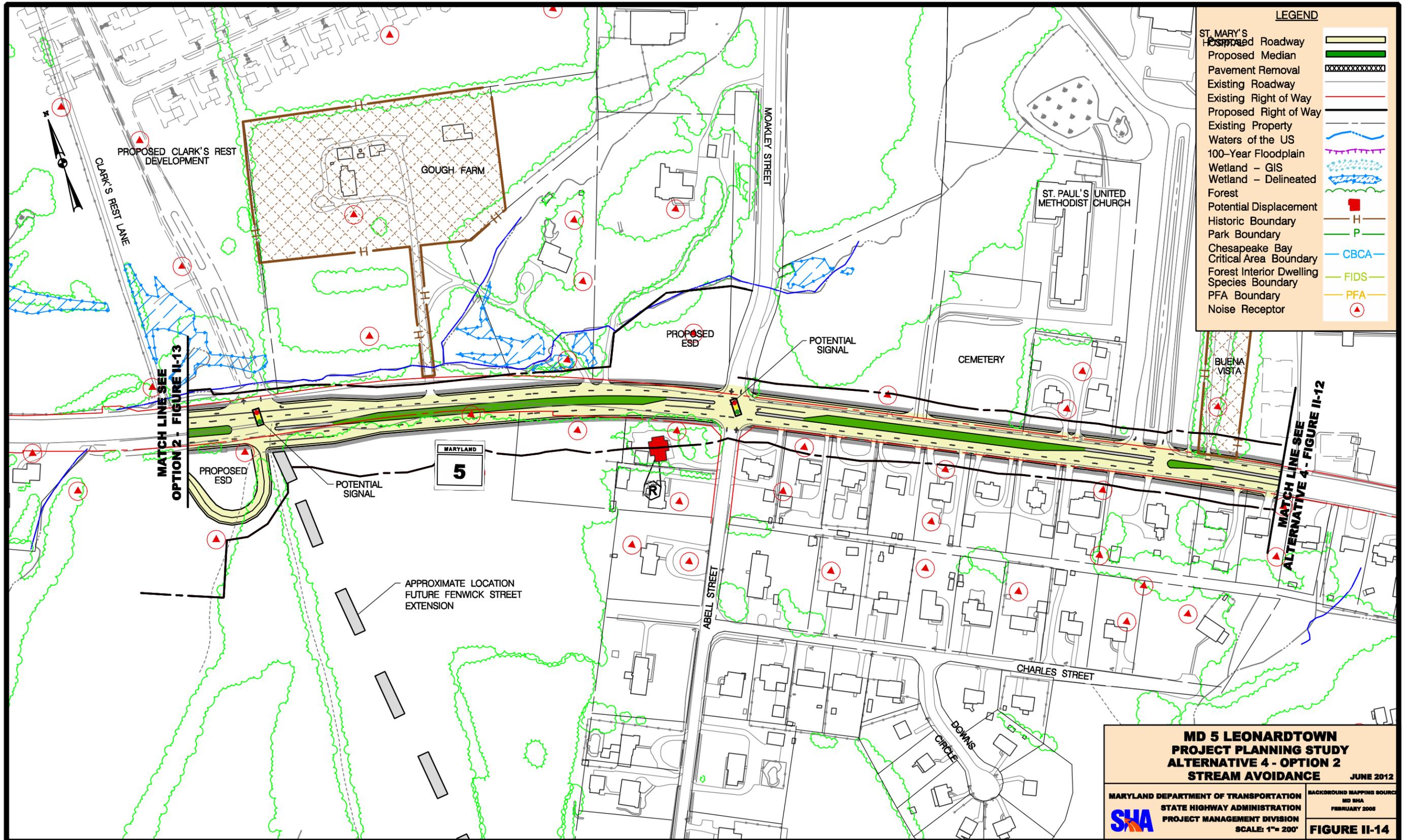
LEGEND

- Proposed Roadway
- Proposed Median
- Pavement Removal
- Existing Roadway
- Existing Right of Way
- Proposed Right of Way
- Existing Property
- Waters of the US
- 100-Year Floodplain
- Wetland - GIS
- Wetland - Delineated
- Forest
- Potential Displacement
- Historic Boundary
- Park Boundary
- Chesapeake Bay Critical Area Boundary
- Forest Interior Dwelling Species Boundary
- PFA Boundary
- Noise Receptor

**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
ALTERNATIVE 4 - OPTION 2
STREAM AVOIDANCE**

JUNE 2012

| | |
|---|---|
| <p>MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION PROJECT MANAGEMENT DIVISION</p> <p>SHA</p> | <p>BACKGROUND MAPPING SOURCE MD SHA FEBRUARY 2005</p> |
| <p>SCALE: 1" = 200'</p> | <p>FIGURE II-13</p> |



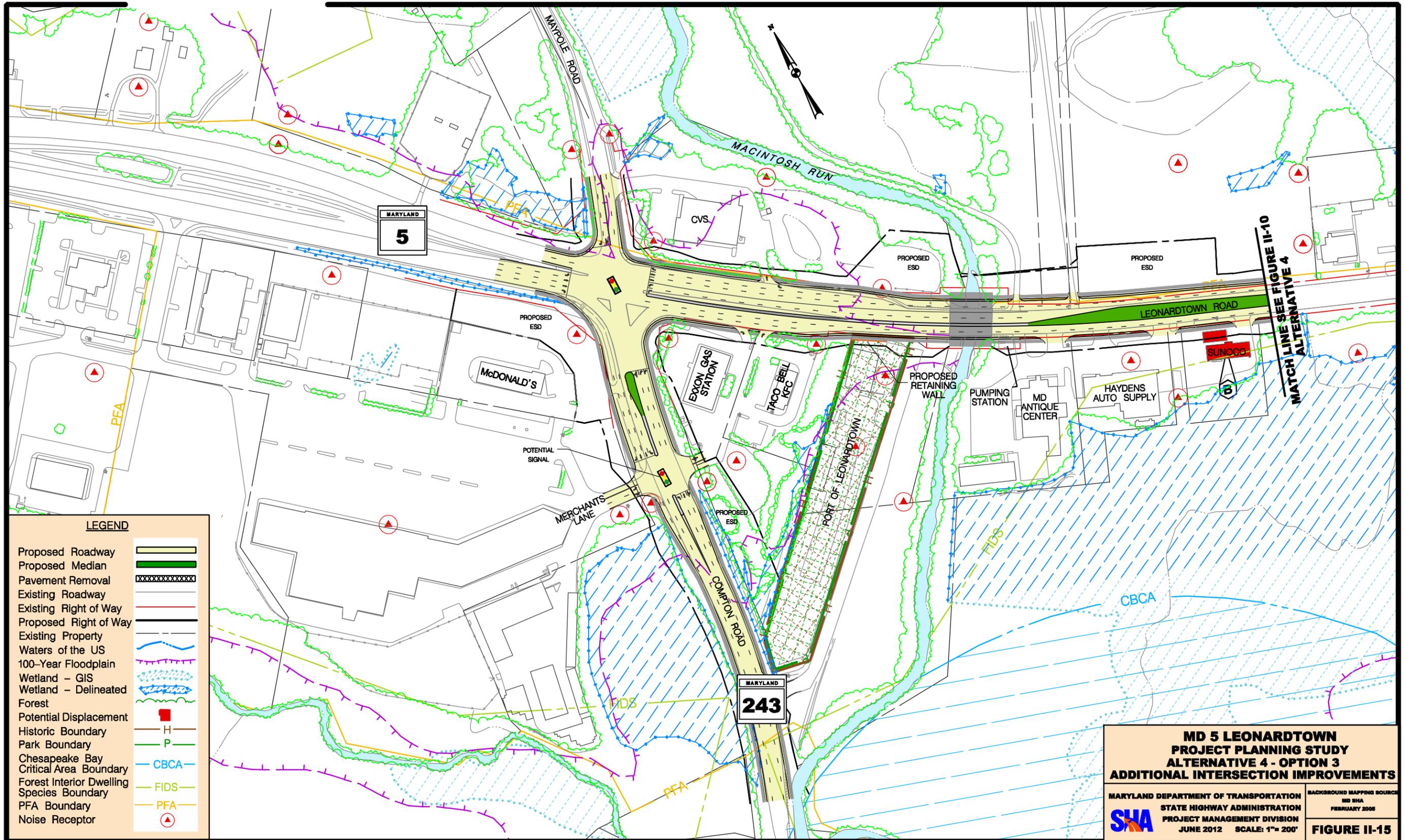
LEGEND

| | | |
|---------------------|---|--|
| ST. MARY'S Hospital | Proposed Roadway | |
| | Proposed Median | |
| | Pavement Removal | |
| | Existing Roadway | |
| | Existing Right of Way | |
| | Proposed Right of Way | |
| | Existing Property | |
| | Waters of the US | |
| | 100-Year Floodplain | |
| | Wetland - GIS | |
| | Wetland - Delineated | |
| | Forest | |
| | Potential Displacement | |
| | Historic Boundary | |
| | Park Boundary | |
| | Chesapeake Bay Critical Area Boundary | |
| | Forest Interior Dwelling Species Boundary | |
| | PFA Boundary | |
| | Noise Receptor | |

**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
ALTERNATIVE 4 - OPTION 2
STREAM AVOIDANCE**

JUNE 2012

| | |
|--|---|
| <p>MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION PROJECT MANAGEMENT DIVISION</p> | <p>BACKGROUND MAPPING SOURCE MD SHA FEBRUARY 2008</p> |
| | <p>SCALE: 1" = 200'</p> |
| | <p>FIGURE II-14</p> |

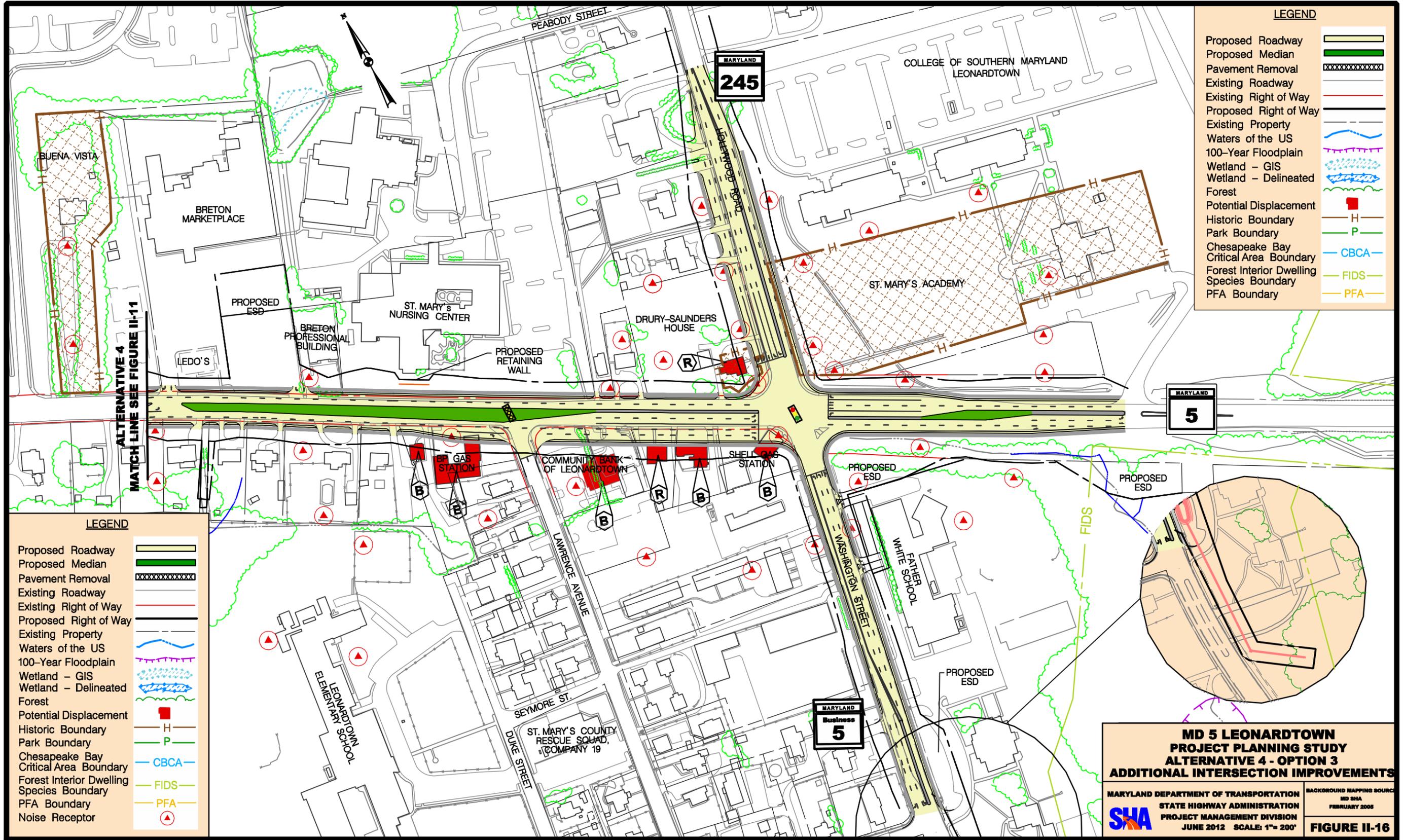


LEGEND

- Proposed Roadway
- Proposed Median
- Pavement Removal
- Existing Roadway
- Existing Right of Way
- Proposed Right of Way
- Existing Property
- Waters of the US
- 100-Year Floodplain
- Wetland - GIS
- Wetland - Delineated
- Forest
- Potential Displacement
- Historic Boundary
- Park Boundary
- Chesapeake Bay Critical Area Boundary
- Forest Interior Dwelling Species Boundary
- PFA Boundary
- Noise Receptor

**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
ALTERNATIVE 4 - OPTION 3
ADDITIONAL INTERSECTION IMPROVEMENTS**

| | |
|---|--|
| MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION PROJECT MANAGEMENT DIVISION JUNE 2012 SCALE: 1" = 200' | BACKGROUND MAPPING SOURCE MD SHA FEBRUARY 2006 |
| FIGURE II-15 | |



LEGEND

| | |
|---|--|
| Proposed Roadway | |
| Proposed Median | |
| Pavement Removal | |
| Existing Roadway | |
| Existing Right of Way | |
| Proposed Right of Way | |
| Existing Property | |
| Waters of the US | |
| 100-Year Floodplain | |
| Wetland - GIS | |
| Wetland - Delineated | |
| Forest | |
| Potential Displacement | |
| Historic Boundary | |
| Park Boundary | |
| Chesapeake Bay Critical Area Boundary | |
| Forest Interior Dwelling Species Boundary | |
| PFA Boundary | |
| Noise Receptor | |

LEGEND

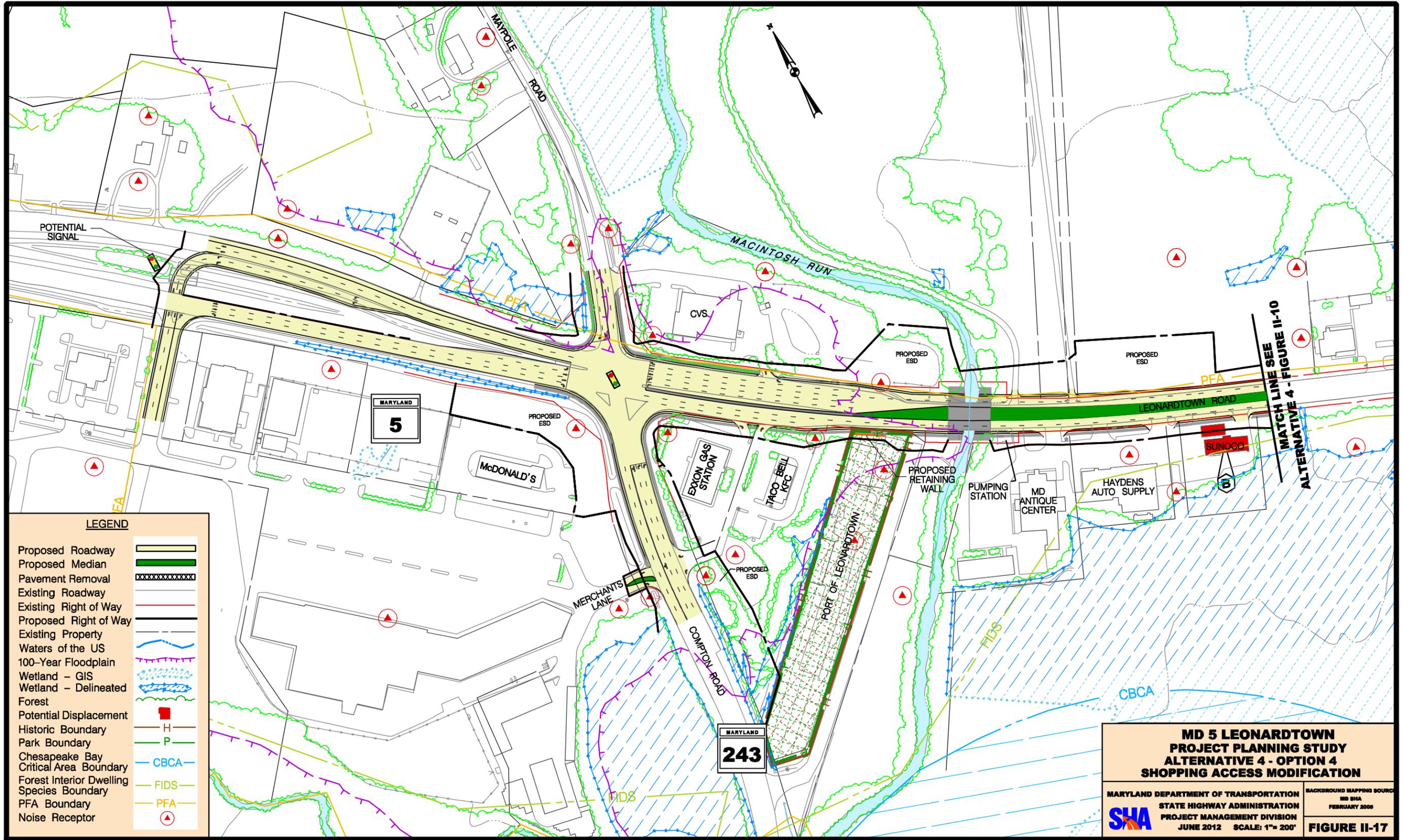
| | |
|---|--|
| Proposed Roadway | |
| Proposed Median | |
| Pavement Removal | |
| Existing Roadway | |
| Existing Right of Way | |
| Proposed Right of Way | |
| Existing Property | |
| Waters of the US | |
| 100-Year Floodplain | |
| Wetland - GIS | |
| Wetland - Delineated | |
| Forest | |
| Potential Displacement | |
| Historic Boundary | |
| Park Boundary | |
| Chesapeake Bay Critical Area Boundary | |
| Forest Interior Dwelling Species Boundary | |
| PFA Boundary | |
| Noise Receptor | |

**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
ALTERNATIVE 4 - OPTION 3
ADDITIONAL INTERSECTION IMPROVEMENTS**

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
PROJECT MANAGEMENT DIVISION
JUNE 2012 SCALE: 1" = 200'

BACKGROUND MAPPING SOURCE:
MD SHA
FEBRUARY 2005

SHA **FIGURE II-16**



LEGEND

- Proposed Roadway
- Proposed Median
- Pavement Removal
- Existing Roadway
- Existing Right of Way
- Proposed Right of Way
- Existing Property
- Waters of the US
- 100-Year Floodplain
- Wetland - GIS
- Wetland - Delineated
- Forest
- Potential Displacement
- Historic Boundary
- Park Boundary
- Chesapeake Bay Critical Area Boundary
- Forest Interior Dwelling Species Boundary
- PFA Boundary
- Noise Receptor

**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
ALTERNATIVE 4 - OPTION 4
SHOPPING ACCESS MODIFICATION**

| | |
|--|--|
| MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION PROJECT MANAGEMENT DIVISION JUNE 2012 SCALE: 1" = 200' | BACKGROUND MAPPING SOURCE MD SHA FEBRUARY 2006 |
| FIGURE II-17 | |

III. EXISTING ENVIRONMENT AND IMPACTS ANALYSIS

A. Social, Economic, and Land Use Considerations

1. Social Environment

a) Population

U.S. Census data shows that the MD 5 project is located within census tracts 9954.00 BG 2, 9954.00 BG 3, 9955.00 BG 2 and 9955.00 BG 3 (Figure III-1). Table III-1 shows the upward trend in population and housing statistics for St. Mary’s County, and the project study area.

Table III-1: Population and Housing Characteristics, 1990 to 2030

| | St Mary’s County | | | Leonardtown | | |
|-----------------------------------|------------------|--------|---------|-------------|-------|--------|
| | 1990 | 2000 | 2030 | 1990 | 2000 | 2030 |
| Population | 75,974 | 86,211 | 151,500 | 1,475 | 1,896 | 3,254* |
| Population Growth Rates | - | 13.5% | 75.7% | - | 28.5% | 71.6% |
| Housing Units | 27,863 | 34,081 | - | 613 | 646 | - |
| Housing Units Growth Rates | - | 22.3% | - | - | 5.4% | - |

Source: U.S. Census historic data (years 2005 and 2007 are estimates) and Maryland Department of Planning (MDP) projections (revised November 2010)

* Population projections for Leonardtown do not reflect MDP’s revised (increased) projections for St. Mary’s County that were completed in 2010 U.S. Census Bureau 1990 and 2000.

Ethnic characteristics for St. Mary’s County and the study area are depicted in Table III-2 which summarizes the available 2010 demographic data. However, since 2010 data for public assistance, poverty, and Census tract block groups are not yet available, 2000 data are used. The block groups in the study area range from 0 percent (BGs 2009, 3009, 3013) to 55 percent (BG 3000) minority. Census Tracts 7009.04 BG 1 and 7011.01 BG 5 have higher percentages of minorities than the study area as a whole (55.2%), with a 69.7 percent and 56.9 percent minority, respectively.

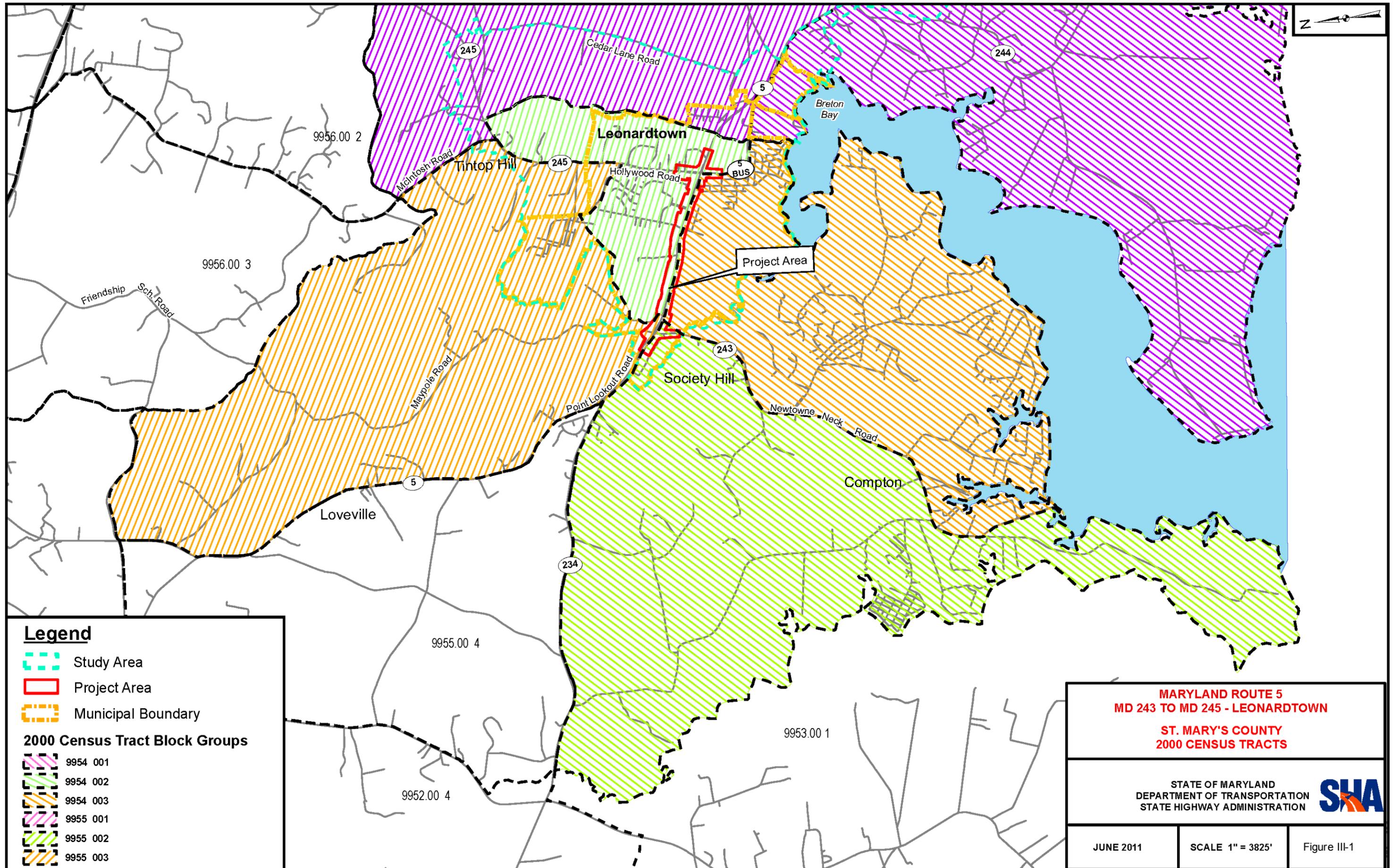


Table III-2: Racial and Ethnic Characteristics of County and Study Area Block Groups

| CENSUS AREA | TOTAL POPULATION | MINORITY POPULATION ² (% OF TOTAL) | HISPANIC POPULATION ³ (% OF TOTAL) | TOTAL HOUSEHOLDS | HOUSEHOLDS RECEIVING PUBLIC ASSISTANCE (% OF TOTAL) | INDIVIDUALS BELOW POVERTY LEVEL (% OF TOTAL) (1999 INCOME DATA) |
|---|---|---|---|--------------------------|---|---|
| Maryland | 5,773,552 (2010 Data) | 2,414,268 (42%) (2010 Data) | 470,362 (8%) (2010 Data) | 2,378,814 (2010 Data) | 47,643 (2%) (2000 Data) | 438,676 (9%) |
| St. Mary's County | 105,151 (2010 Data) | 16,691 (21%) (2010 Data) | 2483 (2%) (2010 Data) | 41,282 (2010 Data) | 662 (2%) (2000 Data) | 6,031 (7%) |
| Leonardtown (Incorporated Place) | 2,930 (2010 Data) | 675 (23%) (2010 Data) | 56 (2%) (2010 Data) | 1,067 (2010 Data) | 29 (5%) (2000 Data) | 330 (22%) |
| BLOCK GROUP AND BLOCK DATA (CENSUS YEAR 2000 DATA) | | | | | | |
| CT 9955, Block Group 001 | 2,605 | 390 (15%) | 18 (1%) | 897 | 18 (2%) | 156 (6%) |
| CT 9955, Block Group 002 | 814 | 186 (23%) | 12 (2%) | 165 | 2 (1%) | 49 (6%) |
| Block 2004 | 366 | 48 (13%) | 3 (<1%) | 69 | --- | --- |
| Block 2008 | 50 | 24 (48%) | 0 (0%) | 3 | --- | --- |
| Block 2009 | 13 | 0 (0%) | 0 (0%) | 9 | --- | --- |
| Block 2010 | 75 | 4 (5%) | 0 (0%) | 32 | --- | --- |
| Block 2012 | Area of The College of Southern Maryland/Leonardtown Campus, which has no on-site student housing | | | | | |
| Block 2013 | 163 | 84 (52%) | 7 (4%) | 9 | --- | --- |
| CT 9955, Block Group 003 | 761 | 151 (20%) | 1 (<1%) | 291 | 6 (2%) | 162 (21%) |
| Block 3009 | 7 | 0 (0%) | 0 (0%) | 4 | --- | --- |
| Block 3011 | 154 | 53 (34%) | 1 (<1%) | 46 | --- | --- |
| Block 3013 | 8 | 0 (0%) | 0 (0%) | 3 | --- | --- |
| CT 9954, Block Group 001 | 1,541 | 103 (7%) | 83 (5%) | 568 | 7 (1%) | 53 (3%) |
| CT 9954, Block Group 002 | 1,245 | 120 (10%) | 15 (1%) | 485 | 25 (5%) | 93 (8%) |
| Block 2000 | Commercial area at MD 5/MD 243 intersection with no households | | | | | |
| Block 2001 | Commercial area (includes Leonardtown Centre) at MD 5/MD 243 intersection with no households | | | | | |
| CT 9954, Block Group 003 | 2,960 | 466 (16%) | 44 (2%) | 1,131 | 29 (3%) | 230 (8%) |

| CENSUS AREA | TOTAL POPULATION | MINORITY POPULATION ² (% OF TOTAL) | HISPANIC POPULATION ³ (% OF TOTAL) | TOTAL HOUSEHOLDS | HOUSEHOLDS RECEIVING PUBLIC ASSISTANCE (% OF TOTAL) | INDIVIDUALS BELOW POVERTY LEVEL (% OF TOTAL) (1999 INCOME DATA) |
|-------------|--|---|---|------------------|---|---|
| Block 3000 | 78 | 43 (55%) | 0 (0%) | 35 | --- | --- |
| Block 3001 | 434 | 190 (44%) | 2 (<1%) | 190 | --- | --- |
| Block 3002 | Parkland area (Port of Leonardtown) with no households | | | | | |

- 1 Shaded cells indicate percentages greater than the state and/or county percentages.
- 2 Includes all persons who consider themselves a race other than “White only.”
- 3 Hispanic populations are those persons who identify themselves as “Hispanic” or “Latino” on the Census 2010 or American Community Survey questionnaire. Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person’s parents or ancestors before their arrival in the United States. People who identify themselves as “Hispanic” can be of any race.

b) Environmental Justice

Executive Order (EO) 12898 “Federal Actions to Address Environmental Justice in Minority and Low-Income Populations” was signed on February 11, 1994. The EO requires the assessment of disproportionately high and adverse human health and environmental effects on minority and low-income populations resulting from proposed federal actions. The EO reaffirms the provisions of Title VI of the Civil Rights Act of 1964 and related statutes, emphasizing the incorporation of those provisions with existing planning and environmental processes. EO 12898 mandates that low-income along with minority populations, should be investigated to ensure that they are not excluded from the benefits of the project, or subjected to discrimination caused by federal programs, policies and activities.

Baseline demographic information at the Census block group level was obtained from the 2000 U.S. Census to preliminarily identify the locations of minority and low-income populations. The block group data was compared to overall project area totals to identify concentrations of minority and low-income populations.

According to SHA’s guidelines, minority means a person who is:

- Black (a person having origins in any of the black racial groups of Africa)

- Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture origin, regardless of race)
- Asian American (a person having origins in any of the original peoples of the Far East, South East Asia, the Indian subcontinent, or the Pacific Islands)
- American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition)

Low-income is defined as persons whose median household income is at or below the Department of Health and Human Services (DHHS) poverty guidelines for each given year. For 2006, the threshold is \$9,800 for the first person per family unit, and \$3,400 for each additional person. The poverty guidelines issued by the DHHS are abstracted from the original poverty thresholds updated each year by the United States Census Bureau.

U.S. Census data compiled for St. Mary's County indicate that this rural county has substantially fewer minority populations when compared to statewide racial percentages. The county also has slightly fewer persons and households living below the poverty level or receiving public assistance income. This information does not indicate the presence of any county-wide regional EJ populations; however it does not preclude the presence of potential EJ populations within the project area as seen below from the data compiled at the block level.

Data compiled for the Town of Leonardtown indicate that the town has a higher percentage of minorities than the county as a whole; but this percentage is less than the statewide percentage. The percentage of Hispanic persons in the town is less than both the county and state percentages. Of important note, is the finding that the percentage of persons living below poverty and the percentage of households receiving public assistance are substantially greater for the town than the percentages for the county or the state. This information indicates a potential for EJ concerns in Leonardtown, related to both minorities and low income/poverty populations.

Census Tract 9955.00 Block Group 3

Census Tract 9955.00, Block Group 3 extends across the northern portion of the study area and extends across a small portion of the project area in the vicinity of the MD5/MD 243 intersection. Approximately less than one-tenth of the project area is located within this block group. Two EJ population classifications are identified in this area and include minority persons and persons below the poverty level. Poverty levels were identified to be significantly higher in this block group (21%) when compared to Maryland (9%) and St. Mary's County (7%). Minority populations of 20% were also identified to be higher than the county average of 18%, but lower than the state at 36%. The project area includes portions of three blocks within Block Group 3 (Blocks 3009, 3011, and 3013). The more detailed block data were used in an attempt to further define potential EJ areas in (or immediately next to) the project area. Blocks 3009 and 3013 have total population counts that are exceptionally small (7 and 8, respectively), and collectively represent only 2% of the total block group population. These blocks extend within areas of woodland and farmland to the east of MD 234 and there are no residences in these blocks in the portions that extend into or near the project area. Block 3011 contains 53 minority persons or approximately 34% of the total population. This is higher than St. Mary's County (18%), but slightly lower than the minority population for the state (36%). There are some residences in this block located near the project area; however, most of the population in this block is located along MD 243, east of the project area and along MD 5 north of the project area (there is only one residential property in Block 3011 located within the project area, in the northeast quadrant of the MD 5/MD 243 intersection). Therefore the high percentages of minority people in this large rural block group do not represent an actual potential EJ population of concern within or near the MD 5 project area.

Census Tract 9954.00, Block Group 2 is a large block group extending from the western edge of the study area (in the vicinity of the MD 5/MD 243 intersection) west to St. Clements Bay. Less than one-tenth of the study project area extends into this block group and the primary development in this part of the study area is commercial, including the Leonardtown Centre shopping center. The data indicate that there are two potential EJ population classifications identified in this block group, including relatively high rates of persons receiving public

assistance and persons below poverty. Households receiving public assistance were identified to include 5% of the population. This is slightly higher than Maryland's and St. Mary's County's averages of 2%. Individuals below poverty level were identified at 8% which is slightly higher than St. Mary's County (7%), but lower than Maryland (9%). Census blocks 2000 and 2001 are located within the western portion of the project area in the vicinity of the MD 5/MD 243 intersection. These blocks encompass the commercial development, including the establishment fronting the intersection and the Leonardtown Centre shopping center; therefore no population is identified in the census data base for the blocks as noted on Table 3.

Census Tract 9955.00, Block Group 2 is located along the north and eastern sections of the study area, extending south to encompass the area surrounding the MD 5/MD 245 intersection as seen on Figures 10 and 11. This encompasses approximately half of the MD 5 project area and much of this portion of the project area is commercial and institutional development fronting MD 5, including the St. Mary's Hospital and Nursing Center. The percentage of minorities for this block group is 23%, which is less than the percentage for Leonardtown and the state as a whole, but greater than the percentages for St. Mary's County. The project area extends over six census blocks within Block Group 2 – the following provides information for the various blocks:

- Block 2004 encompasses the St. Mary's Hospital, The Marcey House (halfway house for addiction), and The Estates at Singletree (a middle to upper middle class subdivision behind the hospital grounds. No substantial EJ population has been identified for this block and the portion of this block fronting the MD 5 corridor and project area is undeveloped (slated for the approved Clarks Farm Development).
- Block 2008 encompasses the St. Paul's United Methodist Church and cemetery, the Breton Marketplace, and the St. Mary's Nursing Home. The population of people living in this area is primary residents within the group quarters of the Nursing Home. It has a high minority rate (48%), accounting for 24 people out of a total 50.
- Block 2009 extends along the western side of MD 245 in the vicinity of the MD 5 intersection. It includes a cluster of residents fronting Hollywood Drive that may be

affected by the proposed improvements; however, no minority or low income people are identified for this area.

- Block 2010 does not include any residences for the portion of the block in and near the project area, but includes large areas of the Government Center Complex (including the St. Mary's County Detention Center) for areas of the study area outside of the project area.
- Block 2012 encompasses the College of Southern Maryland/Leonardtown Campus, which does not provide on-site student housing; therefore no population is identified as living in this block.

Block 2013 has one of the highest rates (52%) of minority residents when compared to other project area blocks. The data also identified a Hispanic population of 4% which is equal to Maryland's percentage of 4%, but greater than St. Mary's County at 2%. Block 2013 extends along the southeastern edge of the Leonardtown's older downtown area, which includes several small apartment buildings. However the portion within the project area includes the Father Andrew White School, which does not include housing.

Census Tract 9954.00, Block Group 3 is located along the southern portion of the Study Area, extending from the MD 5 corridor to Breton Bay, including the western portion of the older developed areas of Leonardtown as seen on Figures 10 and 11. This section of the project area encompasses a little less than half the total project area and includes scattered commercial development fronting MD 5 at the more northern end of the project area, with residential development, mixed with commercial development and school facilities along MD 5 in the southern end. Households receiving public assistance were identified to include 3% of the population. This is slightly higher than Maryland's and St. Mary's County's percentages of 2%. Individuals living below the poverty level were identified at 8% which is higher than the St. Mary's County rate (7%), but lower than Maryland rate (9%). The study area extends over three census blocks within Block Group 3 – the following provides information for the various blocks:

- Block 3002 encompasses the small sliver of land along the bank of McIntosh Run that is parkland (Port of Leonardtown) and has no residents.

- Block 3000, which lies in the southwest quadrant of the MD 5/MD 245 intersection, has the highest rate (55%) of minority populations within the project area. It includes multiple small apartment units that extend into the project area.
- Block 3001 encompasses developed areas north and west of the town center, including the residential properties that front MD 5 in the project area. It has a 44% minority population rate, which is higher than the rates for Maryland (36%) and St. Mary's County (18%). This block includes two apartment complexes, Leonard along the southern boundary the project area, extending own Village (35 units) and Leonard's Freehold (34 units), which are not immediately adjacent to MD 5 but have been identified by town officials as being home for multiple minority households. In addition, the New Towne Village is located in this census block, which is an apartment complex of 35 units for adults 62+ years of age or disabled.

Block 2013 has one of the highest rates (52%) of minority residents when compared to other project area blocks. The data also identified a Hispanic population of 4% which is equal to Maryland's percentage of 4%, but greater than St. Mary's County at 2%. Block 2013 extends along the southeastern edge of the Leonardtown's older downtown area, which includes several small apartment buildings. However the portion within the project area includes the Father Andrew White School, which does not include housing.

Bureau of Census data are the most accurate data available to preliminary identify the presence of EJ populations, but this information does not necessarily locate specific geographic concentrations. The block group boundaries for those block groups within the study area, cover large geographic areas outside of the study area, including the narrow project area. In an effort to better identify the location of potential EJ populations in the study area and relatively small project area, individual block data were obtained and reviewed. Block level data indicated the presence of minority populations within nearly half of the blocks located within the study area and project area. Of particular importance is the high minority population rates identified within Census Tract 9954, Block Groups 3. This preliminary assessment has identified potential areas of concern. These areas include the residences extending from Abell Street and extending south along MD 5 to the MD 245 intersection. The residential area immediately northwest of MD 326

(Washington Street)/Business 5 and west of MD 5 is also included as a potential concentration of an EJ population.

During the Project Scoping Meeting (August 29, 2007), the Leonardtown representative indicated that there are no specific concentrations of low-income or minority populations in the project area. Field investigations during the course of the environmental studies (including noise monitoring along the corridor) indicated that the residents living in the homes adjacent to the MD 5 roadway did not appear to be associated with any EJ population. Additional coordination with local municipal officials indicated that some minority (non-white) residents lived in the upper middle-class community of Singletree, off of Moakley Road, which is north of the project area. Officials also identified the apartment complex of “Leonard’s Freehold” and “Leonardtown Village” off of Lawrence Road, past the elementary school, as an area of minority and lower-income residents. This complex is about 3 to 4 blocks south of the project area and includes 69 dwelling units.

c) Effects on Minorities, Low-Income, Handicapped, and Elderly Populations

It has been determined that the proposed project improvements will have no disproportionate impact to persons of low income or minority populations. The proposed build alternatives require only two to three residential displacements. Two of the residential property displacements are located in the area identified as an area with a potential environmental justice population and are common to all the alternatives under consideration. The proposed displacements are unavoidable given that the proposed improvements involve on-alignment construction within an existing developed corridor. In particular, all proposed residential displacements are located in the vicinity of existing intersections proposed for improvements (the MD 245 intersection and the Abell/Moakley Street intersection).

None of the alternatives currently under consideration are expected to result in a negative impact to elderly or handicapped individuals. All new sidewalks and pedestrian facilities will be designed in accordance with applicable American with Disabilities Act (ADA) requirements. A Maintenance of Traffic plan will be developed that will include staging and phasing of the project to ensure appropriate access and circulation during construction.

Title VI Statement

It is the policy of the SHA 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, or physical or mental handicap in all SHA program projects funded in whole or in part by the FHWA. The SHA will not discriminate in highway planning, highway design, highway construction, right-of-way acquisitions, or the provision of relocation advisory assistance. This policy has been incorporated in all levels of the highway planning process to ensure that proper consideration may be given to the social, economic, and environmental effects of all highway projects. Alleged discriminatory actions should be addressed for investigation to the Equal Opportunity Section of the SHA, to the attention of Ms. Jennifer Jenkins, Chief, Office of Equal Opportunity, 707 North Calvert Street, Baltimore Maryland 21202.

The SHA Equal Opportunity program also addresses Executive Order 13166 which is a presidential directive to federal agencies to ensure people who have Limited English Proficiency (LEP) have meaningful access to programs, services and benefits. Limited Access Proficiency is defined as one who does not speak English as a primary language and has limited ability to read, speak, write or understand English. Originally issued on August 11, 2000, the goal of this Executive Order is to improve or provide meaningful access to federally conducted and federally assisted programs and activities for persons with LEP, as well as ensure LEP individuals receive appropriate language assistance services. No LEP populations have been identified in the study area.

d) Public Involvement

The SHA solicited the participation of the public, which included both minority and low-income populations, through informational mailings, workshops, and focus group meetings. Public Notice for the project was initiated in April 2007 and invited comments and requests to be included on the project planning mailing list. In November 2007, an elected officials briefing for the project was held with the Leonardtown Commissioners, the Town's mayor and the St.

Mary's County Commissioners. A project newsletter with a survey was mailed in the fall of 2007 to persons included on an extensive area wide mailing list in order to inform the public about the project's Informational Open House, project background, project's schedule and to solicit comments.

On December 11, 2007, an Informational Open House meeting was held at the Leonardtown Middle School. Approximately 70 members of the residential and business communities, as well as elected officials attended the Open House. The purpose of the Open House was to inform the public of the project planning study and receive public comments regarding key issues and concerns. In addition, self addressed comment cards were handed out at the meeting. The most common comments that were received at the Open House were the difficulty in making left turns or crossing MD 5, speeding, traffic congestion and delays, the need for improved pedestrian access, and accommodating horse-drawn vehicles. Approximately 300 survey cards from the project newsletter mailed prior to the Open House were received. Comments generally mirrored the concerns raised at the Open House.

A second Open House meeting was held on Wednesday December 10, 2008 at the Leonardtown Volunteer Fire Department Fire Hall. The purpose of the meeting was to present the alternatives under consideration and gather public input. Approximately 75 community members attended the meeting and provided comments about issues related to the project. Major issues raised included the need for a traffic signal at the intersection of MD 5 with Abell/ Moakley Streets, the need to slow traffic through the corridor, the need to address safety at the various entrances along MD 5, desire to minimize impacts to residences along MD 5 and concern over maintaining safe left turns.

In summary, as a result of the Informational and Alternative Public Workshops and Focus Group meetings, concerns of local citizens and business owners have been incorporated into the design of each build alternative. Refer to Section V Comments and Coordination for further information.

e) **Community Facilities and Services**

As the County Seat and the only incorporated municipality in the county, Leonardtown supports many community facilities and services, not just for local residents but for the county-wide region. This includes government offices, medical services, and educational facilities. Community facilities and services were inventoried within one mile of the project limits (Figure III-2).

As the county seat for St. Mary's County, Leonardtown has many governmental, non-profit, and service organizations within its municipal boundaries and immediately adjacent to the town within the county-identified Leonardtown Development District. These facilities include the County Courthouse, the County Commissioners Office, and most other local offices for state and federal government agencies. In the late 1970s, the county gradually shifted government offices from the older Town Center of Leonardtown to the existing Government Center Complex along MD 245, northeast of the project area. However, the county courts and town government offices have stayed in the downtown center, at "the Square," surrounding Washington and Fenwick Streets. The Government Center Complex is a large complex that includes not only county government offices but also the St. Mary's County Library, the St. Mary's County Detention Center, and a the Leonard Hall Recreation Center, and Miedzinski Park.

There are also multiple public, private, and specialty educational facilities in the study area. The study area is entirely within the Leonardtown School District of the St. Mary's County Public Schools. The various educational facilities in or near the study area include:

- Leonardtown Elementary School – a public school located immediately adjacent to the project area.
- Leonard Hall Junior Naval Academy – private located next to the Government Center Complex off of MD 245.
- Father Andrew White School – private school located at the intersection of MD 5 and MD 245.

- St. Mary’s Ryken High School – private school located just south of the town along MD 5.
- St. Mary’s County Home and Hospital School – located next to the St. Mary’s Hospital, along Moakley Street.
- St. Mary’s County Evening High School and Junior College – located next to the St. Mary’s Hospital, along Moakley Street.
- Sunshine Day Care – located off of Moakley Street.
- College of Southern Maryland (CSM) – located in the southeast quadrant of the MD 5/MD 245 intersection in the project area. The Leonardtown campus was established in 1997. The college originally served as “community college”, however, in 2000, three campuses combined to form CSM as a regional college. In 2003, the CSM Leonardtown campus was expanded and now encompasses a large area next to the MD 5/MD 245 intersection.

The St. Mary’s Hospital is a large complex next to the project area. It is a private, not-for-profit, acute care, 108-bed hospital that has served the community since 1912. The hospital completed major expansion projects from 2002 to 2004. This complex includes the schools mentioned previously in addition to an Emergency Care Center, a Health Connections Center, a Laboratory, and The Marcey Halfway House (residence facility for treating addictions). The St. Mary’s Nursing Home, established in 1965, is located next to the hospital. The 212-bed center is a long-term care and rehabilitation facility. The main driveway access to the hospital is from MD 5, with additional access from Moakley Street and Hollywood Drive (MD 245). Though immediately adjacent to MD 5, the nursing home is accessed from Hollywood Drive (MD 245) by way of Peabody Street.

There are two major county recreational facilities located at the Government Complex Center along MD 245 just northeast of the project area. Miedzinski Park, located immediately adjacent to MD 245, is a 5-acre “flexible use athletic area” that includes a playground, picnic tables, restrooms, one baseball/softball field, and one soccer field. Leonard Hall Recreation Center is an

air-conditioned indoor athletic facility which hosts programs for indoor soccer, roller hockey, and basketball leagues.

Leonardtown officials recently acquired the Old State Highway Administration Garages property along MD 5 for conversion to municipal parkland. This is a 3-acre site located near the MD 243 intersection, along McIntosh Run. The property was identified as eligible for listing on the National Register of Historic Places and has two garage structures built in the 1930s. Currently the site includes the garage buildings and a few amenities, including a picnic table. The town has enhanced the recreational use of the park by creating the Port of Leonardtown which includes a winery and vineyard demonstration area, a picnic area, and a kayak launch into McIntosh Run. One of the existing historic buildings on the site has been renovated to house the winery and tour headquarters. The other building provides concessions, restrooms, and storage.

The emergency service providers in the study area include the following:

- St. Mary's County Sheriff – The office is based in the Government Center Complex along MD 245.
- St. Mary's Hospital Emergency Care Center – Access points for the hospital include the current main entrance at MD 5 in the project corridor and the entrance at MD 245 (this access point is proposed to become the main entrance under the hospital's expansion plans).
- St. Mary's County Department of Public Safety – a multi-faceted agency located at the Government Center. It provides 9-1-1 services through its Emergency Communications Division; disaster preparedness, response, mitigation and recovery services through its Emergency Management Division; and enforcement of animal regulations through the Animal Control Division. The three divisions work with all county and state law enforcement agencies, St. Mary's County Volunteer Fire and EMS department, as well as all local, state and federal government departments and agencies.
- Leonardtown Volunteer Rescue Squad (Company 19) – located in the Town Center off of Lawrence Avenue.
- Leonardtown Volunteer Fire Department (Company 1) – located in the Town Center off of Lawrence Avenue.

The project improvements in the corridor are proposed to facilitate more efficient traffic movement in the corridor; in particular travel through the corridor and access to and from secondary connecting roads will be improved. The goal will be to have consistent and safe conditions throughout the corridor. These improvements are expected to facilitate the response time of local emergency service providers and the travel for both through-traffic and local traffic in the corridor.

The SHA has solicited input from the local service providers (includes the Maryland State Police, St. Mary's County Fire Board Association, St. Mary's County Department of Public

Safety, St. Mary's Hospital, and St. Mary's County Sheriff's Office) to obtain their feedback on the proposed changes to access and traffic circulation patterns in the corridor. This effort includes identifying and addressing concerns related to service response times that may be caused by changes in traffic patterns and access during and after road construction. In particular, SHA identified the following as areas of concern and asked the service providers to provide responses so SHA can investigate and address potential adverse impacts during the development of design plans and sequence of construction activities for the Preferred Alternative.

- Proposed prohibition of the existing left turn from St. Mary's Hospital entrance onto southbound MD 5 as part of Alternatives 3 and 4 (and the associated Options).
- Prohibition of existing left turns from northbound MD 5 onto Lawrence Avenue and from Lawrence Avenue onto northbound MD5 as part of all Alternatives and Options.
- Prohibition of the existing right turn from MD 243 onto Merchant's Lane and the existing left turn from Merchant's Lane onto MD 243 under Option 4.

Coordination with these groups will continue. However, at this time the impacts to the emergency services' response times are considered negligible. While the changes in access appear to adversely affect select traffic movements at key intersections in the MD 5 corridor, the roadway geometry of the proposed improvements would allow emergency vehicles to make all proposed restricted movements, if needed. In addition, the proposed Alternatives 3 and 4 will include wider shoulders that can be used for the emergency vehicles if needed.

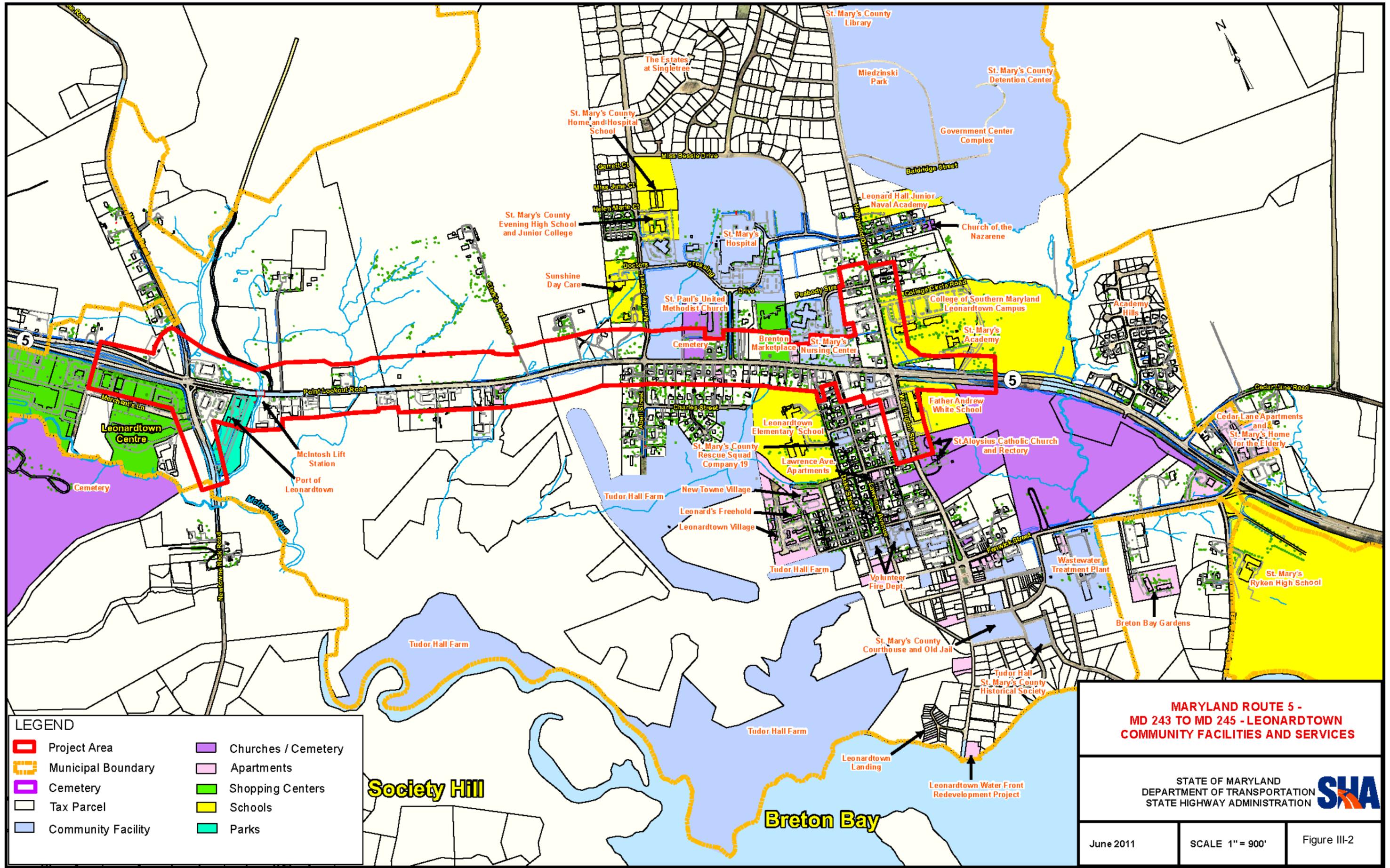
Given that the proposed improvements would not add capacity, it was determined that the proposed improvements would not affect the current level of use of public facilities such as schools or the use of the parkland discussed above. Private and other public land development activities proposed and on-going in the project corridor would have a relatively greater influence and effect on the level of use of local public facilities than the proposed road improvements. In particular the proposed large mixed-use developments that include Clark's Rest, Leonard's Grant, and Tudor Hall Village (all with planned access to the MD 5 project corridor) would have far greater impact to the county and town public facilities than this improvement project that is primarily focused on intersection and access control improvements.

The proposed improvements will also affect vehicular access to and from adjacent properties. It is proposed that some properties will have their access points consolidated and others will have redundant access points eliminated. In particular, the residential parcels along the western side of MD 5 extending from Abell Road to the north side of the BP Station include 16 single-family residences with direct access to MD 5, 9 of which have semi-circular driveways with 2 points of entry. Alternatives 3 and 4 (all options) will require reconfiguration of these driveways, including the possible elimination of one driveway point of entry for those properties with 2. This is also the case for a residential property on the east side of MD 5 just south of the St. Mary's Nursing Center (Breton Professional Building), which would be affected by all alternatives. The access management component of the proposed project improvements will continually be developed during the development of final design plans and right-of-way acquisitions. SHA will coordinate with the property owners along MD 5 for those properties where a reconfiguration of access is proposed. SHA will ensure that any change in access will provide sufficient space for turn-around movements to avoid the need to back-up onto MD 5.

Any changes to school bus routes related to the change in traffic patterns is expected to be minor since access changes associated with the proposed improvements do not include any local road closures or rerouting of traffic in residential areas. SHA will coordinate with the Leonardtown School District during final design to address maintenance of traffic concerns during project construction.

f) Displacements and Property Effects

The number of displaced businesses ranges from four (Alternatives 2 and 3) to 10 (Alternative 4 – Option 2), although some of these include vacant commercial properties. All alternatives would displace the following four businesses: The Sunoco Gas Station, The BP Gas Station, Medical Office Building (Dr. Boyd, Internal Medicine), and Shell Gas Station and Car Wash. Additional business impacts include the following:



LEGEND

| | |
|--------------------|---------------------|
| Project Area | Churches / Cemetery |
| Municipal Boundary | Apartments |
| Cemetery | Shopping Centers |
| Tax Parcel | Schools |
| Community Facility | Parks |

**MARYLAND ROUTE 5 -
MD 243 TO MD 245 - LEONARDTOWN
COMMUNITY FACILITIES AND SERVICES**

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

- Alternative 3 – one additional property that is currently vacant. Alternative 4 – three additional properties, two which are vacant and the third which is the Waring-Ahearn Insurance business.
- Alternative 4, Option 2 – four additional properties, three which are vacant and the fourth which is the Waring-Ahearn Insurance business.
- Alternative 4, Option 3 – four additional properties, two which are vacant, a third which is the Waring-Ahearn Insurance business, and the fourth which is identified as 2 units of commercial housing apartments.
- Alternative 4, Option 4 – three additional properties, two which are vacant and the third which is the Waring-Ahearn Insurance business.

Given that the proposed improvements are along an existing major collector road with development, particularly near the major intersections, it is not possible to completely avoid business displacements. Also, as previously noted in the discussion for all potential displacements (Section V.A.1), the 2-mile MD 5 project corridor includes a large number of parcels that are targeted for future redevelopment and development. In particular there are large areas zoned for PUD-M (Planned Unit Development-Mixed Use) on both sides of MD 5, which allows for mixed use residential and commercial development. Therefore, it has been determined that there is ample opportunity for finding replacement properties within the project corridor for the displaced businesses. It may also be possible to relocate some of the affected businesses on the same parcel, if the business owner chooses to remain on the same parcel. Given that the businesses will have the opportunity to relocate nearby in the same MD 5 corridor, the impacts to the Leonardtown community is expected to be negligible.

Three of the four commercial establishments impacted by all alternatives are located in an area with a potential EJ population. However two of these establishments are gas stations that can be easily relocated within the 2-mile project area of the MD 5 corridor without adversely affecting the residents' ability to access gas station service. The third establishment is a Medical Office for Internal Medicine. Given the availability of vacant property within the project area, this office should be able to be relocated within or near the community. In addition, Leonardtown is home

to the St. Mary's Hospital, a full service community hospital, and is considered the health care center for the county. The hospital (which is immediately across the road from the potential EJ population) is a non-profit facility, that promotes its dedication "to providing resources to the community that are not fully compensated." The residents within the potential EJ area of concern will continue to have easy access to full service medical care after the project is constructed.

The proposed improvements may also affect businesses that are not displaced, including the following impacts:

- Parcel 0032-0016-0177: Cedar Point Federal Credit Union – ATM is immediately adjacent to MD 5 and may require relocation for Alternatives 3 and 4 (all options).
- Parcel 0126-0005-0090: Mercantile Southern Maryland Bank – ATM is immediately adjacent to MD 5 and may require relocation for Alternatives 3 and 4 (all options).
- Parcel 0127-0015-0077: Breton Marketplace – Ledo Pizza is a separate structure from the main shopping center building and is adjacent to MD 5 and may require relocation or reconfiguration of entryway for Alternatives 3 and 4 (all options).
- Alternative 4 is a divided highway proposal and would restrict most access along the MD 5 project corridor to right-in and right-out movements. To minimize the length of new traffic patterns, this alternative also includes a jughandle at a proposed new intersection located midway through the corridor to allow for U-turns (the new intersection is to accommodate traffic for new major proposed developments, Clark's Rest and Tudor Hall Village).

Table III-3 summarizes the impacts associated with the various alternatives. (Also summarized in this section is a list of mitigation measures to be followed or considered.) Options 2 and 3 of the full-corridor alternative, Alternatives 3 and 4, would result in higher impacts overall. This is related to (1) the higher anticipated right-of-way requirements for the proposed improvements and (2) the associated impacts to developed parcels that include multiple commercial displacements. However, both the Leonardtown Comprehensive Plan (2010) and the St. Mary's

County Comprehensive Plan (2010) promote full-corridor improvements as proposed as part of Alternatives 3 and 4.

While residential and commercial displacements are unavoidable for the construction of improvements in an existing developed and developing corridor, SHA has attempted to align the proposed improvements to minimize the total number of displacements. Relocation of individuals and families displaced by this project will be accomplished in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 as amended by Title IV of the Surface Transportation Policies Act of 1987, and will be executed in a timely and humane fashion (refer to Appendix C – *Summary of the Relocation Assistance Program of the State Highway Administration of Maryland*). A right-of-way plan will be completed during final design and at that time, the local SHA District office will research and identify comparable available local replacement housing that displaced persons can consider when making a decision. Replacement housing must comply with the standards for decent, safe, and sanitary housing and be within the financial means of the displaced person. If comparable replacement dwellings are not available within the usual monetary limits for owners and tenants, or if available replacement housing is beyond their financial means, “housing as a last resort” would be provided to assure that replacement housing would be available for displaced persons.

It has been determined that there is opportunity for finding replacement properties within the immediate project area for the displaced residents. There are also multiple vacant lots along the MD 5 project corridor that can accommodate the relocation of the displaced businesses.

All right-of-way acquisitions would also be in accordance with the Uniform Act. All property owners from whom fee simple and perpetual ROW easements would be obtained would be compensated according to the Uniform Act and paid fair value for the affected property. A summary of the Relocation Assistance Program of the Maryland State Highway Administration is provided in Appendix A.

g) Neighborhoods and Communities

Transportation improvements can also affect community cohesion and interaction. The impact evaluation to determine effects on community cohesion is to identify if the proposed transportation improvements will create a barrier to existing cohesion and interaction and

determine whether the number of displacements within a community or neighborhood will reduce the remaining residences to the point of isolation. The potential number of residential displacements associated with all alternatives is not substantial (two to three single-family residences) and these displacements, which are located along MD 5, will not isolate the remaining residences along MD 5.

This project involves improvements to an existing corridor and does not introduce a new roadway through the existing community. However, MD 5 currently acts as a barrier for developments on either side of the four-lane roadway. The operating travel speed and existing road geometry make crossing the roadway difficult not only for vehicles but also for bikers and pedestrians. Currently there are two signalized intersections at the both ends of the project corridor at the intersections with MD 243 and MD 245. The signals and crosswalks at these locations assist pedestrians to safely access residences and businesses on both sides of the road. The expansion of the existing sidewalks along both sides of the corridor between these signalized intersections is proposed as part of all the build alternatives and this will enhance community cohesion. The addition of two traffic signals also proposed as part of Alternatives 3 and 4 at the intersection of MD 5 with Abell/Moakley Streets and at the intersection of MD 5 with the future Clark's Rest/Tudor Hall development access points, along with crosswalks will further enhance the overall community cohesion within the project area and within Leonardtown as a whole.

h) Effects on Aesthetics and Visual Quality

SHA is currently completing the design activities for the MD 5 Business Streetscape project along MD 5 business south of the MD 245 intersection with Maryland 5. The project is currently under construction and is schedule to be completed by fall of 2009. Following completion of the project, MD 5 Business (Washington Avenue) will be turned over to the Town of Leonardtown for ownership. SHA will coordinate with town officials during final design to assess which aesthetic treatments from this project can be carried into the MD 5 improvements. Elements will be incorporated in to the study alternatives as applicable.

Alternative 2 consists of minor construction and operational enhancement and will not substantially alter the existing visual context of the corridor. The proposed improvements associated with Alternatives 3 and 4 will include new sidewalks on both side of MD 5 and wider shoulders that will encourage pedestrian and bicycle traffic in the corridor in conformance with the Leonardtown Comprehensive Plan and the St. Mary's County Transportation Plan 2010. Of special note is the proposed Alternative 4 improvements – this alternative includes an 18-foot landscaped median.

Aesthetically, these improvements, along with the town's approved and proposed mixed-use development plans along the corridor, will facilitate the transformation of the existing road from the appearance of a rural collector to an urban collector within the town limits. The intent of the new sidewalks, wider shoulders for bicycle (and Old Order community horse-and-buggies), along with the use of aesthetic treatments associated with the on-going streetscape project in the Town Center, is to enhance the town's overall sense of place. Streetscape projects are intended to provide a safe and beautiful public environment for the urban community and a visually appealing sense of place. This includes landscaping features and lighting that is in character of the historic community while providing elements of safety.

This corridor is also identified as part of the Religious Freedom Byway that extends from the intersection with MD 234 to Point Lookout State Park at the southern tip of the county. Currently St. Mary's County is sponsoring the development of a Religious Freedom Byway Corridor Management Plan that is funded by the Federal Highway Administration through the National Scenic Byway Program. SHA will coordinate with the County during final design to ensure that the proposed transportation improvements are compatible with the goals of the Management Plan.

2. Economic Environment

a) Local and Countywide Employment Characteristics

The largest employer in St. Mary's County is the Naval Air Station Patuxent River (NASPR) with approximately 22,400 employees (including contractors), with approximately two-thirds of

the workers having residence in the county. The top three non-defense-related employers in the county are St. Mary's County Public Schools, St. Mary's Hospital (based in Leonardtown), and St. Mary's County Government (based in Leonardtown). Other large employers based in Leonardtown include the St. Mary's Nursing Center and the College of Southern Maryland. Given the number of employers in the county, Leonardtown and county residents have enjoyed a relatively high employment rate. Despite recent increases in unemployment nationwide, the county continues to maintain a lower than average unemployment rate.

While the NASPR has been a major economic influence on both the county and Leonardtown, the continued growth of St. Mary's Hospital, the development of the Leonardtown campus of the College of Southern Maryland, the refurbishment of the Leonardtown Town Square, the completion of the Leonardtown Wharf Waterfront Park project, and other focused town enhancements have led to an increasing rate of growth in Leonardtown in the last decade. This growth has exceeded both the State and County's growth rates.

Impacts on business and employment associated with the proposed action can involve the displacement/relocation of or encroachment on business properties, access changes, and changes in business visibility. These impacts could, in turn, affect the use and viability of a business. Short-term impacts associated with construction activities may also affect businesses. These temporary activities could include detours that move traffic away from businesses, change to or loss of access for a business, and lane closings/traffic congestion in the vicinity of the business that could cause patrons to consider traveling to other businesses not in the construction zone.

3. Land Use

a) Existing Land Use

The Town of Leonardtown recently updated its 2004 Leonardtown Comprehensive Land Use Plan. The new 2010 Comprehensive Plan states that the purpose of Leonardtown's Comprehensive Plan is "to protect and perpetuate the Town's unique atmosphere and small town character while enhancing its role as the historic and governmental center of St. Mary's County and as a vibrant residential and business center." Town officials recognize that the town went

through a period of decline but state in the Plan that the town “has reasserted itself economically” and “the downtown area is rebounding with various shops and restaurants; the town is rapidly becoming the health center, educational center, and center of government for St. Mary’s County.”

Nearly half of the land within the town limits is currently farmland or woodland. The developed areas include the older historic areas of the Town Center, the mixed commercial and residential strip development along MD 5, and the large institutional development areas associated with the St. Mary’s Hospital/Nursing Center complex, the College of Southern Maryland, and the newer Government Center complex. The main driveway access to the hospital is from MD 5, with additional access from Moakley Street and Hollywood Drive (MD 245). Currently, MD SHA District 5 is conducting design as part of a Crash Safety Improvement Project for the Moakley Street intersection. There are also two existing Planned Unit Development Neighborhoods within the town limits: The Estates at Singletree, off Moakley Street behind the hospital complex; and Academy Hills, south of the project area on the east side of MD 5. Leonardtown Landing is a new development of 26 townhouses overlooking Breton Bay next to the downtown area. The 248-acre Leonard’s Grant Planned Unit Development Neighborhood is completing its final phase of construction. This development of 340 residential units currently relies on access from Leonard’s Grant Parkway to MD 245. Existing land use is illustrated on Figure III-3.

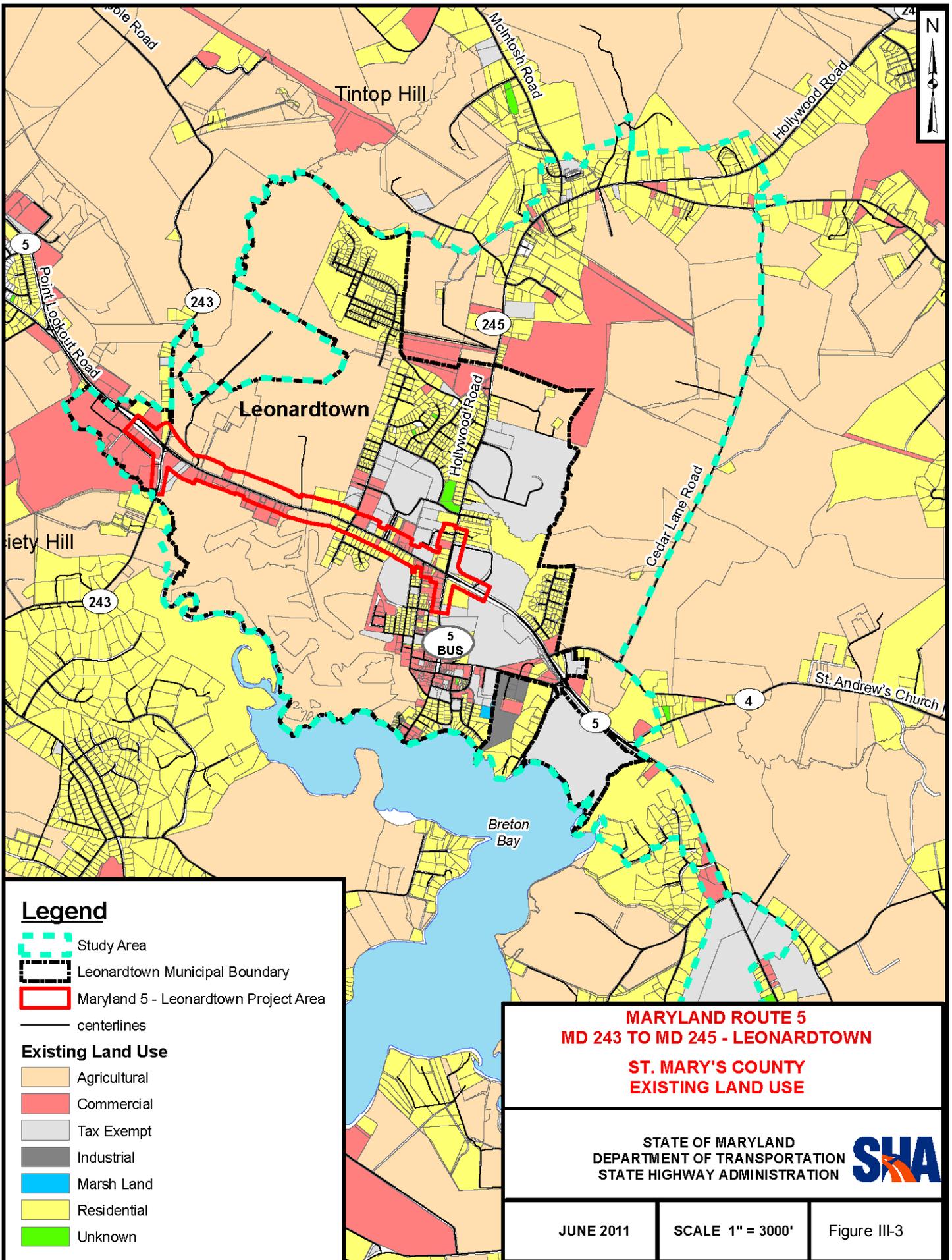
The Smart Growth Initiative requires the State to direct funding for highways and economic development to areas that are designated as PFAs. The project study area is within the PFA.

b) Future Land Use

As noted in the Leonardtown Comprehensive Plan (April 2010), the town officials face the challenge of deciding how the large areas of undeveloped land within the municipal boundaries will be developed. The Goals and Policies set forth in the Plan follow Maryland’s Smart Growth principles and Maryland’s Priority Funding Areas (PFA) law, which directs state funding to designated PFAs, including existing communities like Leonardtown, to target efforts that encourage and support economic development and new growth. The Land Use Plan Goal in the

2010 Plan is to “Retain Leonardtown’s small town character and enhance the Town’s waterfront community identity.” To achieve the goal, the town has identified various objectives that address potential development activities, including the following specific to the MD 5 project corridor:

- Protect the historic elements and economic vitality of the Town, by linking the Town Center (Downtown) to surrounding areas with an efficient system of roads, pedestrian walkways, community open space, and public utilities.
- Enhance utilization of Town waterfront resources. This includes enhancing public access to Breton Bay and McIntosh Run, with improvements to support boating activity, waterfront boardwalks or trails, passive recreation activities, and linkages between these waterfront assets and the Town Center (downtown) and other town neighborhoods, in the form of walkways, bikeways, road system connections, and parking.
- Improve the cross-town and through-town transportation networks. As growth areas within and around Leonardtown begin to develop, plan for and reserve lands for the establishment of collector roads that connect new subdivisions to the downtown area and Breton Bay waterfront assets.
- Ensure that Leonardtown will continue to function as one of St. Mary’s County’s primary residential and economic development growth areas by planning for future land uses on adjacent unincorporated lands which will accommodate residential and business growth in appropriate locations.
- Ensure that future land use patterns are supported by transportation networks, utility systems, open space, and community facilities.



Legend

-  Study Area
-  Leonardtown Municipal Boundary
-  Maryland 5 - Leonardtown Project Area
-  centerlines

Existing Land Use

-  Agricultural
-  Commercial
-  Tax Exempt
-  Industrial
-  Marsh Land
-  Residential
-  Unknown

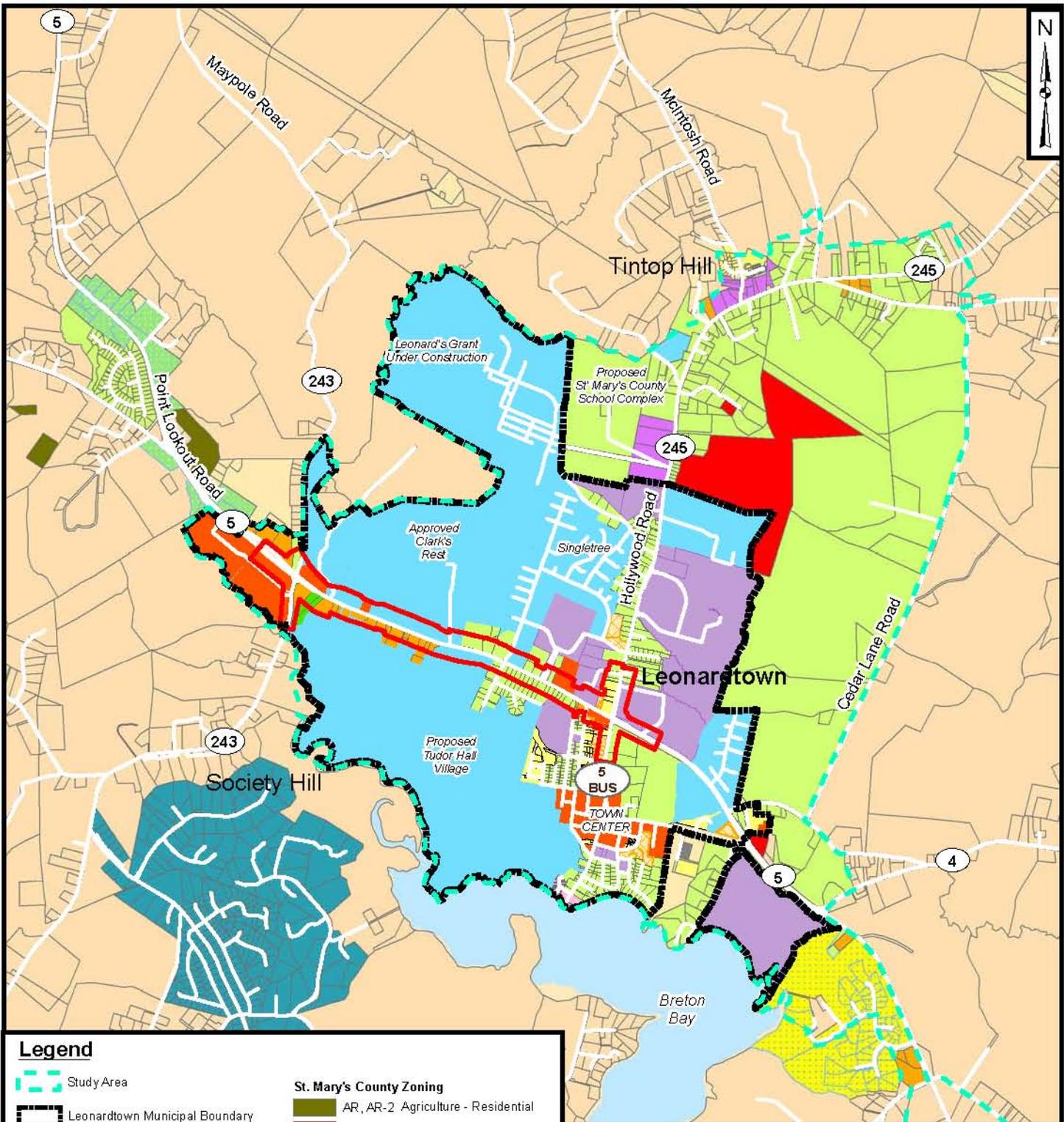
**MARYLAND ROUTE 5
MD 243 TO MD 245 - LEONARDTOWN
ST. MARY'S COUNTY
EXISTING LAND USE**

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION 

JUNE 2011

SCALE 1" = 3000'

Figure III-3



Legend

- | | |
|--|--|
| Study Area | St. Mary's County Zoning |
| Leonardtown Municipal Boundary | AR, AR-2 Agriculture - Residential |
| Maryland 5 - Leonardtown Project Area | C, C-G Commercial |
| Leonardtown Zoning | CM Commercial Marine |
| C-B Commercial - Business | CMX Corridor Mixed Use |
| C-H Commercial - Highway | I Industrial |
| C-M Commercial - Marine | PUD-M Planned Unit Development - Mixed Use |
| C-O Commercial - Office | R-1 Residential |
| I-O Institutional - Office | RCL Rural Commercial Limited |
| PUD-M Planned Unit Development - Mixed Use | RH Residential High Density |
| R-MF Residential - Multiple Family | RL Residential Low Density |
| R-SF Residential - Single Family | RMX Residential Mixed Use |
| R/P Recreational Park | RNC Residential Neighborhood Conservation |
| | RPD Rural Preservation District |

**MARYLAND ROUTE 5
MD 243 TO MD 245 - LEONARDTOWN
FUTURE LAND USE**

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

JUNE 2011

SCALE 1" = 3000'

Figure III-4

c) Land Use Effects

The proposed improvements to the MD 5 from MD 243 to MD 245 are consistent with the St. Mary's County Comprehensive Master Plan (2010). As previously described, potential business growth in the area and anticipated increase in traffic congestion is incorporated into the planning process. All proposed improvements are consistent with local land use plans.

4. Livability Principles and Sustainability

As part of the 2009 HUD/DOT/EPA agreement and reinforced in its 2010-2011 Every Day Counts initiative, FHWA has established six principles of livability. State Departments of Transportation are encouraged to be mindful of and apply the following principles during project planning and conceptual design.

- **Provide more transportation choices** to decrease household transportation costs, reduce our dependence on oil, improve air quality, and promote public health.
- **Expand location and energy-efficient housing choices** for people of all ages, incomes, races, and ethnicities to increase mobility and lower the combined cost of housing and transportation.
- **Improve economic competitiveness of neighborhoods** by giving people reliable access to employment centers, educational opportunities, services and other basic needs.
- **Target federal funding toward existing communities** through transit-oriented and land recycling to revitalize communities, reduce public works costs, and safeguard rural landscapes.
- **Align federal policies and funding** to remove barriers to collaboration, leverage funding and increase the effectiveness of programs to plan for future growth.
- **Enhance the unique characteristics of all communities** by investing in healthy, safe, and walkable neighborhoods, whether rural, urban, or suburban.

In early 2009, an intermodal working group was formed to start shaping the U.S. Department of Transportation's (USDOT) vision of Livability. Initial steps included the identification of all existing programs and authorities within the USDOT that already supported Livability and drafting possible changes to these programs that would allow the USDOT to make Livability a priority and make real improvements in the lives of American citizens.

In June 2009, the U.S. Department of Housing and Urban Development, USDOT, and the EPA united to form the Partnership for Sustainable Communities, an unprecedented agreement to coordinate federal housing, transportation, and environmental investments, protect public health and the environment, promote equitable development, and help address the challenges of climate change. The three agencies are working together to coordinate federal policies, programs, and resources to help urban, suburban, and rural areas and regions build more sustainable communities and make those communities the leading style of development in the United States.

The agencies are identifying opportunities to build more sustainable communities and to remove policy or other barriers that have kept Americans from doing so.

B. Cultural Resources

Identification and evaluation of historic architectural and archeological resources was conducted in accordance with federal and state laws, which protect cultural resources. Federal and state mandates for cultural resources protection include: the U.S.DOT Act of 1966, as amended in 1968; the NEPA of 1969; the National Historic Preservation Act of 1966, as amended; 36 CFR Part 800 Protection of Historic Properties (Final Rule December 12, 2000); Executive Order 11593; the MHT Act of 1990 (Article 83B, Sections 5-619 of the Annotated Code of Maryland); and Article 83B, Sections 5-617 and 5-618 of the Annotated Code of Maryland.

Architectural investigations completed by SHA determined that potentially significant architectural and archeological resources were both researched as part of the historic investigation instigated by the proposed improvements to MD 5. The following historic properties have been identified by SHA with the concurrence of MHT within the Area of Potential Effect (APE) of the project: Old SHA Garages (MIHP No. SM-883); Gough Farm (MIHP No. SM-331); Buena Vista (listed in the National Register of Historic Places on August 19, 1998 – MIHP No. SM-52); Drury-Saunders House (MIHP No. SM-540); and St. Mary's Academy (MIHP No. SM-422). All of the alternatives, except for the No-Build alternative would require right-of-way takings from some or all of the five historic properties in order to widen MD 5.

Section 4(f) resources under the U.S. Department of Transportation Act of 1988 (49 USC 3030(c)). Section 4(f) permits the use of land from a significant publically-owned public park, recreation area, wildlife or waterfowl refuge, or land of a historic site of national, state, or local significance (as determined by federal, state, or local officials having jurisdiction over the resource), only if there is no feasible or prudent alternative to the use of such land and if the action includes all possible planning to minimize harm to the protected property resulting from such use. A Section 4(f) "use" occurs when a property from a Section 4(f) resource is

permanently acquired and incorporated into a transportation project or when there is occupancy of land that is adverse in terms of the statute's preservationist purposes of maintaining the integrity of the resource, or when there is a constructive use of land. In some cases, the project proponent(s) and the reasonable official(s) with jurisdiction over the resource may agree that a particular use of Section 4(f) land would have no adverse affect on the protected resources, resulting in a *de minimis* impact finding.

The FHWA "Guidance for Determining *De Minimis* Impacts to Section 4(f) Resources" indicates that the following criteria must be met in order to satisfy the requirements of a *de minimis* impact finding.

1. The transportation use of the Section 4(f) resource, together with any impact avoidance, minimization, and mitigation or enhancement measures incorporated into the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f).
2. The official(s) with jurisdiction over the property are informed of FHWA's intent to make the *de minimis* impact finding based on their written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f).
3. The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource.

As previously mentioned, FHWA has established three main criteria to determine whether a project will have a *de minimis* impact on Section 4(f) resources. Upon selection of the preferred alternative, the SHA plans to seek FHWA's concurrence on a *de minimis* finding for the proposed impacts to the Old SHA Garages, Gough Farm; Buena Vista; Drury-Saunders House (except for Alternative 4 Option 3); and St. Mary's Academy. The SHA has determined that the proposed impacts meet the *de minimis* criteria for the following reasons.

1. The proposed improvements would impact only a small portion of the property which would not adversely affect the activities, features, and attributes that qualify the properties for protection under Section 4(f).
2. SHA has determined that the Section 4(f) use of the Port of Leonardtown would not adversely affect the activities, features, or attributes that qualify the resource for protection under Section 4(f) as a public park.
3. In the February 29, 2012 letter to the Town of Leonardtown, SHA requested concurrence that the proposed improvements to the MD 5 at the Port of Leonardtown not require evaluation under Section 4(f). The Town of Leonardtown concurred on March 8, 2012.
4. The public will be offered the opportunity to review and comment on SHA's intention to pursue a *deminimis* impact finding at the Public Hearing in the Spring of 2012.
5. Based on coordination with the Town of Leonardtown and Maryland Historical Trust and in consideration of comments from the public, the FHWA will make a *deminimis* determination which will be reported in the final environmental document prepared for this project.

Refer to **Section IV – Section 4(f)** for the completed Draft Section 4(f) Evaluation that was completed for the impacts to historic properties in the project area along MD 5 in Leonardtown.

Alternatives 3 and 4 Option 3, Adding Intersection Improvements, has an adverse impact to the Drury –Saunders House (SM-540); and all other alternatives and options have no adverse impact to historic standing structures, however the overall project has an adverse impact to historic standing structures due to the determination regarding Option 3 under both Alternatives 3 and 4. Should either of these alternatives be selected, specific mitigation measures will be determined in consultation with the MHT and with consideration of the views of any other relevant consulting parties participating in the Section 106 process. Therefore, specific mitigation is not identified in the Draft Section 4(f) Evaluation, **Section IV**, but it will be presented in the Final Section 4(f) Evaluation.

Phase I and Phase II investigations were conducted however portions of the resources lack sufficient integrity and information potential to be considered eligible for NRHP listing or did not meet any of the NHRP criteria of significance and is not eligible for listing. No archeological resources eligible for NRHP listing will be impacted by the MD 5 project. No further archeological investigations are warranted.

The MHT concurred on April 18, 2012 that the undertaking would be an adverse impact to historic standing structures.

The MHT concurred on April 18, 2012 that the undertaking would not impact archeological resources.

C. Natural Environment

The study area was investigated to identify presence of natural environmental resources. The study area is located within a mixed residential, commercial, and agricultural land use area.

1. Green Infrastructure

The GreenPrint Program (2001) was established by the Maryland General Assembly in an effort to “preserve the most ecologically valuable natural lands in Maryland” (Maryland’s Green Infrastructure Assessment, 2003). These areas have been identified in DNR’s Green Infrastructure data set, which was created using satellite imagery, road and stream locations and biological data. Identified areas include unfragmented natural areas, called “hubs”, which include large blocks of contiguous interior forest and large wetland complexes, linear stretches of land, called “corridors”, such as stream valleys and ridge tops that allow animals and seeds to move between “hubs” and areas of disconnect between the “hubs” and “corridors”, or “gaps.” SHA, in coordination with County planners and the regulatory agencies, would continue to use green infrastructure data in the planning and design phases to locate areas of land that could be targeted for protection or restoration to help ensure habitat for Maryland’s plants and wildlife, as well as to promote a healthier environment including improved outdoor recreation, clean drinking water, and erosion prevention. At the time Maryland’s Green Infrastructure Assessment (2003) was

published, it was determined that 74 percent of Maryland's Green Infrastructure is unprotected; and 13 percent of hubs, and less than one percent of corridors were in areas managed primarily for natural values.

The hub areas near the MD 5 study area contain large blocks of contiguous interior forest; important animal and plant habitats including rare, threatened, and endangered species locations; and a relatively pristine stream that supports freshwater mussels. The forested hub areas are primarily located in the Lower McIntosh Run watershed and the marsh hub areas are primarily in the Breton Bay Direct Drainage area at the downstream end of McIntosh Run.

The maximum impacts associated with the MD 5 improvements are estimated to be 3 acres to forest hub area. The MD 5 project will be required to comply with the Maryland Reforestation Law. This will require the replacement of forest cleared for the project's construction, which is generally accomplished on an acre-for-acre, one to one ratio on public lands. The project's forest mitigation plan can be consider reforesting areas contiguous to the existing hub, possibly in the vicinity of the new Port of Leonardtown Park.

Since the proposed improvements are for an existing facility on existing alignment in a town, there would be minimal fragmentation or destruction of areas identified as Green Infrastructure. The nature of the improvements would only impact the outer edges of the existing Green Infrastructure areas, which are currently impacted by the existing roadway. Given that the affected Green Infrastructure areas exist adjacent to the existing MD 5 roadway, the proposed improvements are not anticipated to induce additional impacts to these areas.

2. Geology, Topography and Soils

Topography within the study area influences the evaluation of the alternatives as it relates to stability of slopes, ease of excavation, and the cut and fill requirements associated with the roadway widening.

Fifteen series of soil and 22 soil mapping units are mapped throughout the study corridor according to the United State Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web site mapping. Dominant soil associations within the project

area include Bibb, Croom, Elkton, Othello, Rumford, and Sassafras associations. Six soil mapping units classified as Prime Farmland Soils and five soil mapping units classified as Soils of Statewide Importance occur within the project study corridor. Approximately 11.8 acres of Prime Farmland Soils and 35.1 acres of Soils of Statewide have been identified throughout the study corridor.

A Farmland Conversion Impact Rating (FCIR) Form (FCIR; Form AD-1006) has been completed for the project. The combined score of the relative value and the site assessment criteria must be less than 160 points for farmland to be given a minimal level of consideration for protection. The Site Assessment score combined for a total less than 160. No further measures to avoid or minimize impacts to Farmland Protection Policy Act (FPPA) farmland soils are necessary based on the assessment results.

The proposed improvements to the existing highway corridor are limited to widening of the existing roadway. Limited cut/fill requirements anticipated as a result of the proposed roadway improvements. The project study corridor is located in the Atlantic Coastal Plain Province and includes the Waldorf Upland Plain District along with the Potomac Estuary and Lowlands District. Upland Deposits (Western Shore) exist within the project study corridor which consist of primarily gravel and sand. No anticipated impacts to geology will result from the improvement activities. Minor grading and fill localized to the roadway widening and structure modifications will be necessary. Major topographic impacts are not anticipated as a result of this project.

Indirect impacts resulting from the earthmoving requirements of the project may include small changes to drainage patterns inside and immediately outside the right-of-way (ROW) associated with redirected surface runoff. Stormwater management facilities will be implemented and upgraded as necessary to collect and discharge surface water runoff associated with MD 5. Best Management Practices (BMPs) will be used as described in the 2000 Maryland Stormwater Management Design Manual and the Maryland Stormwater Management Guidelines for State and Federal Projects (April 15, 2010) to reduce the impacts from erosion and sedimentation to

wetlands and waterways. The exact changes are not able to be assessed at this stage of the design and are expected to be minimal.

3. Aquatic Resources

Impacts to waters of the U.S., including wetlands, from each of the build alternatives are anticipated. Each of the Build alternatives would increase the impervious surfaces in the area, resulting in increased erosion and pollution discharge. A stormwater management plan would be developed in accordance with Maryland Department of the Environment criteria to minimize adverse effects to aquatic resources. Adverse impacts to aquatic resources during construction would be minimized through strict adherence to SHA erosion and sediment control procedures.

McIntosh Run, Town Run and their tributaries are located within the study area. McIntosh Run and Town Run are classified by the Maryland Department of the Environment (MDE) as Use I streams for the protection of water contact recreation and nontidal warm water aquatic life. To protect these uses, MDE may restrict in-stream work from March 1st through June 15th inclusive, during any year. All of the perennial and intermittent stream impacts associated with this project would occur within the McIntosh Run watershed, ranging from 692 to 1,707 linear feet. Alternative 2 would have the least amount of perennial and intermittent stream impacts throughout the study corridor with 692 linear feet. Alternative 4 – Options 3 and 4 would result in the greatest amount of stream impacts with up to 1,707 linear feet of perennial and intermittent stream impact. Stormwater management and sediment and erosion control plans will be developed to minimize impacts to water quality and will be implemented in accordance with the MDE regulations.

Jurisdictional wetland habitats and watercourses within the MD 5 project study corridor were delineated from May 5 to May 7, 2008. A total of 19 jurisdictional wetland habitats and 10 watercourse channels were identified within the study corridor. Impacts to wetlands and waters of the U.S. were assessed based on the proposed final ROW for each alternative to provide an estimation of maximum disturbance during the planning phase. Currently, wetland impacts range from 0.45 acre for Alternative 2 to 1.17 acres for Alternative 4 Option 3. Forested wetland (PFO) impacts range from 0.34 for Alternative 2 to 0.83 acre for Alternative 4 Option 3.

Maryland Compensatory Mitigation Guidance and Maryland Department of the Environment (MDE) guidelines will be utilized for any wetland not considered a Nontidal Wetland of Special State Concern (NWSSC).

Several wetlands were designated/mapped NWSSC within the Upper McIntosh Run watershed by MDE and the Maryland Department of Natural Resources during the course of this study and are known to support the state rare deciduous holly (*Ilex decidua*). Impacts to NWSSC range from 0.07 acre for Alternative 2 to 0.42 acre for Alternative 4.

4. Floodplains

The project study corridor lies within the McIntosh Run and Town Run drainage areas. All improvements would include upgrades to the existing crossing or roadways in proximity to McIntosh Run. There are no active improvements to any crossing or culverts associated with Town Run. FEMA-designated 100-year floodplains occurring within the study area are associated with the McIntosh Run drainage basin. This floodplain lies on both sides of MD Route 5 and ranges from approximately 1,400 feet wide at the MD 5 bridge, its narrowest point, to approximately 2,500 feet at its widest within the study corridor. Impacts to the designated 100-year floodplain range from 3.68 to 5.55 acres for Alternatives 2 and 4 – Option 3, respectively.

5. Vegetation and Wildlife

Terrestrial habitat within the study area influences the evaluation of alternatives as it relates to forest interior dwelling species (FIDS), large and significant trees, and other vegetation valuable for habitat purposes. Existing forested habitat identified within the project study corridor is largely mixed broadleaf deciduous and evergreen forest. Impacts to existing forest would be limited to the edge along existing MD 5 and range from 3.14 to 7.52 acres for Alternative 2 and Alternative 4 – Option 3, respectively (Table III-4). Minimal fragmentation or destruction of large forested tracts, green infrastructure, or FIDS and terrestrial wildlife is expected as a result of this project.

6. Rare, Threatened and Endangered Species

Both plants and animals with a state ranking (S1, S2, and S3) or status of threatened or endangered have been identified in proximity to the project study corridor. Correspondence from the United States Fish and Wildlife Service (USFWS) dated March 8, 2008, identified select habitats within McIntosh Run documented to support significant populations of the state and federally endangered dwarf wedge mussel (*Alasmidonta heterodon*). The response letter states that “Except for occasional transient individuals, no other federally proposed or listed endangered or threatened species are known to occur in the area.” According to coordination with MD DNR, these known habitats occur at locations well upstream of the project study corridor outside of potential influence from the proposed activities. Follow-up coordination with USFWS and MD DNR was conducted in April 2008, and it was determined that there would be no need for SHA to conduct a mussel survey for the project.

Coordination with the Maryland Department of Natural Resources and the United States Fish and Wildlife Service indicated that the McIntosh Run watershed supports habitat for the state-listed Threatened Red Turtlehead (*Chelone obliqua*) and populations of the state Rare Deciduous Holly (*Ilex decidua*.)” Field investigations for both plant species were conducted in May 2008 for *Ilex decidua* and again in August 2008 for *Chelone obliqua*. Suitable habitat was identified for both species. There were numerous individuals of *Ilex decidua* identified throughout the study corridor. No specimens of *Chelone obliqua* were identified within the study corridor during the field investigations.

Table III-3: Community Impacts by Alternative

| FEATURE | ALTERNATIVE 2 | ALTERNATIVE 3 | ALTERNATIVE 4 | ALTERNATIVE 4 OPTION 2 | ALTERNATIVE 4 OPTION 3 | ALTERNATIVE 4 OPTION 4 |
|--|------------------|--|--|--|--|--|
| NUMBER OF DISPLACEMENTS | | | | | | |
| Residential Properties | 2 | 2 | 2 | 2 | 3 | 2 |
| Commercial Properties | 4 | 5 | 7 | 10 | 9 | 7 |
| Businesses | 4 | 4 | 5 | 10 | 6 + 2 apartment structures | 5 |
| Other | --- | Relocate 2 ATMs |
| | --- | Reconfigure Ledo Pizza entrance |
| | --- | Relocate McIntosh Lift Station (sewer) |
| Total | 6 | 7 | 9 | 12 | 12 | 9 |
| RIGHT-OF-WAY REQUIRED (ACRES) | | | | | | |
| Residential | 4.4 | 9.7 | 9.9 | 8.3 | 10.5 | 9.7 |
| Commercial* | 9.2 | 14.7 | 15.2 | 16.5 | 17.2 | 14.8 |
| Agricultural | 1.3 | 2.0 | 2.1 | 1.5 | 2.1 | 2.1 |
| Total | 14.9 | 26.4 | 27.2 | 26.3 | 29.8 | 26.6 |
| NUMBER OF PROPERTIES IMPACTED | | | | | | |
| Residential | 23 | 34 | 34 | 34 | 35 | 34 |
| Commercial* | 37 | 48 | 48 | 48 | 52 | 47 |
| Agricultural | 2 | 3 | 3 | 3 | 3 | 3 |
| Total | 62 | 85 | 85 | 85 | 90 | 84 |
| ESTIMATED ANNUAL TAX REVENUE LOSSES (% OF TOTAL ANNUAL REVENUE) | | | | | | |
| Leonardtown | \$4,725 (1.1%) | \$11,886 (2.7%) | \$12,613 (2.8%) | \$14,778 (3.3%) | \$14,177 (3.2%) | \$12,521 (2.8%) |
| St. Mary's County | \$32,212 (<0.1%) | \$81,033 (<0.1%) | \$85,994 (<0.1%) | \$100,754 (<0.1%) | \$96,654 (<0.1%) | \$85,365 (<0.1%) |
| Maryland | \$4,210 (<0.1%) | \$10,590 (<0.1%) | \$11,238 (<0.1%) | \$13,167 (<0.1%) | \$12,632 (<0.1%) | \$11,156 (<0.1%) |
| TOTAL | \$41,147 | \$103,509 | \$109,845 | \$128,699 | \$123,463 | \$109,042 |
| FUTURE LAND USE IMPACTS IN ACRES (TYPES ARE A COMPOSITE OF LAND USE CATEGORIES) | | | | | | |
| Commercial (C-B, C-H, and C-O) | 5.8 | 8.5 | 8.7 | 9.3 | 9.8 | 8.2 |
| I-O Institutional Office | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 1.1 |
| PUD-M Planned Dev. Mixed Use | 3.4 | 9.5 | 9.9 | 10.2 | 9.9 | 9.9 |
| Residential (R-MF and R-SF) | 4.3 | 7.0 | 7.2 | 5.3 | 8.4 | 7.2 |
| R/P Recreation & Park | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| TOTAL | 14.9 | 26.4 | 27.2 | 26.3 | 29.7 | 26.6 |

| FEATURE | ALTERNATIVE 2 | ALTERNATIVE 3 | ALTERNATIVE 4 | ALTERNATIVE 4 OPTION 2 | ALTERNATIVE 4 OPTION 3 | ALTERNATIVE 4 OPTION 4 |
|---|---|---|---|---|---|--|
| ACCESS CHANGES | | | | | | |
| Parcels identified for future development (Clarks Rest Tudor Hall Developments) | --- | New MD 5 signalized intersection proposed |
| MD 5 and Abell/Moakley Streets Intersection | --- | Signal proposed for the existing intersection |
| St. Mary's Hospital Entrance | Eliminate existing left turn onto southbound MD 5 | Eliminate existing left turn onto southbound MD 5 | Eliminate existing left turn onto southbound MD 5 | Eliminate existing left turn onto southbound MD 5 | Eliminate existing left turn onto southbound MD 5 | Eliminate existing left turn onto southbound MD 5 |
| MD 5 and Lawrence Avenue Intersection | Eliminate existing left turns from northbound MD 5 and from Lawrence Avenue | Eliminate existing left turns from northbound MD 5 and from Lawrence Avenue | Eliminate existing left turns from northbound MD 5 and from Lawrence Avenue | Eliminate existing left turns from northbound MD 5 and from Lawrence Avenue | Eliminate existing left turns from northbound MD 5 and from Lawrence Avenue | Eliminate existing left turns from northbound MD 5 and from Lawrence Avenue |
| MD 243 and Merchants Lane Intersection | --- | --- | --- | --- | Signal proposed for the existing intersection | Eliminate existing right turn from MD 243 and existing left turn from Merchant's Lane (double left-turn bays into Leonardtown Centre added farther north from MD 5 at existing right-in/right-out MD 5 entrance) |
| Properties adjacent to MD 5 | --- | New continuous turn lane in median to facilitate turns | Restricted to right-in and right-out – Jughandle included for U-turns | Restricted to right-in and right-out – Jughandle included for U-turns | Restricted to right-in and right-out – Jughandle included for U-turns | Restricted to right-in and right-out – Jughandle included for U-turns |

* Exempt commercial properties are included within the total commercial required right-of-way and commercial properties impacted.

| Table III-4: Natural Environment Summary of Impacts Affected FEATURES | ALTERNATIVE 2 | ALTERNATIVE 3 | ALTERNATIVE 4 | ALTERNATIVE 4 | | |
|--|--------------------------|--------------------------|--------------------------|----------------------|-----------------|-----------------|
| | | | | OPTION 2 | OPTION 3 | OPTION 4 |
| 100-Year Floodplains (acres) | 3.68 | 4.73 | 4.72 | 4.74 | 5.55 | 4.54 |
| Streams (linear feet) | 692 | 1,635 | 1,669 | 922 | 1,707 | 1,686 |
| Wetlands (acres) | 0.45 | 0.78 | 0.81 | 0.70 | 1.17 | 0.86 |
| NWSSC (acres) | 0.07 | 0.39 | 0.42 | 0.40 | 0.42 | 0.41 |
| NWSSC 100-foot Buffer (acres) | 1.06 | 6.63 | 6.50 | 6.18 | 6.51 | 6.16 |
| Potential FIDS Habitat (acres) ¹ | 0.67 | 0.72 | 0.73 | 0.77 | 0.92 | 0.75 |
| Forestland Mixed Upland (acres) | 3.14 | 6.96 | 7.35 | 7.17 | 7.52 | 7.10 |
| Forested Wetland ² (acres) | 0.34 | 0.47 | 0.48 | 0.46 | 0.83 | 0.52 |
| Prime Farmland Soils (acres) | 4.08 | 6.22 | 6.31 | 6.30 | 6.58 | 6.40 |
| Soils of Statewide Importance (acres) | 6.01 | 10.37 | 10.59 | 9.63 | 10.66 | 10.21 |
| Green Infrastructure (acres) | 0.88 | 2.67 | 2.75 | 2.69 | 2.93 | 2.67 |

1 The nature of the widening and improvement activities would impact the outer edges of the existing FIDS habitat areas, most of which are currently impacted by the existing roadway and infrastructure. Core interior areas would remain intact and unfragmented and unaffected by any of the project alternatives.

2 Forested Wetland totals are included in the “Wetlands” total above.

D. Air Quality

To determine if this transportation improvement project meets the requirements for the Federal Clean Air Act (CAA), an air quality analysis was conducted and a technical report prepared in accordance with EPA, FHWA and SHA guidelines. The Transportation Conformity section of the CAA requires that long range transportation plans and shorter-range Transportation Improvement Programs (TIP) conform to the approved State Implementation Plan (SIP), the plan for managing regional and local air quality conditions. This linkage ensures that Federal approval or funding of transportation plans, programs, and projects are compatible and consistent with the goals and objectives of the CAA. The project is located in St. Mary’s County which is identified within a region of Maryland designated as being in attainment for all of the S/NAAQS.

Therefore, US EPA and FHWA transportation conformity requirements are not applicable (regional modeling to demonstrate conformity with SIP as well as PM_{2.5} hot-spot analyses requirements).

CO Analysis

The two signalized intersections with the highest traffic volumes were analyzed within the study area: the intersections of MD 5/MD 243 and MD 5/MD 245. Sidewalks are provided adjacent to the signalized intersections and pedestrian traffic is present. Crosswalks and countdown signals are provided at adjacent intersections. Air quality receptors are generally assessed where the general public has access. Approximately 73 air quality receptors locations were modeled adjacent to the two intersections, representing sidewalk areas. Receptors were modeled at approximately 10m intervals along each leg of the intersection where vehicles queue (approach links). A receptor height of 1.8m was used to represent the average height of inhalation for a human.

The air quality analysis indicates that the carbon monoxide (CO) emissions resulting from the implementation of the No-Build or any build alternative would not result in a violation of the NAAQS's for the 1-hour CO concentration of 35 ppm or for the 8-hour CO concentration of 9 ppm at any air quality receptor locations in either analysis year. The results of the design year projections for both intersections indicate none of the alternatives would cause the CO concentrations to exceed the NAAQS of 35 ppm (1-hour) or 9 ppm (8-hour) (Table III-5).

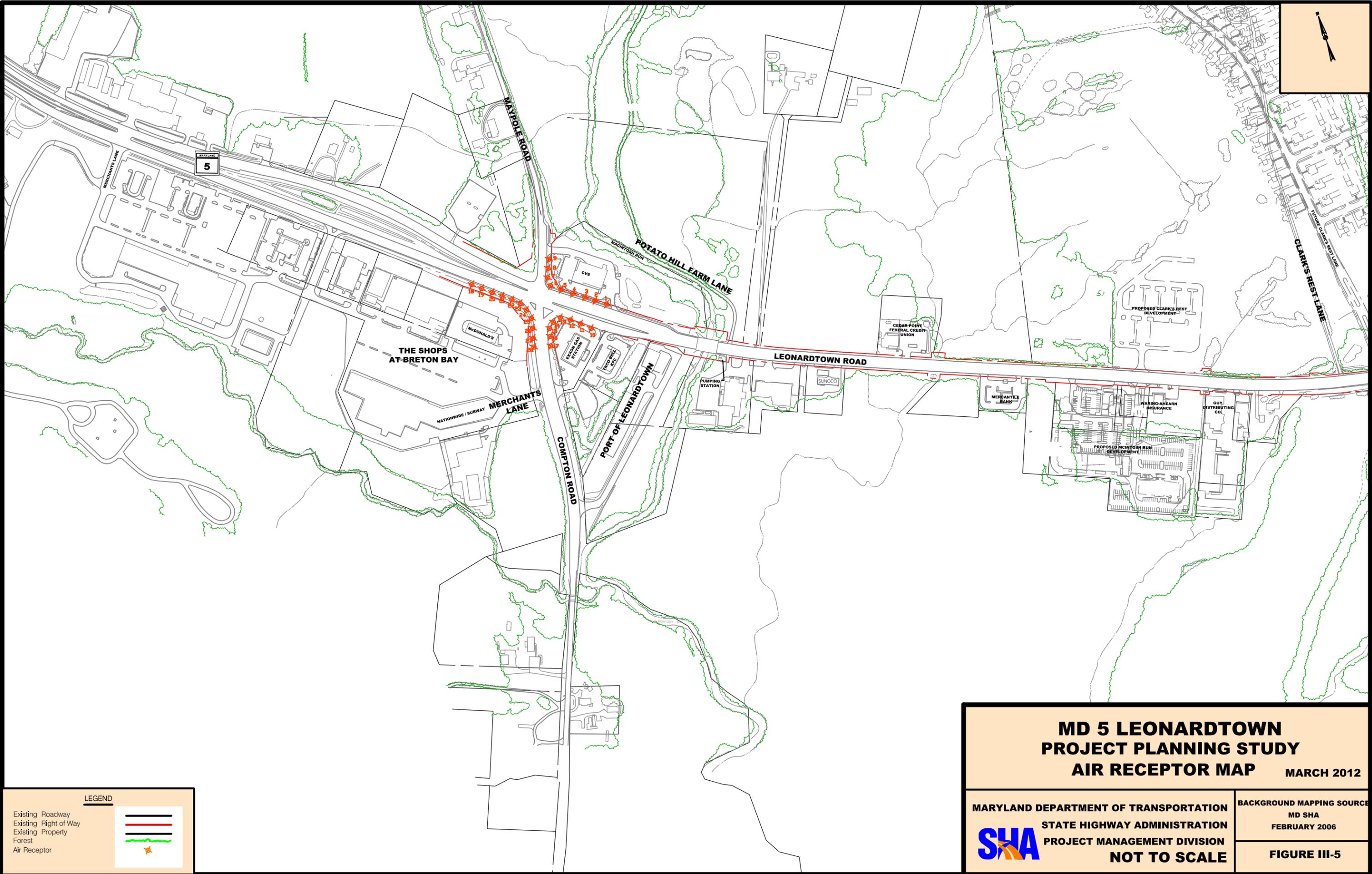
MSAT Analysis

FHWA's *Interim Guidance on Air Toxic Analysis in NEPA Documents* requires analysis of Mobile Source Air Toxics (MSATs) under specific conditions. The US EPA has designated six prioritized MSATs (Benzene, Acrolein, Formaldehyde, 1,3-Butadiene, Acetaldehyde, and Diesel Exhaust) which are probable carcinogens or can cause chronic respiratory effects. Per SHA traffic analysis, the Build traffic volumes (ADT) and truck percentages are equal to the No-Build traffic volumes (ADT) and truck percentages. Also, traffic volumes are less than 140,000 Annual Average Daily Traffic (AADT). Therefore, this would be categorized as a "*minor widening project(s) and new interchange(s), such as those that replace(s) a signalized intersection on a*

surface street” ... “that serves to improve operations of highway...without adding substantial new capacity or creating a facility that is likely to meaningfully increase emissions.” The MD 5 project would be considered a **Project with Low Potential MSAT’s effects**. Because SHA traffic analysis demonstrates that the Build traffic volumes (ADT) and truck percentages are equal to the No-Build traffic volumes (ADT) and truck percentages, the MD 5 project will not result in any meaningful changes in traffic volumes, vehicle mix, or any other factor that would cause an increase in emissions impacts. As such, FHWA has determined that this project will generate minimal air quality impacts for the CAA criteria pollutants and has not been linked to any special MSATs concerns. Section 176(c) of the CAA and the federal conformity rule require that transportation plans and programs conform to the intent of the State Implementation Plan (SIP) through a regional analysis in PM_{2.5} non-attainment areas. The MD 5 project is located in St. Mary’s County and is not designated as non-attainment for PM_{2.5}.

Conclusions

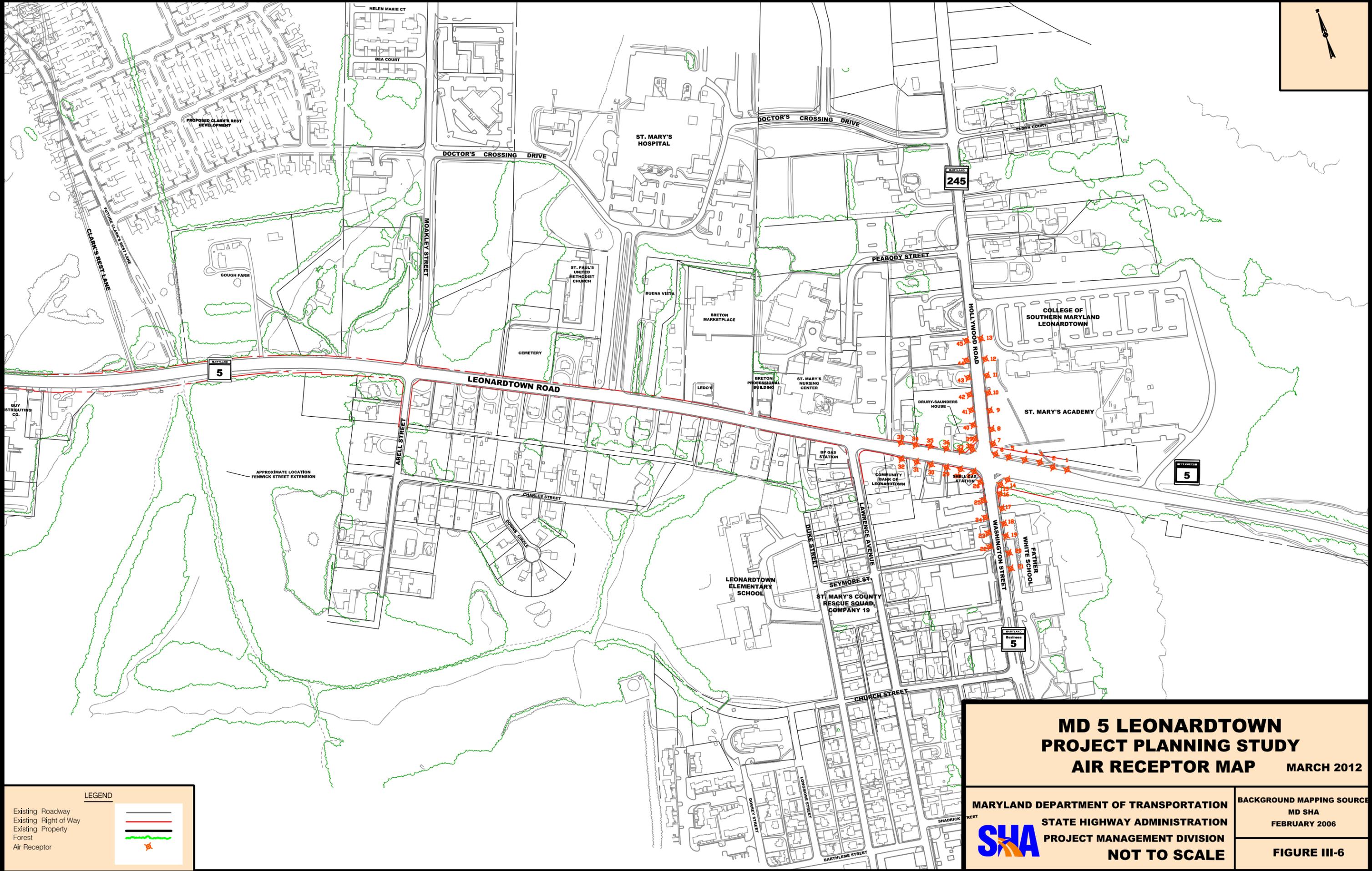
From the results of the air quality analyses, it has been determined that construction and use of any of the proposed alternatives will not exceed the NAAQS for CO, and an improvement in the air quality is predicted at all of the modeled intersections for the Build alternatives. The MD 5 project will not result in any adverse impact to air quality.



LEGEND

- Existing Roadway
- Existing Right of Way
- Existing Property
- Forest
- Air Receptor

| | |
|---|--|
| <h2 style="margin: 0;">MD 5 LEONARDTOWN PROJECT PLANNING STUDY AIR RECEPTOR MAP</h2> <p style="text-align: right; margin: 0;">MARCH 2012</p> | |
| <p style="margin: 0;">MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION PROJECT MANAGEMENT DIVISION NOT TO SCALE</p> | <p style="margin: 0; font-size: small;">BACKGROUND MAPPING SOURCE MD SHA FEBRUARY 2006</p> <p style="margin: 0; font-weight: bold; font-size: small;">FIGURE III-5</p> |



LEGEND

- Existing Roadway
- Existing Right of Way
- Existing Property
- Forest
- Air Receptor

**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
AIR RECEPTOR MAP**

MARCH 2012

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
PROJECT MANAGEMENT DIVISION

NOT TO SCALE

BACKGROUND MAPPING SOURCE
MD SHA
FEBRUARY 2006

FIGURE III-6

Table III-5 MD 5/MD 243 Intersection Carbon Monoxide Concentrations

| Receptor ID | 2007 Existing Conditions | | 2030 PM PEAK HOUR CO CONCENTRATIONS (ppm) | | | | | | | | | | | | NAAQS | | Violation |
|-------------------|--------------------------|------------|---|------------|-------------------------|------------|---------------------------|------------|--|------------|------------------------|------------|------------------------|------------|--------|--------|-----------|
| | | | Alternative 1 (No Build) | | Alternative 2 (TSM/TSD) | | Alternative 3 (Five lane) | | Alternative 4 / Alternative 4 Option 2 | | Alternative 4 Option 3 | | Alternative 4 Option 4 | | | | |
| | 1 Hour | 8 Hour | 1 Hour | 8 Hour | 1 Hour | 8 Hour | 1 Hour | 8 Hour | 1 Hour | 8 Hour | 1 Hour | 8 Hour | 1 Hour | 8 Hour | 1 Hour | 8 Hour | |
| 1 | 4.0 | 2.8 | 3.9 | 2.7 | 4.0 | 2.8 | 4.0 | 2.8 | 4.0 | 2.8 | 3.9 | 2.7 | 4.1 | 2.9 | 35 | 9 | No |
| 2 | 4.0 | 2.8 | 4.0 | 2.8 | 3.8 | 2.7 | 3.8 | 2.7 | 3.8 | 2.7 | 3.9 | 2.7 | 3.9 | 2.7 | 35 | 9 | No |
| 3 | 3.9 | 2.7 | 3.8 | 2.7 | 4.0 | 2.8 | 3.8 | 2.7 | 3.9 | 2.7 | 3.8 | 2.7 | 3.7 | 2.6 | 35 | 9 | No |
| 4 | 3.9 | 2.7 | 3.8 | 2.7 | 4.2 | 2.9 | 4.0 | 2.8 | 3.9 | 2.7 | 4.0 | 2.8 | 3.7 | 2.6 | 35 | 9 | No |
| 5 | 3.9 | 2.7 | 3.9 | 2.7 | 4.1 | 2.9 | 4.0 | 2.8 | 3.9 | 2.7 | 3.8 | 2.7 | 3.8 | 2.7 | 35 | 9 | No |
| 6 | 3.9 | 2.7 | 3.9 | 2.7 | 3.9 | 2.7 | 3.7 | 2.6 | 3.7 | 2.6 | 3.8 | 2.7 | 3.9 | 2.7 | 35 | 9 | No |
| 7 | 3.3 | 2.3 | 3.2 | 2.2 | 3.3 | 2.3 | 3.3 | 2.3 | 3.3 | 2.3 | 3.3 | 2.3 | 3.4 | 2.4 | 35 | 9 | No |
| 8 | 3.3 | 2.3 | 3.0 | 2.1 | 3.1 | 2.2 | 3.1 | 2.2 | 3.0 | 2.1 | 3.0 | 2.1 | 3.0 | 2.1 | 35 | 9 | No |
| 9 | 3.1 | 2.2 | 2.9 | 2.0 | 2.8 | 2.0 | 3.0 | 2.1 | 2.9 | 2.0 | 2.9 | 2.0 | 3.0 | 2.1 | 35 | 9 | No |
| 10 | 3.5 | 2.5 | 3.4 | 2.4 | 3.8 | 2.7 | 3.7 | 2.6 | 3.7 | 2.6 | 3.5 | 2.5 | 3.8 | 2.7 | 35 | 9 | No |
| 11 | 3.9 | 2.7 | 3.7 | 2.6 | 3.9 | 2.7 | 3.7 | 2.6 | 3.7 | 2.6 | 3.8 | 2.7 | 3.7 | 2.6 | 35 | 9 | No |
| 12 | 3.7 | 2.6 | 3.7 | 2.6 | 4.0 | 2.8 | 3.8 | 2.7 | 3.8 | 2.7 | 3.7 | 2.6 | 3.6 | 2.5 | 35 | 9 | No |
| 13 | 3.8 | 2.7 | 3.5 | 2.5 | 4.0 | 2.8 | 3.8 | 2.7 | 3.8 | 2.7 | 3.8 | 2.7 | 3.8 | 2.7 | 35 | 9 | No |
| 14 | 3.5 | 2.5 | 3.3 | 2.3 | 3.6 | 2.5 | 3.7 | 2.6 | 3.6 | 2.5 | 3.5 | 2.5 | 3.4 | 2.4 | 35 | 9 | No |
| 15 | 3.8 | 2.7 | 3.7 | 2.6 | 3.4 | 2.4 | 3.2 | 2.2 | 3.3 | 2.3 | 3.2 | 2.2 | 3.2 | 2.2 | 35 | 9 | No |
| 16 | 3.5 | 2.5 | 3.6 | 2.5 | 3.3 | 2.3 | 3.2 | 2.2 | 3.3 | 2.3 | 3.1 | 2.2 | 3.0 | 2.1 | 35 | 9 | No |
| 17 | 3.3 | 2.3 | 3.4 | 2.4 | 3.2 | 2.2 | 3.2 | 2.2 | 3.2 | 2.2 | 3.1 | 2.2 | 3.0 | 2.1 | 35 | 9 | No |
| 18 | 3.8 | 2.7 | 3.8 | 2.7 | 3.7 | 2.6 | 3.8 | 2.7 | 3.6 | 2.5 | 3.7 | 2.6 | 3.9 | 2.7 | 35 | 9 | No |
| 19 | 4.1 | 2.9 | 3.8 | 2.7 | 3.7 | 2.6 | 3.7 | 2.6 | 3.7 | 2.6 | 3.6 | 2.5 | 3.9 | 2.7 | 35 | 9 | No |
| 20 | 4.5 | 3.2 | 3.9 | 2.7 | 3.5 | 2.5 | 3.6 | 2.5 | 3.6 | 2.5 | 3.5 | 2.5 | 3.9 | 2.7 | 35 | 9 | No |
| 21 | 4.1 | 2.9 | 3.7 | 2.6 | 3.7 | 2.6 | 3.6 | 2.5 | 3.7 | 2.6 | 3.7 | 2.6 | 3.6 | 2.5 | 35 | 9 | No |
| 22 | 3.8 | 2.7 | 3.8 | 2.7 | 3.9 | 2.7 | 3.8 | 2.7 | 3.9 | 2.7 | 3.8 | 2.7 | 3.9 | 2.7 | 35 | 9 | No |
| 23 | 3.8 | 2.7 | 3.9 | 2.7 | 4.2 | 2.9 | 4.0 | 2.8 | 4.0 | 2.8 | 4.1 | 2.9 | 4.1 | 2.9 | 35 | 9 | No |
| 24 | 3.7 | 2.6 | 3.7 | 2.6 | 4.1 | 2.9 | 4.1 | 2.9 | 4.0 | 2.8 | 4.1 | 2.9 | 4.2 | 2.9 | 35 | 9 | No |
| 25 | 3.9 | 2.7 | 3.8 | 2.7 | 4.0 | 2.8 | 3.8 | 2.7 | 3.9 | 2.7 | 3.7 | 2.6 | 3.7 | 2.6 | 35 | 9 | No |
| 26 | 3.7 | 2.6 | 3.7 | 2.6 | 3.7 | 2.6 | 3.6 | 2.5 | 3.7 | 2.6 | 3.6 | 2.5 | 3.4 | 2.4 | 35 | 9 | No |
| 27 | 3.5 | 2.5 | 3.8 | 2.7 | 3.5 | 2.5 | 3.4 | 2.4 | 3.4 | 2.4 | 3.3 | 2.3 | 3.3 | 2.3 | 35 | 9 | No |
| 28 | 3.5 | 2.5 | 3.7 | 2.6 | 3.6 | 2.5 | 3.5 | 2.5 | 3.6 | 2.5 | 3.3 | 2.3 | 3.3 | 2.3 | 35 | 9 | No |
| Worst Case | 4.5 | 3.2 | 4.0 | 2.8 | 4.2 | 2.9 | 4.1 | 2.9 | 4.0 | 2.8 | 4.1 | 2.9 | 4.2 | 2.9 | | | |

Table III-6 MD 5/MD 245 Intersection Carbon Monoxide Concentrations

| Receptor ID | 2007 Existing Conditions | | 2030 PM PEAK HOUR CO CONCENTRATIONS (ppm) | | | | | | | | | | | | NAAQS | | Violation |
|-------------------|--------------------------|------------|---|------------|-------------------------|------------|---------------------------|------------|--|------------|------------------------|------------|------------------------|------------|--------|--------|-----------|
| | | | Alternative 1 (No Build) | | Alternative 2 (TSM/TSD) | | Alternative 3 (Five lane) | | Alternative 4 / Alternative 4 Option 2 | | Alternative 4 Option 3 | | Alternative 4 Option 4 | | | | |
| | 1 Hour | 8 Hour | 1 Hour | 8 Hour | 1 Hour | 8 Hour | 1 Hour | 8 Hour | 1 Hour | 8 Hour | 1 Hour | 8 Hour | 1 Hour | 8 Hour | 1 Hour | 8 Hour | |
| 1 | 3.7 | 2.6 | 4.1 | 2.9 | 3.5 | 2.5 | 3.6 | 2.5 | 3.6 | 2.5 | 3.4 | 2.4 | 3.6 | 2.5 | 35 | 9 | No |
| 2 | 4.0 | 2.8 | 4.2 | 2.9 | 3.6 | 2.5 | 3.6 | 2.5 | 3.7 | 2.6 | 3.5 | 2.5 | 3.7 | 2.6 | 35 | 9 | No |
| 3 | 4.3 | 3.0 | 4.0 | 2.8 | 3.6 | 2.5 | 3.6 | 2.5 | 3.6 | 2.5 | 3.5 | 2.5 | 3.6 | 2.5 | 35 | 9 | No |
| 4 | 4.4 | 3.1 | 3.8 | 2.7 | 3.5 | 2.5 | 3.5 | 2.5 | 3.5 | 2.5 | 3.4 | 2.4 | 3.5 | 2.5 | 35 | 9 | No |
| 5 | 4.5 | 3.2 | 3.8 | 2.7 | 3.7 | 2.6 | 3.6 | 2.5 | 3.7 | 2.6 | 3.3 | 2.3 | 3.7 | 2.6 | 35 | 9 | No |
| 6 | 4.8 | 3.4 | 4.1 | 2.9 | 3.8 | 2.7 | 3.7 | 2.6 | 3.8 | 2.7 | 3.8 | 2.7 | 3.8 | 2.7 | 35 | 9 | No |
| 7 | 3.9 | 2.7 | 3.4 | 2.4 | 3.5 | 2.5 | 3.5 | 2.5 | 3.3 | 2.3 | 3.4 | 2.4 | 3.3 | 2.3 | 35 | 9 | No |
| 8 | 4.3 | 3.0 | 3.5 | 2.5 | 3.5 | 2.5 | 3.5 | 2.5 | 3.4 | 2.4 | 3.4 | 2.4 | 3.4 | 2.4 | 35 | 9 | No |
| 9 | 3.9 | 2.7 | 3.4 | 2.4 | 3.5 | 2.5 | 3.4 | 2.4 | 3.3 | 2.3 | 3.4 | 2.4 | 3.3 | 2.3 | 35 | 9 | No |
| 10 | 4.0 | 2.8 | 3.5 | 2.5 | 3.4 | 2.4 | 3.4 | 2.4 | 3.2 | 2.2 | 3.1 | 2.2 | 3.2 | 2.2 | 35 | 9 | No |
| 11 | 3.9 | 2.7 | 3.1 | 2.2 | 3.3 | 2.3 | 3.4 | 2.4 | 3.3 | 2.3 | 3.0 | 2.1 | 3.3 | 2.3 | 35 | 9 | No |
| 12 | 3.8 | 2.7 | 3.2 | 2.2 | 3.2 | 2.2 | 3.2 | 2.2 | 3.1 | 2.2 | 2.9 | 2.0 | 3.1 | 2.2 | 35 | 9 | No |
| 13 | 3.7 | 2.6 | 3.4 | 2.4 | 3.2 | 2.2 | 3.0 | 2.1 | 3.1 | 2.2 | 2.7 | 1.9 | 3.1 | 2.2 | 35 | 9 | No |
| 14 | 4.4 | 3.1 | 3.5 | 2.5 | 3.4 | 2.4 | 3.6 | 2.5 | 3.5 | 2.5 | 3.3 | 2.3 | 3.5 | 2.5 | 35 | 9 | No |
| 15 | 4.6 | 3.2 | 3.9 | 2.7 | 3.4 | 2.4 | 3.4 | 2.4 | 3.3 | 2.3 | 3.3 | 2.3 | 3.3 | 2.3 | 35 | 9 | No |
| 16 | 4.5 | 3.2 | 3.8 | 2.7 | 3.5 | 2.5 | 3.6 | 2.5 | 3.5 | 2.5 | 3.6 | 2.5 | 3.5 | 2.5 | 35 | 9 | No |
| 17 | 4.0 | 2.8 | 3.8 | 2.7 | 3.7 | 2.6 | 3.6 | 2.5 | 3.4 | 2.4 | 3.9 | 2.7 | 3.4 | 2.4 | 35 | 9 | No |
| 18 | 4.0 | 2.8 | 3.7 | 2.6 | 3.6 | 2.5 | 3.6 | 2.5 | 3.5 | 2.5 | 4.0 | 2.8 | 3.5 | 2.5 | 35 | 9 | No |
| 19 | 3.9 | 2.7 | 3.7 | 2.6 | 3.6 | 2.5 | 3.6 | 2.5 | 3.6 | 2.5 | 3.9 | 2.7 | 3.6 | 2.5 | 35 | 9 | No |
| 20 | 3.7 | 2.6 | 3.4 | 2.4 | 3.5 | 2.5 | 3.5 | 2.5 | 3.5 | 2.5 | 3.6 | 2.5 | 3.5 | 2.5 | 35 | 9 | No |
| 21 | 3.7 | 2.6 | 3.2 | 2.2 | 3.2 | 2.2 | 3.3 | 2.3 | 3.1 | 2.2 | 3.4 | 2.4 | 3.1 | 2.2 | 35 | 9 | No |
| 22 | 3.6 | 2.5 | 3.2 | 2.2 | 3.3 | 2.3 | 3.4 | 2.4 | 3.2 | 2.2 | 3.4 | 2.4 | 3.2 | 2.2 | 35 | 9 | No |
| 23 | 3.7 | 2.6 | 3.3 | 2.3 | 3.3 | 2.3 | 3.3 | 2.3 | 3.3 | 2.3 | 3.7 | 2.6 | 3.3 | 2.3 | 35 | 9 | No |
| 24 | 3.7 | 2.6 | 3.2 | 2.2 | 3.4 | 2.4 | 3.4 | 2.4 | 3.2 | 2.2 | 3.7 | 2.6 | 3.2 | 2.2 | 35 | 9 | No |
| 25 | 3.7 | 2.6 | 3.4 | 2.4 | 3.2 | 2.2 | 3.3 | 2.3 | 3.2 | 2.2 | 3.6 | 2.5 | 3.2 | 2.2 | 35 | 9 | No |
| 26 | 4.1 | 2.9 | 3.5 | 2.5 | 3.2 | 2.2 | 3.2 | 2.2 | 3.3 | 2.3 | 3.4 | 2.4 | 3.3 | 2.3 | 35 | 9 | No |
| 27 | 5.5 | 3.9 | 4.3 | 3.0 | 3.4 | 2.4 | 3.4 | 2.4 | 3.3 | 2.3 | 3.3 | 2.3 | 3.3 | 2.3 | 35 | 9 | No |
| 28 | 5.3 | 3.7 | 4.0 | 2.8 | 3.6 | 2.5 | 3.6 | 2.5 | 3.5 | 2.5 | 3.3 | 2.3 | 3.5 | 2.5 | 35 | 9 | No |
| 29 | 4.7 | 3.3 | 3.7 | 2.6 | 3.5 | 2.5 | 3.5 | 2.5 | 3.4 | 2.4 | 3.5 | 2.5 | 3.4 | 2.4 | 35 | 9 | No |
| 30 | 4.5 | 3.2 | 3.4 | 2.4 | 3.5 | 2.5 | 3.3 | 2.3 | 3.3 | 2.3 | 3.6 | 2.5 | 3.3 | 2.3 | 35 | 9 | No |
| 31 | 4.6 | 3.2 | 3.5 | 2.5 | 3.4 | 2.4 | 3.3 | 2.3 | 3.2 | 2.2 | 3.5 | 2.5 | 3.2 | 2.2 | 35 | 9 | No |
| 32 | 4.2 | 2.9 | 3.5 | 2.5 | 3.2 | 2.2 | 3.2 | 2.2 | 3.2 | 2.2 | 3.1 | 2.2 | 3.2 | 2.2 | 35 | 9 | No |
| 33 | 4.7 | 3.3 | 4.5 | 3.2 | 3.8 | 2.7 | 3.7 | 2.6 | 3.6 | 2.5 | 3.8 | 2.7 | 3.6 | 2.5 | 35 | 9 | No |
| 34 | 4.7 | 3.3 | 4.5 | 3.2 | 3.7 | 2.6 | 3.8 | 2.7 | 3.7 | 2.6 | 4.0 | 2.8 | 3.7 | 2.6 | 35 | 9 | No |
| 35 | 4.7 | 3.3 | 4.1 | 2.9 | 3.9 | 2.7 | 3.8 | 2.7 | 3.7 | 2.6 | 4.2 | 2.9 | 3.7 | 2.6 | 35 | 9 | No |
| 36 | 5.0 | 3.5 | 4.1 | 2.9 | 3.8 | 2.7 | 3.8 | 2.7 | 3.7 | 2.6 | 3.6 | 2.5 | 3.7 | 2.6 | 35 | 9 | No |
| 37 | 4.8 | 3.4 | 4.2 | 2.9 | 4.0 | 2.8 | 3.7 | 2.6 | 3.6 | 2.5 | 3.8 | 2.7 | 3.6 | 2.5 | 35 | 9 | No |
| 38 | 4.5 | 3.2 | 3.9 | 2.7 | 3.5 | 2.5 | 3.6 | 2.5 | 3.5 | 2.5 | 3.4 | 2.4 | 3.5 | 2.5 | 35 | 9 | No |
| 39 | 4.1 | 2.9 | 3.5 | 2.5 | 3.5 | 2.5 | 3.4 | 2.4 | 3.3 | 2.3 | 3.3 | 2.3 | 3.3 | 2.3 | 35 | 9 | No |
| 40 | 4.2 | 2.9 | 3.6 | 2.5 | 3.4 | 2.4 | 3.4 | 2.4 | 3.4 | 2.4 | 3.3 | 2.3 | 3.4 | 2.4 | 35 | 9 | No |
| 41 | 4.1 | 2.9 | 3.5 | 2.5 | 3.3 | 2.3 | 3.3 | 2.3 | 3.3 | 2.3 | 3.3 | 2.3 | 3.3 | 2.3 | 35 | 9 | No |
| 42 | 4.1 | 2.9 | 3.3 | 2.3 | 3.1 | 2.2 | 3.1 | 2.2 | 3.1 | 2.2 | 3.2 | 2.2 | 3.1 | 2.2 | 35 | 9 | No |
| 43 | 3.9 | 2.7 | 3.1 | 2.2 | 3.3 | 2.3 | 3.2 | 2.2 | 3.1 | 2.2 | 2.9 | 2.0 | 3.1 | 2.2 | 35 | 9 | No |
| 44 | 3.9 | 2.7 | 3.2 | 2.2 | 3.0 | 2.1 | 3.1 | 2.2 | 2.9 | 2.0 | 2.9 | 2.0 | 2.9 | 2.0 | 35 | 9 | No |
| 45 | 4.0 | 2.8 | 3.4 | 2.4 | 2.9 | 2.0 | 2.8 | 2.0 | 2.8 | 2.0 | 2.6 | 1.8 | 2.8 | 2.0 | 35 | 9 | No |
| Worst Case | 5.5 | 3.9 | 4.5 | 3.2 | 4.0 | 2.8 | 3.8 | 2.7 | 3.8 | 2.7 | 4.2 | 2.9 | 3.8 | 2.7 | | | |

E. Noise Conditions

In order to best analyze the study area, a total of 9 noise sensitive areas (NSA) were identified. The NSA's were developed to best represent the various land-uses along MD 5 between logical physical features or changes to land-use within the corridor.

A highway noise analysis was conducted to identify the existing and future sound levels as they relate to the MD 5 study area. To determine the extent that the area is impacted by highway traffic noise a Traffic Noise Model was developed using the latest version of FHWA's Traffic Noise Model (TNM 2.5). Ambient sound level measurements were taken on May 28 & 29, 2008, however the highway noise analysis was completed in accordance with the Federal Highway Administration (FHWA) Noise Impact Criteria and the Maryland State Highway Administration (SHA) Noise Policy (July 2011). Fourteen (14) locations for the measurements were identified and approved by SHA prior to the field work. A total of thirteen (13) measurements were conducted, including two 24-hour measurements and eleven 20-minute short-term measurements. One of the approved short-term measurement locations was not used due to construction activities occurring during the measurement period. The 20-minute short-term measurements were conducted as close to the PM peak-traffic period as reasonable. All of the 20-minute sessions coincided with 20-minute traffic monitoring sessions.

Upon completion of the sound measurements and traffic counts, a traffic noise model was developed for the study area, inputting all pertinent roadways, terrain and shielding elements that characterize the study area's noise environment. Each ambient sound measurement location was represented in the model by a TNM modeled receiver.

Using the validated TNM model as a base, existing 2007 traffic volumes were input into TNM to establish the existing noise levels for MD 5. Additional modeled receivers were placed to determine the 66 dBA impact limits for each alternative.

A separate TNM model was developed for each of the Alternatives Retained for Detailed Study. The TNM models were built from the TNM Validation Model as the base condition for MD 5.

Roadways, terrain lines, ground cover, and other components of the TNM model were updated accordingly for each Alternative. Based on the TNM Model, sound levels at the modeled and monitored receiver locations were identified. Environmental Traffic provided by the SHA Travel Forecasting and Analysis Division was used in modeling the peak traffic sound levels for this study. Level-of-Service D traffic volumes and associated operating speeds for the future no-build condition and build alternatives were used, unless the future LOS was C or better.

1. Noise Effects

The results of the analysis show that the first row receivers along MD 5 experience decibel levels of 66 dBA or greater under existing conditions. By the year 2030 the noise levels are predicted to increase between 0 and 3 dBA due to traffic growth.

A total of nine (9) NSAs were identified and evaluated for each of the Alternatives Retained for Detailed Study for the MD 5 study area. Each of the alternatives was analyzed to determine the change in the noise environment, between the 2030 No-Build (Alternative 1) noise levels and the 2030 Build Alternatives (Table III-7).

In areas where the noise abatement criteria was reached or exceeded, noise abatement measures were considered. Due to the multiple driveways, business access, pedestrian issues, or proximity to intersections, none of the noise abatement measures for the impacted NSA's were found to meet the reasonableness or feasibility criteria to warrant further consideration. Therefore, noise mitigation is not recommended for further consideration as part of the MD 5 Leonardtown Project Planning Study.

Table III-7: Noise Analysis Summary

| NOISE SENSITIVE AREA | RECEIVER NUMBER | EXISTING CONDITIONS | ALTERNATE 1 (2030 NO-BUILD) | ALTERNATE 2 (TSM) | ALTERNATE 3 (5 LANE) | ALTERNATE 4 (4 LANE DIVIDED) | OPTION 2 (STREAM AVOIDANCE) | OPTION 3 (ALT. INTERSECTIONS) | OPTION 4 (MD 243 LEFT-TURN RESTRICTIONS) | LAND USE CATEGORY |
|----------------------|-----------------|---------------------|--------------------------------|----------------------|-------------------------|---------------------------------|--------------------------------|----------------------------------|---|-------------------|
| NSA 1 | R-01 | 57 | 59 | 59 | 60 | 60 | 60 | 61 | 61 | E |
| | R-02 | 65 | 68 | 68 | 68 | 68 | 68 | 69 | 69 | E |
| | R-03 | 62 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | G |
| | R-04 | 69 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | G |
| | R-05* | 52 | 54 | 54 | 54 | 54 | 55 | 55 | 55 | B |
| | R-06* | 53 | 56 | 56 | 56 | 56 | 56 | 56 | 57 | B |
| | R-07 | 61 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | G |
| | R-08* | 61 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | B |
| | R-09 | 69 | 72 | 72 | 72 | 72 | 72 | 73 | 73 | E |
| | R-10 | 61 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | E |
| | R-11 | 73 | 74 | 76 | 76 | 76 | 76 | 76 | 76 | E |
| NSA 2 | R-12* | 57 | 59 | 58 | 59 | 59 | 59 | 59 | 59 | E |
| | R-13 | 67 | 69 | 69 | 69 | 69 | 69 | 70 | 70 | E |
| | R-14* | 57 | 59 | 59 | 59 | 59 | 59 | 60 | 59 | E |
| | R-15 | 68 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | E |
| | R-16* | 63 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | E |
| | R-17* | 67 | 69 | 70 | 70 | 70 | 70 | 70 | 70 | E |
| NSA 3 | R-18 | 70 | 72 | 73 | 73 | 73 | 73 | 73 | 73 | E |
| | R-19 | 65 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | E |
| | R-20 | 62 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | E |
| | R-21 | 72 | 74 | 74 | 75 | 75 | 75 | 75 | 75 | E |
| | R-22 | 60 | 61 | 62 | 63 | 63 | 63 | 63 | 63 | C |
| | M-15 | 67 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | C |
| | R-23 | 58 | 59 | 60 | 61 | 61 | 61 | 61 | 61 | C |
| | R-24 | 71 | 72 | 71 | 72 | 72 | 72 | 72 | 72 | E |
| R-25 | 66 | 67 | 67 | 68 | 68 | 68 | 68 | 69 | E | |

* Second Row Receptor

** Under Option 2 these receivers were invalidated by the MD 5 horizontal alignment shift

*** Invalidated due to right-turn lane at MD 245

Bold number represents sound levels ≥ 72 dBA

Shaded- meets or exceeds noise impact criteria based on land use.

| NOISE SENSITIVE AREA | RECEIVER NUMBER | EXISTING CONDITIONS | ALTERNATE 1 (2030 NO-BUILD) | ALTERNATE 2 (TSM) | ALTERNATE 3 (5 LANE) | ALTERNATE 4 (4 LANE DIVIDED) | OPTION 2 (STREAM AVOIDANCE) | OPTION 3 (ALT. INTERSECTIONS) | OPTION 4 (MD 243 LEFT-TURN RESTRICTIONS) | LAND USE CATEGORY |
|----------------------|-----------------|---------------------|--------------------------------|----------------------|-------------------------|---------------------------------|--------------------------------|----------------------------------|--|-------------------|
| NSA 4 | R-26 | 59 | 60 | 61 | 62 | 61 | 61 | 63 | 63 | G |
| | R-27 | 61 | 62 | 62 | 63 | 62 | 62 | 64 | 64 | G |
| | R-28 | 69 | 70 | 70 | 71 | 71 | 70 | 71 | 70 | G |
| | R-29 | 67 | 68 | 68 | 69 | 69 | 68 | 69 | 69 | G |
| | R-30* | 50 | 51 | 52 | 53 | 53 | 52 | 53 | 53 | G |
| | R-31 | 64 | 65 | 65 | 66 | 66 | 65 | 68 | 68 | E |
| | R-32 | 74 | 74 | 74 | 75 | 75 | 74 | 75 | 75 | E |
| | R-33 | 63 | 64 | 65 | 66 | 65 | 64 | 66 | 66 | E |
| | R-34* | 52 | 53 | 53 | 54 | 53 | 53 | 54 | 54 | B |
| | R-35* | 53 | 54 | 55 | 56 | 55 | 55 | 56 | 56 | B |
| | R-36 | 71 | 72 | 72 | 73 | 73 | 72 | 73 | 73 | E |
| | R-37* | 56 | 57 | 57 | 58 | 58 | 57 | 59 | 59 | B |
| | R-38 | 72 | 73 | 73 | 73 | 73 | 72 | 73 | 73 | E |
| | R-39* | 61 | 63 | 62 | 63 | 63 | 62 | 64 | 64 | E |
| | R-40* | 49 | 50 | 50 | 51 | 51 | 50 | 51 | 51 | B |
| | R-41 | 61 | 62 | 62 | 63 | 63 | 62 | 63 | 63 | B |
| | R-42 | 69 | 70 | 70 | 69 | 69 | 68 | 69 | 69 | B |
| | R-43* | 52 | 53 | 53 | 53 | 53 | 53 | 54 | 54 | B |
| | R-44* | 51 | 52 | 52 | 53 | 53 | 52 | 54 | 54 | B |
| | R-45 | 59 | 59 | 59 | 60 | 60 | 59 | 61 | 61 | B |
| R-46 | 65 | 65 | 66 | 66 | 66 | 66 | 66 | 66 | B | |
| R-47 | 72 | 72 | 73 | 73 | 73 | 71 | 73 | 73 | B | |
| R-48 | 64 | 64 | 65 | 65 | 65 | 65 | 66 | 66 | B | |
| M-01 | 61 | 62 | 61 | 62 | 62 | 62 | 62 | 62 | B | |
| NSA 5 | R-49 | 68 | 68 | 69 | 69 | 69 | 70 | 70 | 70 | G |
| | R-50 | 75 | 75 | 76 | 77 | 77 | N/A** | 77 | 77 | G |
| | R-51 | 60 | 61 | 63 | 63 | 63 | 63 | 63 | 63 | G |
| | R-52 | 74 | 76 | 76 | 75 | 77 | N/A** | 77 | 77 | E |
| | R-53 | 68 | 69 | 69 | 67 | 70 | 70 | 70 | 70 | E |
| | R-54 | 59 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | E |
| | R-55 | 73 | 75 | 75 | 74 | 74 | 76 | 74 | 74 | E |
| | R-56 | 74 | 75 | 75 | 75 | 75 | N/A** | 75 | 75 | E |
| | R-57 | 68 | 69 | 69 | 69 | 69 | 70 | 69 | 69 | G |
| | R-58 | 71 | 72 | 72 | 73 | 73 | 75 | 73 | 73 | G |
| | R-59 | 61 | 62 | 63 | 64 | 64 | 64 | 65 | 65 | G |
| | R-60 | 74 | 74 | 74 | 74 | 74 | N/A** | 74 | 74 | G |
| | R-61 | 63 | 64 | 64 | 64 | 64 | 67 | 65 | 65 | G |
| | R-62 | 72 | 72 | 72 | 72 | 72 | 73 | 72 | 72 | G |

* Second Row Receptor

** Under Option 2 these receivers were invalidated by the MD 5 horizontal alignment shift

*** Invalidated due to right-turn lane at MD 245

Bold number represents sound levels ≥ 72 dBA

Shaded- meets or exceeds noise impact criteria based on land use.

| NOISE SENSITIVE AREA | RECEIVER NUMBER | EXISTING CONDITIONS | ALTERNATE 1 (2030 NO-BUILD) | ALTERNATE 2 (TSM) | ALTERNATE 3 (5 LANE) | ALTERNATE 4 (4 LANE DIVIDED) | OPTION 2 (STREAM AVOIDANCE) | OPTION 3 (ALT. INTERSECTIONS) | OPTION 4 (MD 243 LEFT-TURN RESTRICTIONS) | LAND USE CATEGORY |
|----------------------|-----------------|---------------------|--------------------------------|----------------------|-------------------------|---------------------------------|--------------------------------|----------------------------------|--|-------------------|
| NSA 6 | R-63* | 63 | 63 | 63 | 64 | 64 | 63 | 64 | 64 | B |
| | R-64* | 58 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | B |
| | M-02 | 73 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | B |
| | M-03* | 58 | 59 | 60 | 61 | 61 | 61 | 61 | 61 | B |
| | R-65 | 73 | 73 | 73 | 74 | 74 | 73 | 74 | 74 | B |
| | R-66 | 65 | 66 | 65 | 67 | 67 | 67 | 68 | 68 | B |
| | R-67* | 58 | 59 | 61 | 62 | 61 | 61 | 62 | 62 | B |
| | M-05* | 59 | 60 | 62 | 62 | 62 | 61 | 62 | 62 | B |
| | R-68 | 64 | 65 | 65 | 66 | 65 | 65 | 66 | 66 | B |
| | M-04 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | B |
| | R-69* | 58 | 59 | 61 | 61 | 60 | 60 | 60 | 61 | B |
| | R-70 | 62 | 63 | 64 | 64 | 63 | 63 | 64 | 64 | B |
| | M-06 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | B |
| | R-71* | 57 | 58 | 60 | 60 | 59 | 59 | 60 | 60 | B |
| | M-07* | 60 | 60 | 62 | 62 | 61 | 61 | 62 | 62 | B |
| | R-72* | 57 | 58 | 60 | 60 | 59 | 58 | 59 | 59 | B |
| | R-73 | 73 | 74 | 74 | 74 | 75 | 74 | 75 | 75 | B |
| | R-74 | 63 | 63 | 64 | 63 | 63 | 63 | 63 | 63 | B |
| | R-75* | 53 | 54 | 56 | 56 | 55 | 55 | 56 | 55 | C |
| | M-08 | 70 | 71 | 71 | 71 | 70 | 71 | 71 | 71 | E |
| | R-76 | 57 | 57 | 59 | 58 | 58 | 58 | 59 | 59 | E |
| | R-77* | 56 | 57 | 58 | 58 | 58 | 58 | 58 | 58 | C |
| | R-78* | 63 | 54 | 56 | 56 | 55 | 56 | 56 | 55 | C |
| | R-79 | 73 | 74 | 74 | 74 | 74 | 74 | 75 | 74 | E |
| | R-80* | 60 | 61 | 62 | 62 | 61 | 62 | 62 | 61 | E |
| | R-81 | 64 | 65 | 65 | 66 | 66 | 66 | 66 | 66 | E |
| R-82* | 58 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | E | |
| R-83* | 59 | 61 | 61 | 62 | 61 | 61 | 61 | 62 | E | |
| R-84 | 73 | 74 | 74 | 74 | 74 | 74 | N/A*** | 74 | E | |
| R-85* | 68 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | E | |

* Second Row Receptor

** Under Option 2 these receivers were invalidated by the MD 5 horizontal alignment shift

*** Invalidated due to right-turn lane at MD 245

Bold number represents sound levels ≥ 72 dBA

Shaded- meets or exceeds noise impact criteria based on land use.

| NOISE SENSITIVE AREA | RECEIVER NUMBER | ALTERNATE 1 (2030 NO-BUILD) | ALTERNATE 1 (2030 NO-BUILD) | ALTERNATE 2 (TSM) | ALTERNATE 3 (5 LANE) | ALTERNATE 4 (4 LANE DIVIDED) | OPTION 2 (STREAM AVOIDANCE) | OPTION 3 (ALT. INTERSECTIONS) | OPTION 4 (MD 243 LEFT-TURN RESTRICTIONS) | LAND USE CATEGORY | |
|----------------------|-----------------|--------------------------------|--------------------------------|----------------------|-------------------------|---------------------------------|--------------------------------|----------------------------------|--|-------------------|---|
| NSA 7 | R-86 | 72 | 73 | 73 | 73 | 73 | 74 | 73 | 73 | C | |
| | M-10 | 70 | 71 | 71 | 72 | 72 | 72 | 72 | 72 | B | |
| | R-87 | 62 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | B | |
| | R-88 | 68 | 69 | 69 | 69 | 69 | 69 | 70 | 70 | B | |
| | M-11* | 59 | 60 | 61 | 61 | 61 | 61 | 61 | 62 | B | |
| | R-89 | 72 | 73 | 74 | 74 | 74 | 74 | 74 | 74 | E | |
| | R-90 | 62 | 63 | 64 | 64 | 64 | 64 | 65 | 65 | B | |
| | R-91 | 73 | 74 | 75 | 75 | 75 | 75 | 75 | 75 | B | |
| | M-13 | 69 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | B | |
| | R-92* | 59 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | B | |
| | R-93* | 60 | 62 | 62 | 63 | 63 | 63 | 65 | 66 | 63 | B |
| | R-94* | 65 | 66 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | B |
| | R-95 | 66 | 68 | 68 | 68 | 68 | 68 | 67 | 69 | 68 | B |
| R-96 | 72 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | B | |
| NSA 8 | R-97 | 67 | 70 | 69 | 69 | 70 | 69 | 70 | 70 | C | |
| | R-98 | 69 | 71 | 71 | 71 | 71 | 70 | 72 | 72 | C | |
| | R-99 | 69 | 72 | 72 | 72 | 72 | 72 | 71 | 72 | G | |
| | R-100 | 60 | 63 | 62 | 63 | 63 | 63 | 64 | 64 | G | |
| | M-12 | 66 | 68 | 68 | 68 | 68 | 68 | 67 | 68 | G | |
| NSA 9 | R-101* | 62 | 65 | 65 | 65 | 65 | 66 | 67 | 65 | C | |
| | R-102 | 63 | 65 | 65 | 65 | 65 | 63 | 66 | 65 | C | |
| | R-103 | 67 | 70 | 70 | 70 | 70 | 69 | 71 | 70 | C | |
| | M-14 | 69 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | C | |
| | R-104* | 57 | 58 | 59 | 59 | 59 | 58 | 59 | 59 | C | |
| | R-105 | 70 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | C | |
| | R-106* | 53 | 55 | 55 | 56 | 55 | 55 | 56 | 56 | C | |
| | R-107 | 56 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | C | |
| | R-108 | 63 | 66 | 66 | 66 | 66 | 66 | 67 | 67 | C | |
| R-109 | 68 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | C | | |

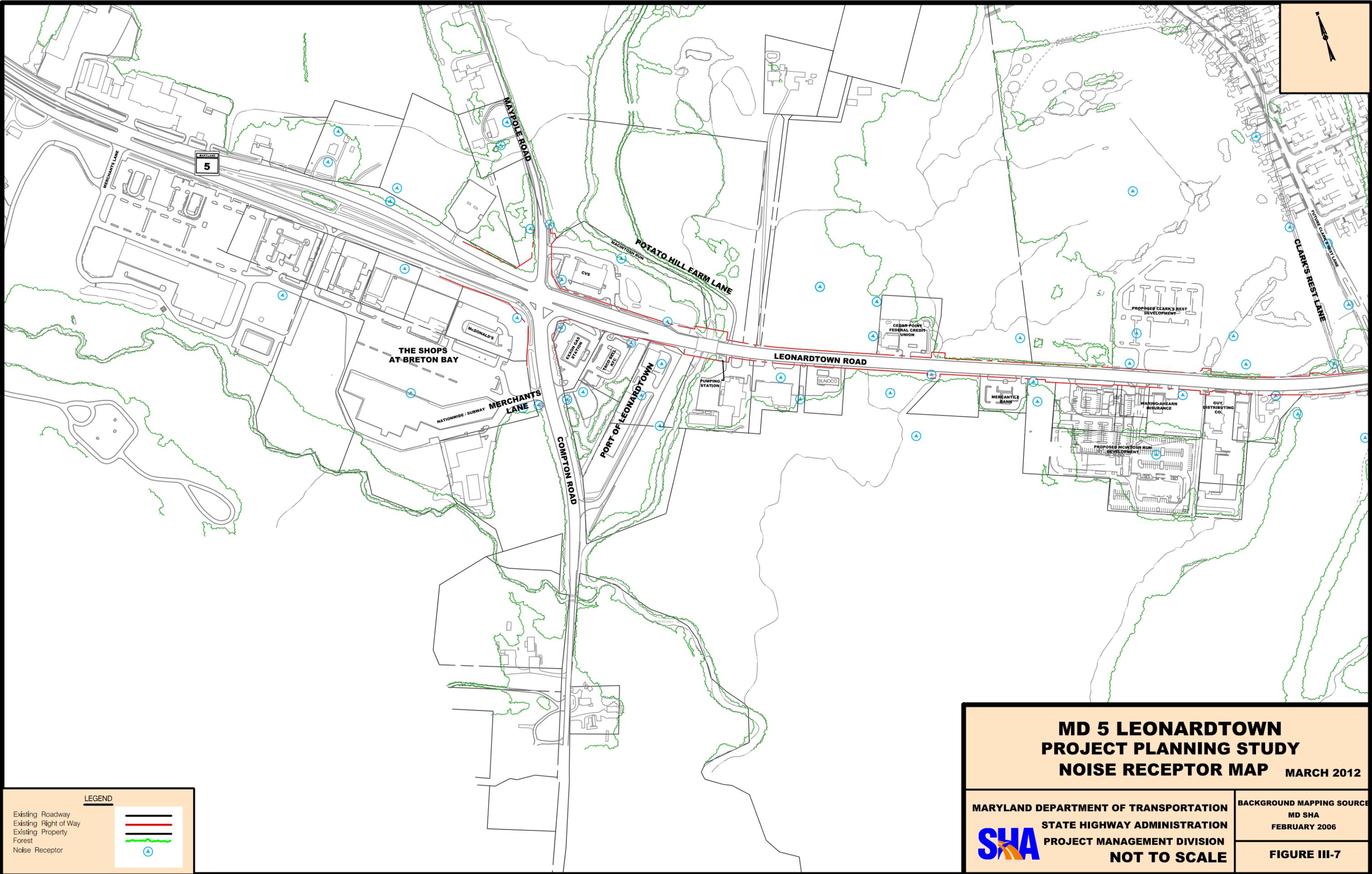
* Second Row Receptor

** Under Option 2 these receivers were invalidated by the MD 5 horizontal alignment shift

*** Invalidated due to right-turn lane at MD 245

Bold number represents sound levels \geq 72 dBA

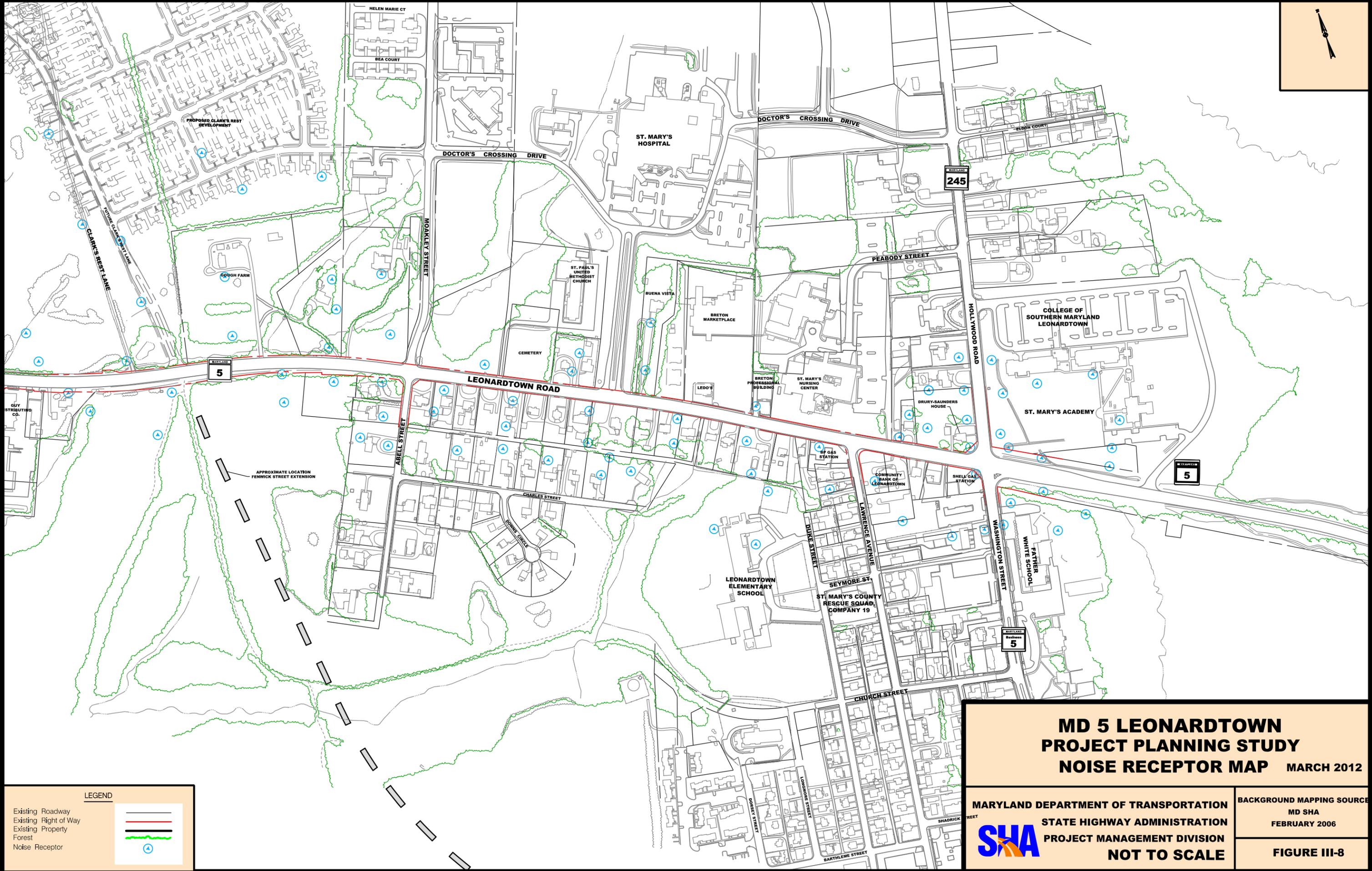
Shaded- meets or exceeds noise impact criteria based on land use.



LEGEND

- Existing Roadway
- Existing Right of Way
- Existing Property
- Forest
- Noise Receptor

| | |
|--|--|
| <h2 style="margin: 0;">MD 5 LEONARDTOWN PROJECT PLANNING STUDY NOISE RECEPTOR MAP</h2> <p style="text-align: right; margin: 0;">MARCH 2012</p> | |
| <p style="margin: 0;">MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION PROJECT MANAGEMENT DIVISION</p> <p style="text-align: center; margin: 0;">NOT TO SCALE</p> | <p style="margin: 0; font-size: small;">BACKGROUND MAPPING SOURCE MD SHA FEBRUARY 2006</p> <p style="text-align: center; margin: 0;">FIGURE III-7</p> |



LEGEND

- Existing Roadway
- Existing Right of Way
- Existing Property
- Forest
- Noise Receptor

**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
NOISE RECEPTOR MAP** MARCH 2012

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
PROJECT MANAGEMENT DIVISION
NOT TO SCALE

BACKGROUND MAPPING SOURCE
MD SHA
FEBRUARY 2006

FIGURE III-8



F. Hazardous Materials

A hazardous substance is defined as any material that poses a threat to human health and/or the environment. These materials are by-products that can pose a substantial or potential hazard to human health or the environment when improperly managed. To identify and account for the municipal, industrial, and residual waste materials within the study area, an Initial Site Assessment (ISA) was conducted in 2009 and updated with a state agency record review and another site reconnaissance of the project area to note changes or evidence of poor management in 2011.

Thirty sites within the project limits were reviewed for potential hazardous waste management concerns using SHA's Project Impact Ranking Criteria (PIRC). These sites were placed into one of five categories, from a "low" impact potential of 5 to a "high" impact potential of 1. Fifteen sites, shown in Table III-8 should be investigated further.

Roadway improvements will involve "sliver" takes and displacements at several properties within the corridor. If designs are modified to include additional portions of the properties, then these additional areas may require further evaluation. Therefore, based on the information obtained to date and the latest engineering designs, the potential concerns and recommendations for further studies to prove contamination at each site are described in Table III-9.

Should the required ROW impact/displace any structures, a hazardous materials survey should be completed to determine if there are mercury containing thermostats, switches, and florescent lights and PCB containing ballasts in the buildings. Asbestos inspections are also recommended to determine if asbestos-containing building materials are present in any structures that will be acquired as part of this roadway project.

Impacts were evaluated through a review of Preliminary Engineering Design drawings dated January 2009. This information is summarized in Table III-9.

Table III-8: Hazardous Waste Sites within the Study Area

| SHA RANKING | SITE | REC | PSI RECOMMENDATIONS |
|-----------------|--|--|---|
| High – 1 | Site #2 – Dash In Foods, Inc. | <ul style="list-style-type: none"> • Four previous USTs removed and contaminated soils and groundwater documented • Previous automobile service activities involved the use of hazardous materials • Six existing USTs | <ul style="list-style-type: none"> • Soil borings and soil sampling and analysis within the proposed ROW • If the existing tanks will be impacted by this project, then the tank(s) should be removed in accordance with appropriate MDE requirements |
| High – 1 | Site #3 – Former State Roads Commission Garage | <ul style="list-style-type: none"> • Historical LUST site with 7 previous USTs reportedly removed • Piping observed • Previous automobile service activities involved the use of hazardous materials | <ul style="list-style-type: none"> • Additional research to obtain UST closure documentation and then soil borings and soil sampling and analysis within the proposed ROW |
| High – 1 | Site #4 – Antiques and Gifts | <ul style="list-style-type: none"> • A previous UST removed around 1989 • Previous drycleaning operations involved the use of hazardous materials • 500-gallon diesel AST associated with the pumping station | <ul style="list-style-type: none"> • Soil borings and soil sampling and analysis within the proposed ROW |
| High – 1 | Site #6 – Sunoco Gas Station | <ul style="list-style-type: none"> • Five previous USTs with documented soil and groundwater contamination. Case closed by MDE in 2009 • Three existing USTs • Two existing ASTs • Monitoring wells observed • Improper waste disposal observed | <ul style="list-style-type: none"> • Soil borings and soil sampling and analysis or Special Provisions to address potential groundwater contamination if groundwater is encountered during construction • If existing tanks will be impacted, then the tanks should be removed in accordance with appropriate MDE requirements |
| High – 1 | Site #7 – Vacant Wooded Property | <ul style="list-style-type: none"> • Vent pipe | <ul style="list-style-type: none"> • Geophysical survey to evaluate subsurface conditions. If USTs are identified, then the tank should be removed in accordance with appropriate MDE requirements |
| Listed Site – 2 | Site #10 – Vacant Commercial Property | <ul style="list-style-type: none"> • Two previous USTs, one with documented soil and groundwater contamination • Possible fill/vent pipe • Stockpiled materials (sand/sandy soils and asphalt) | <ul style="list-style-type: none"> • Soil borings and soil sampling and analysis within the proposed ROW • Building interior should be inspected to evaluate if the fill/vent pipe observed along the eastern exterior wall is associated with an AST • If the stockpiled materials will be impacted, then a clean fill determination is recommended |

| SHA RANKING | SITE | REC | PSI RECOMMENDATIONS |
|--------------------|--|---|--|
| High – 1 | Site #11 – Vacant Gas Station | <ul style="list-style-type: none"> • Four previous USTs removed and MDE considers the case closed • Previous automobile service activities involved the use of hazardous materials • Three UST vent pipes and remnants of fuel island | <ul style="list-style-type: none"> • Geophysical survey to evaluate subsurface conditions. If USTs are identified, then these tanks should be removed in accordance with appropriate MDE requirements. • Soil borings and soil sampling and analysis within proposed ROW |
| Listed Site – 2 | Site #12 – Waring-Ahern Insurance | <ul style="list-style-type: none"> • Two previous USTs with documented soil contamination and MDE considers the case closed • Former bulk AST • Previous operations included an oil supply business and service station | <ul style="list-style-type: none"> • Soil borings and soil sampling and analysis within proposed ROW |
| Listed Site – 2 | Site #13 – Guy Distributing and Trucking | <ul style="list-style-type: none"> • Two previous USTs with documented soil and groundwater contamination and MDE considers the case closed • Three existing ASTs | <ul style="list-style-type: none"> • Soil borings and soil sampling and analysis within proposed ROW or Special Provisions should be prepared to address potential groundwater contamination if groundwater is encountered during construction activities |
| High – 1 | Site #15 – St. Paul’s Cemetery | <ul style="list-style-type: none"> • Potential for groundwater and soil contamination (formaldehyde, arsenic) at grave sites from former embalming activities | <ul style="list-style-type: none"> • Soil characterization for suspected contaminants in the vicinity of the grave sites or prepare Special Provisions to address potential impact if encountered during construction activities |
| High – 1 | Site #20 – St. Mary’s Nursing Center | <ul style="list-style-type: none"> • Existing UST • Existing AST • Two unknown pipes | <ul style="list-style-type: none"> • Geophysical survey to evaluate subsurface conditions. If USTs are identified, then tanks should be removed in accordance with appropriate MDE requirements • Additional research to evaluate use of the monitoring well |
| High – 1 | Site #22 – Leonardtown Service Center | <ul style="list-style-type: none"> • Nine previous USTs and one oil water separator tank with documented soil and groundwater contamination and MDE considers the case closed • Two existing ASTs • Current operations use hazardous materials | <ul style="list-style-type: none"> • Soil borings and soil sampling and analysis or Special Provisions should be prepared to address potential groundwater contamination if groundwater is encountered during construction activities • If existing tanks will be impacted, then the tank(s) should be removed in accordance with appropriate MDE requirements |

| SHA RANKING | SITE | REC | PSI RECOMMENDATIONS |
|--|--|---|---|
| High – 1 | Site #25 – Shell Gas Station and Car Wash | <ul style="list-style-type: none"> • Six previous USTs with documented soil and groundwater contamination and MDE considers the case closed • One heating oil UST removed in April 2010 though no confirmatory soil sampling analytical results available • Five existing USTs • Previous service stations activities involved the use of hazardous materials | <ul style="list-style-type: none"> • Soil borings and soil sampling and analysis • If existing tanks will be impacted, then the tank(s) should be removed in accordance with appropriate MDE requirements |
| High – 1 | Site #26 – Former Mattingly’s Texaco | <ul style="list-style-type: none"> • Eight previous USTs with documented groundwater and soil contamination and MDE considers the case closed • Previous service stations activities involved the use of hazardous materials | <ul style="list-style-type: none"> • Soil borings and soil sampling and analysis within proposed ROW |
| Listed Site – 2 | Site #28 – Winegardner Motors | <ul style="list-style-type: none"> • Two existing ASTs • Potential UST located approximately 150 feet west of MD 326/Washington Street | <ul style="list-style-type: none"> • None at this time |
| <p>AST = Aboveground Storage Tank LUST = Leaking Underground Storage Tank MDE = Maryland Department of the Environment ROW = Right-of-Way UST = Underground Storage Tank</p> | | | |

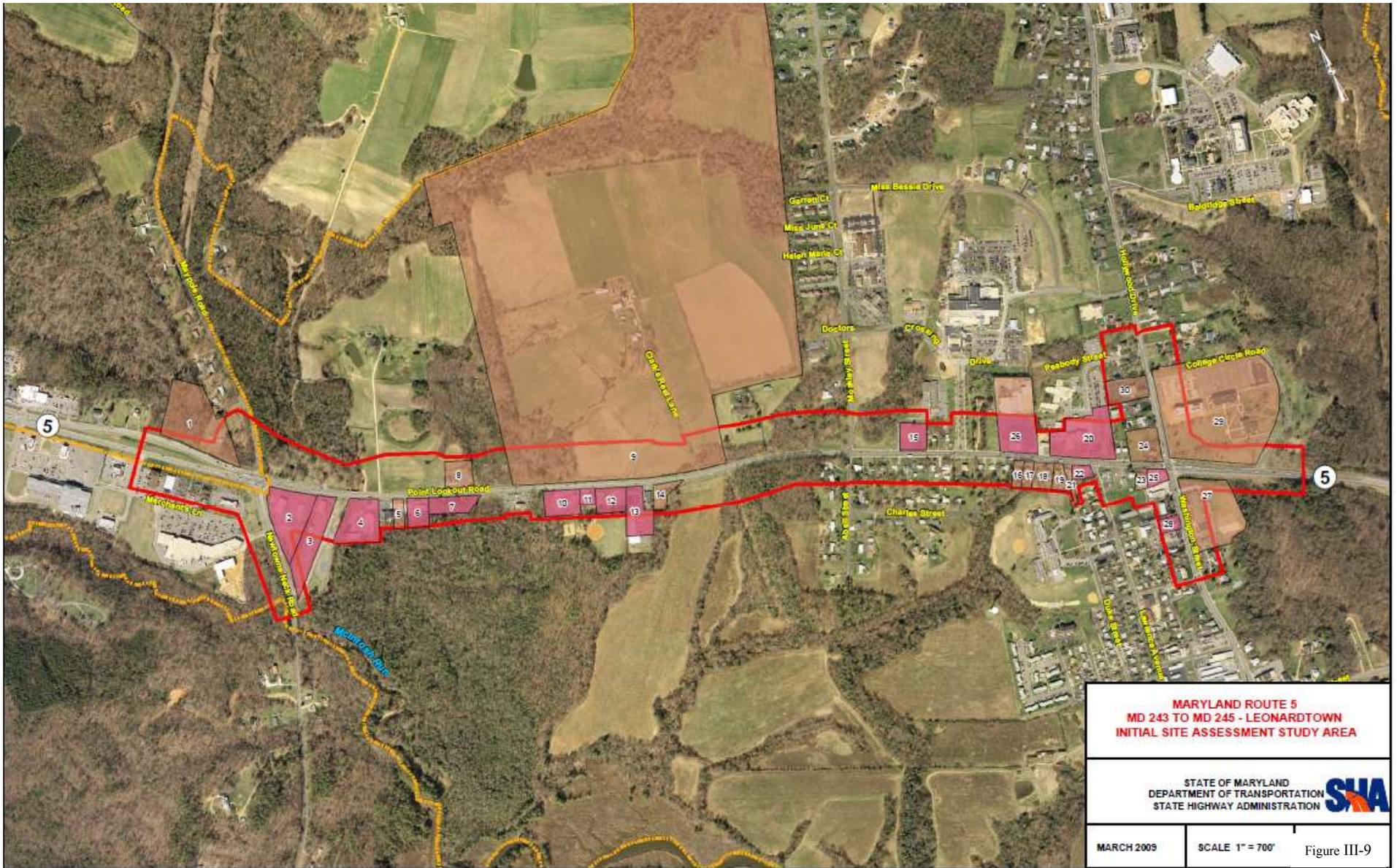
Table III-9: Hazardous Waste Site Impacts by Alternative

| SITE | ALTERNATIVE IMPACTS | | | | | |
|--|---------------------|----------|----------|-------------------|-------------------|-------------------|
| | ALT 2 | ALT 3 | ALT 4 | ALT 4 OPTION 2 | ALT 4 OPTION 3 | ALT 4 OPTION 4 |
| Site #2 – Dash In Foods, Inc. | X | X | X | X | X | X |
| Site #3 – Former State Roads Commission Garage | X | X | X | X | X | X |
| Site #4 – Antiques and Gifts | X | X | X | X | X | X |
| Site #6 – Sunoco Gas Station | D | D | D | D | D | D |
| Site #7 – Vacant Wooded Property | X | X | X | X | X | X |
| Site #10 – Vacant Commercial Property | | D | D | D | D | D |
| Site #11 – Vacant Gas Station | | D | D | D | D | D |
| Site #12 – Waring-Ahern Insurance, Inc. | | D | D | D | D | D |
| Site #13 – Guy Distributing and Trucking | | D | D | D | D | D |
| Site #15 – St. Paul’s Cemetery | X | X | X | X | X | X |
| Site #20 – St. Mary’s Nursing Center | X | X | X | X | X | X |
| Site #22 – Leonardtown Service Station | D | D | D | D | D | D |
| Site #25 – Shell Gas Station and Car Wash | D | D | D | D | D | D |
| Site #26 – Former Mattingly’s Texaco | X | X | X | X | X | X |
| Site #28 – Winegardner Motors | | | | | | |

X – Site impacted by alternative

D – Site impacted by alternative with structure displacements

Figure III-9: Map of Hazardous Waste Sites within the Study Area



G. Indirect and Cumulative Effects Analysis (ICE)

1. Scoping

The ICE was conducted in compliance with the National Environmental Policy Act (NEPA), and Council on Environmental Quality (CEQ) regulations (40 CFR 1508.25(c)) and Maryland State Highway Administration (MD SHA) guidelines. The ICE is required to investigate all past, present and reasonably foreseeable future actions. Secondary impacts are those reasonably foreseeable impacts occurring after the construction of the project, due to development that is dependent upon the project's alternatives. Cumulative effects are those incremental impacts on the environment, which result from the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertake such actions. ICE Scoping involved identifying environmental resources in the project area and ICE issues for consideration, such as data availability, geographic boundaries and time frames for analysis. The following sections have been prepared from the MD 5 ICE Technical Report.

a) Resources

In order to determine which environmental resources should be considered in the ICE analysis, the resources that would be directly impacted by the project's proposed improvement alternatives were identified. The resources directly impacted by the project form the basis for resources that are examined in the ICE analysis. In addition, the availability of the data (and the quality of the available data) to quantify and characterize the resources was evaluated.

The proposed project improvements involve improvements along the existing road alignment, primarily safety and operation improvements at existing intersections. Therefore, the MD 5 direct impact area (limits of disturbance) used in the ICE analysis was defined as the outermost boundary of the area defined by overlaying the individual limits of disturbance associated with each proposed alternative. This composite area is defined as the "Maximum Proposed Level of Disturbance" for the MD 5 Project (Figure III-12) and the direct impacts associated with this area represent the potential maximum direct impacts associated with the proposed MD 5 project.

The resources directly impacted within the MD 5 project's Maximum Proposed Level of Disturbance were identified as listed in Table III-10. The data for these resources have been determined to be available and relatively easy to access, based on the efforts conducted for the project's EAF document. Table III-10 also identifies representative sub-boundaries for each resource. The corresponding sub-boundaries used to represent the resources and to form the overall ICE geographic boundary.

Table III-10: ICE Analysis Resources and Effects

| POTENTIAL RESOURCES | INCORPORATION INTO ICE | RATIONALE FOR INCLUSION | REPRESENTATIVE SUB-BOUNDARY USED |
|--|------------------------|--|---|
| SOCIOECONOMIC | | | |
| Communities | Yes | Direct and/or Indirect Effects, including displacements, new development, and community cohesion impacts | Leonardtwn municipal boundary, Planning Areas (zoning districts for residential/commercial development, Leonardtown Development District, Priority Funding Areas), Water and Sewer Service Areas [Census tract/block boundaries were determined too large to be effective for the rural area and no traffic areas of influence have been identifies outside of the defined project limits so these boundaries were determined not applicable for the ICE Analysis] |
| Park and Recreation Facilities | Yes | Direct and/or Indirect Effects | Same as sub-boundaries used for community resources [no regional park district exists in the vicinity and boundaries for these resources/facilities are scattered throughout the project area and the surrounding region so these boundaries were determined not applicable for the ICE Analysis] |
| CULTURAL | | | |
| Historic Sites and Structures listed or eligible for listing on the National Register of Historic Places (NRHP) | Yes | Direct and/or Indirect Effects | Same as sub-boundaries used for community resources [no historic district exists in the vicinity and boundaries for these resources are scattered throughout the project area and the surrounding region so these boundaries were determined not applicable for the ICE Analysis] |
| NATURAL RESOURCES | | | |
| Floodplains | Yes | Direct and/or Indirect Effects | McIntosh Run and Town Run subwatersheds |
| Surface Water | Yes | Direct and/or Indirect Effects | McIntosh Run and Town Run subwatersheds |
| Wetlands/Non-Tidal Wetlands of Special State Concern (WSSC) | Yes | Direct and/or Indirect Effects | McIntosh Run and Town Run subwatersheds |
| Chesapeake Bay Critical Area | Yes | Indirect Effects | McIntosh Run and Town Run subwatersheds |
| Terrestrial Habitat/Forest Interior Dwelling Bird Species (FIDS) Habitat | Yes | Direct and/or Indirect Effects | McIntosh Run and Town Run subwatersheds |
| Agricultural Lands/Farmland Soils | Yes | Direct and/or Indirect Effects | McIntosh Run and Town Run subwatersheds |
| Forest lands and Green Infrastructure | Yes | Direct and/or Indirect Effects | McIntosh Run and Town Run subwatersheds |
| 100-foot Buffer for Rare, Threatened, or Endangered (RTE) Species (buffer area around wetlands that support RTE Species) | Yes | Direct and/or Indirect Effects | McIntosh Run and Town Run subwatersheds |

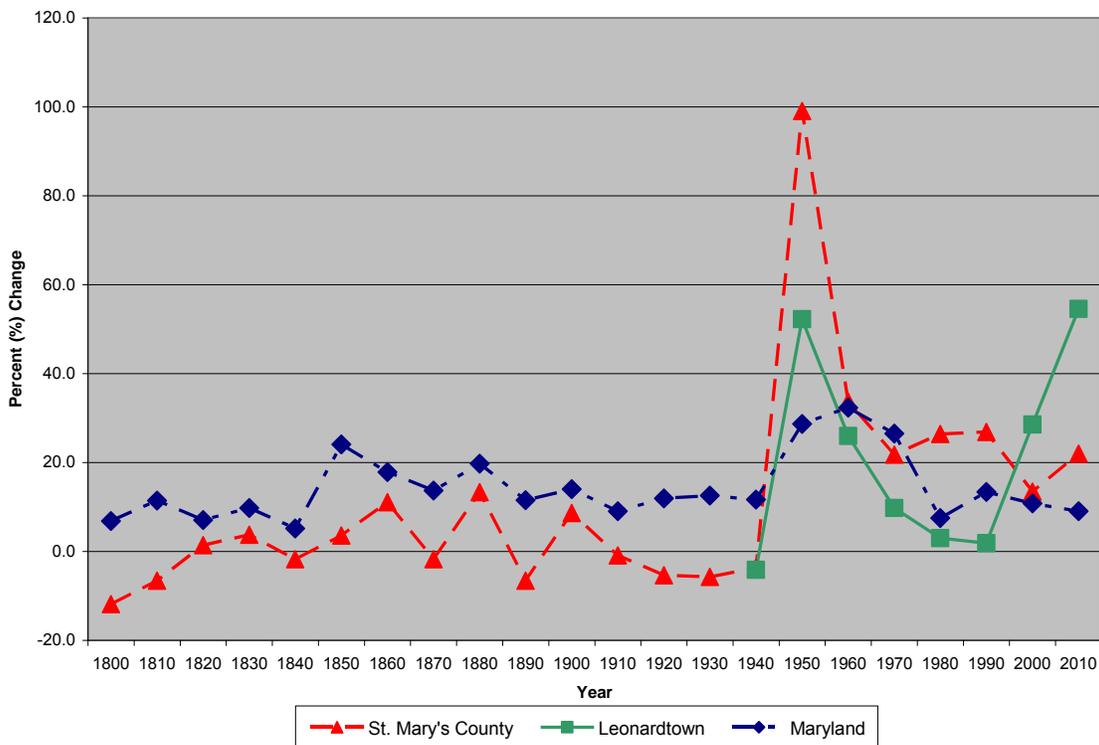
b) ICE Time Frames

Past and future ICE time frames were established to determine the appropriate “temporal boundary” in which to conduct the ICE analysis. For the MD 5 Leonardtown Project Planning Study, the years 1990 to 2030 are defined as the ICE temporal boundary as described below.

The past time frame determination was based on data that include events in the historic context of the study area that may have influenced population and land use changes.

Figure III-10: Percent Population Change from Previous Decade shows the rate of growth within each decade for Maryland, St. Mary’s County, and Leonardtown. While the rate of population change for the state has been fairly stable and always positive, indicating steady growth, in the mid-1940s the population in both the county and town made significant increases – far greater than the state’s growth. This rapid regional and local growth can be directly attributed to the construction and development of the Naval Air Station – Paxtuent River (NASPR). Growth continued to occur after this time, albeit at a smaller rate, as the NASPR complex grew. The growth rate for Leonardtown was particularly slower than the county growth rate from 1970 to

Figure III-10:Percent Population Change from Previous Decade¹



¹ Sources for demographic information include:

- Leonardtown Comprehensive Land Use Plan (2004) and Comprehensive Plan (2010)
- Leonardtown Water and Sewer Master Plan (2003)
- Maryland Department of Planning State Data Center (revised November 2010 Projections)
- St. Mary’s County Comprehensive Water and Sewerage Plan (2003)
- Quality Of Life In St. Mary’s County – A Strategy For The 21st Century (Comprehensive Plan, amended 2003, revised and adopted March 2010)

1990 due in part to the gradual shift of government offices from downtown Leonardtown to a complex outside of town that affected the overall development in the downtown business center. However, with the major expansions of the NASPR complex associated with the BRAC in the mid-1990s, the development of the Leonardtown campus of the College of Southern Maryland, the refurbishment of the two town squares and other focused public land enhancements, along with the construction of large residential developments, the rate of growth in Leonardtown has picked-up in the last two decades and has exceeded both the state's and county's growth rates.

Table III-11 summarizes the 10-year growth rate in employment for the state and the county (similar data for the Town of Leonardtown, the Leonardtown Development District, the Priority Funding Areas, and the ICE area are not readily available). While the labor force growth rate for the state was high from 1970 to 1990; it increased at approximately half the rate experienced in the county that saw growth ranging from 48.8% to 49.9%. The labor force grew at a much slower rate from 1990 to 2000 in the county and at an even slower rate statewide. Projections indicate slightly increased labor force growth rates after the year 2000 which again include higher rates for the county than projected for the state as a whole. The table also includes the number of jobs by place of work for the county that some believe is a better indicator of economic conditions. It is not unexpected that the growth rates for the county labor force and jobs would exceed the statewide rate given the rural nature of the area and the relatively low population where any growth in the county's labor force or jobs by work place would appear to be a large increase over the lower existing estimates. In addition, the county is home to the large NASPR that has been attracting many high tech industries while also offering a relatively good quality of life with many opportunities for recreation along the large shoreline.

Table III-11: Employment Trends, 1970 – 2040

| YEAR | MARYLAND'S LABOR FORCE | 10-YEAR RATE OF CHANGE | ST. MARY'S COUNTY LABOR FORCE | 10-YEAR RATE OF CHANGE | ST. MARY'S COUNTY JOBS BY PLACE OF WORK | 10-YEAR RATE OF CHANGE |
|-------------------|------------------------|------------------------|-------------------------------|------------------------|---|------------------------|
| HISTORICAL | | | | | | |
| 1970 | 1,655,695 | --- | 18,404 | --- | 19,164 | --- |
| 1980 | 2,108,296 | 27.3% | 27,376 | 48.8% | 21,211 | 10.7% |
| 1990 | 2,639,896 | 25.2% | 41,046 | 49.9% | 35,990 | 69.7% |
| 2000 | 2,769,525 | 4.9% | 46,032 | 12.1% | 48,952 | 36.0% |
| PROJECTED | | | | | | |
| 2010 | 3,123,710 | 12.8% | 54,370 | 18.1% | 63,200 | 29.1% |
| 2020 | 3,323,360 | 10.4% | 64,410 | 18.5% | 72,000 | 13.9% |
| 2030 | 3,435,090 | 3.4% | 73,420 | 14.0% | 77,900 | 8.2% |
| 2040 | 3,579,310 | 4.2% | 80,770 | 10.0% | 83,100 | 6.7% |

- Sources: "Labor Force" – Demographic and Socio-economic Outlook (MDP 2012 – projections prepared November 2010) and "Jobs by Place of Work" – Total Full and Part-time Jobs by Industry (MDP 2012 – projections prepared June 2011)
- "Labor Force" refers to the total number of persons, 16 years of age and older, classified as "employed" or "unemployed" counted by place of residence.
- "Jobs by Place of Work" refers to number of persons on individual employer payrolls, counted by place of work

Based on the past events and comparatively large increases in population within Leonardtown when compared to St. Mary's County as a whole, the year 1990 is defined as the past ICE time frame for the project. The two decades between 1990 and 2010 mark a period of various changes that had and will continue to have major long-term effects on the Leonardtown area and reverse the slow economic decline and stagnation of population that was experienced by the town through the 1970s and 1980s. These include: construction of the MD 5 Bypass (1990), major expansion of the NASPR complex (late 1990s), establishment of the College of Southern Maryland Leonardtown campus (1997), identification of Leonardtown as a Priority Funding Area (1998), refurbishment of the town squares (1998), development of public park and waterfront lands (2008 to 2010), and construction of large residential developments (on-going).

The future time frame was determined using the project's design year, 2030. Population projections for the Town of Leonardtown are available for this period (see Table III-12) but they have not been updated using current (2010) U.S. Census data and do not reflect the revised

(increased) projections made by the Maryland Department of Planning (MDP) for St. Mary's County. The year 2030 represents the outer future limit for reasonably foreseeable future actions. The ICE analysis is based on future population and land use management assumptions in addition to planned transportation improvements and land development activities.

c) ICE Geographic Boundary

Using the environmental resources that would be affected by direct and indirect impacts of project as a guide, multiple resource boundaries were reviewed to determine appropriate ICE sub-boundaries that would be used to create a single ICE Boundary. The initial sub-boundaries considered included watersheds, census tracts, area of traffic influence, state and local planning areas (including zoning, Priority Funding Areas, and county-designated Development District), and water/sewer service areas. The applicable sub-boundaries were identified and overlaid with each other using GIS analytical tools. This allowed the boundaries to be joined to create a single ICE boundary in which all indirect and cumulative effects were analyzed, see Figure III-11.

(1) Watershed Boundaries

Watershed or subwatershed boundaries were used in the ICE analysis to assess impacts to natural resources such as floodplains, streams, wetlands, Chesapeake Bay Critical Area, forest lands, wildlife habitat, species of concern (buffer areas), and farmland soils. The subwatershed boundaries were established by identifying the Maryland Department of Natural Resources' 8-digit subwatersheds completely or partially within the MD 5 project limits.

The MD 5 project area is in the Breton Bay watershed (02140104) of the Lower Potomac River watershed. Specifically, the ICE project area is encompassed by the Lower McIntosh Run subwatershed (includes bottomland drainage area and the tributaries of Nelson Run, Miski Run, and Greenhill Run), the Town Run subwatershed, portions of the Glebe Run and McIntosh Run headwaters subwatersheds, and portions of the shoreline direct drainage to Breton Bay. These subwatershed areas drain to the northern section of the bay at the southern border of the Town of Leonardtown and they make up over a quarter of the bay's total watershed. Table III-13 summarizes the land areas making up the bay's watershed and those drainage areas (subwatersheds) of the bay's watershed which encompass the MD 5 project area. The natural resources represented by watershed boundaries include the following:

- 100-Year Floodplains – areas defined by the Federal Emergency Management Agency (FEMA) mapping.
- Wetlands – areas identified for the National Wetland Inventory (NWI) and MDNR GIS data base, along with wetland areas delineated as part of the MD 5 project studies. Includes wetlands identified as “Nontidal Wetlands of Special State Concern,” by the MDE and MDNR.
- Chesapeake Bay Critical Area – land within 1,000 feet of the bay’s shoreline as defined by the Chesapeake Bay Protection Act of 1984 (amended 2002) which requires counties and municipalities to implement a land use and resource management program designed to mitigate water pollution impacts and loss of natural habitat, while accommodating development.
- Potential Habitat for Forest Interior Dwelling Bird Species (FIDS) – areas identified by the MDNR Landscape and Watershed Division and Natural Heritage Program (conservation of habitat is mandated within the Chesapeake Bay Critical Area including incorporating avoidance/minimization efforts into development plans and considering mitigation measures for unavoidable impacts in accordance with “A Guide to the Conservation of Forest Interior Dwelling Birds in the Chesapeake Bay Critical Area.”)

(2) Buffered Areas for Rare, Threatened, and Endangered Habitat – areas identified by the MDNR, Wildlife and Heritage Service (Sensitive Species Project Review Areas that generally include, but do not specifically delineate, such regulated areas as Natural Heritage Areas, Wetlands of Special State Concern, Colonial Waterbird Colonies, and Habitat Protection Areas).

Census tract boundaries are recommended under SHA guidelines to define boundaries representing socio-economic resources and communities affected by the project. The Leonardtown area is rural and the census tracts and block groups for this area are large, extending over large swaths of undeveloped lands beyond the municipal and planning area borders. The rural nature of these large tracts and block groups limits the ability to identify the geographical location of population growth within the project’s potential ICE area. Therefore, it was determined that the municipal boundary would be a more appropriate ICE sub-boundary for socioeconomic and community resources than the large census tracts and block groups.

(3) Area of Traffic Influence

The Area of Traffic Influence (ATI) is the geographic extent to which the project will affect traffic levels on nearby roadways. Typically Transportation Analysis Zones (TAZs) delineated by state and/or local transportation officials for tabulating traffic-related data (e.g., journey-to-work and place-of-work statistics) are used to create the ATI for a project. The Metropolitan Washington Council of Governments has developed TAZs for the Washington Metropolitan area that extends into St. Mary's County. Given the rural nature of the county, three large TAZ's (1178, 1179, and 1182) encompass the project area and they extend well beyond the municipal and planning area boundaries of Leonardtown.

It has also been determined that the MD 5 project will not have any immediate or long term effect on traffic levels on nearby roads. The project is not increasing the overall capacity of the roadway and there are no nearby parallel routes to MD 5 that would be affected by the diversion of traffic to a new improved MD 5. The project is a proposed on-line improvement project in response to ongoing and anticipated growth that would occur with or without the proposed improvements and it is not expected to affect traffic on the existing connecting routes. However, the installation of any new traffic signals along the new improved section of roadway may encourage travelers accessing (or exiting) the MD 5 corridor to use the new signalized intersections. Therefore, the connecting roads at any future signalized intersections would need to be evaluated to assess changes in traffic volumes on these roads. The Leonardtown Transportation Plan (2004) proposed two new signals in this section of the MD 5 corridor: one at the entrance to the proposed Clark Farm Residential Subdivision (where the proposed Tudor Farm entrance is also recommended – see Figure III-16: Proposed Local Development and Transportation Improvements) and one at the existing intersection of MD 5 and Abell and Moakley Streets.

(4) State and Local Planning Areas

Planning areas can be used to define boundaries representing socio-economic resources and communities affected by the project. St. Mary's County is located at the southern end of a peninsula, southeast of Washington D.C. With Calvert and Charles Counties, the three counties make up the region referred to as the Tri-County area or Southern Maryland. The county is

home to the NASPR and to over 200 high-tech defense contractors. These facilities are primarily in the county-defined Lexington Park Development District, approximately 12 miles east of Leonardtown by way of MD 5, MD 4, and MD 235. It is assumed that for the foreseeable future the high tech economic development occurring within the county's two development districts, Lexington Park and Leonardtown, will be the primary influence on growth and development in the county. Given this, the special land planning areas that may guide and influence future land development in the vicinity of the MD 5 project area are those primarily within the central portion of St. Mary's County. These areas include the following.

- Priority Funding Areas (PFA) – PFAs are existing communities and places where local governments want state investment to support future growth (as per the Smart Growth Priority Funding Areas Act of 1997). The Leonardtown PFA includes a Municipality PFA, a County Certified PFA, and a PFA Comment Area. The MD 5 project area is located within the Leonardtown PFA. This PFA also includes a Designated Neighborhood Revitalization Area in the older portion of the town.
- Target Investment Zone (TIZ) – TIZs are specific priority areas intended to attract private investment using incentives available through the Maryland Heritage Preservation and Tourism Areas Program. A portion of Leonardtown includes a TIZ that is identified for additional planned downtown development/redevelopment. It is located southwest of MD 5 and the project area and extends from McIntosh Run to just east of the downtown area. An associated project includes the recently completed Leonardtown Streetscape. This project included improvements to MD 5 Business from the MD 5/MD 245 intersection east to where the roadway intersects MD 5 again near the St. Mary's Ryken High School.
- Development District - Development Districts are designated by St. Mary's County in the Comprehensive Plan (2003/2010) as areas where the county will direct and encourage development as part of its growth management strategy. Leonardtown District is one of two districts in the county (Lexington Park is the second and larger District). The Leonardtown Development District includes the area east of the municipal limits and extends to Cedar Lane Road, including portions of the county certified Priority Funding Compliance Area.

The state and local planning areas that encompass the Town of Leonardtown are surrounded by large rural areas that are not targeted for development. An important principle of the county's new (2010) comprehensive land use plan is the need to focus new development in designated growth areas, such as Leonardtown. The county asserts that this can only be accomplished if areas targeted for development are supported by the necessary infrastructure and the extension of infrastructure into rural areas (e.g., the extension of public water and sewer service except to correct health hazards) is prohibited. The county plan also notes that maintenance of the rural character of the county and protection of sensitive areas and natural resources must be a priority. To that end, both the Leonardtown and the county have established zoning districts to implement the visions of their respective and compatible land use plans and to adhere to the "Smart, Green and Growing" visions of state statutes.

Local zoning districts can be used to represent planning areas and to help define the ICE geographic boundary. In particular, those zoning districts that accommodate residential, commercial, and industrial development should be included and those defined as rural preservation areas should be excluded. A large portion of the undeveloped western half of Leonardtown is zoned as PUD-M (Planned Unit Development – Mixed Use). PUD districts include a mix of both residential and nonresidential uses and are intended to create unique and cohesive communities within the built environment. Fully developed and maturing cities often use PUD for small infill and refill sites. Large areas surrounding the town have been zoned RPD (Rural Preservation District) with the intent to foster agricultural, forestry, mineral resource extraction, and aquacultural uses and to protect the land base necessary to support these activities.

(5) Sewer/Water Service Areas

Sewer and water service areas are boundaries identified for existing and future public service and can be used as a resource sub-boundary to represent socioeconomic and community resources affected by the project. The current St. Mary's County Comprehensive Water and Sewerage Plan (revised and adopted in January 15, 2008) was developed to implement the growth management concepts of the county's 2002 Comprehensive Plan. The plan includes various service area designations that indicate the status of existing and planned service for all parts of the county. Planned service areas include areas planned for service in the near future (within

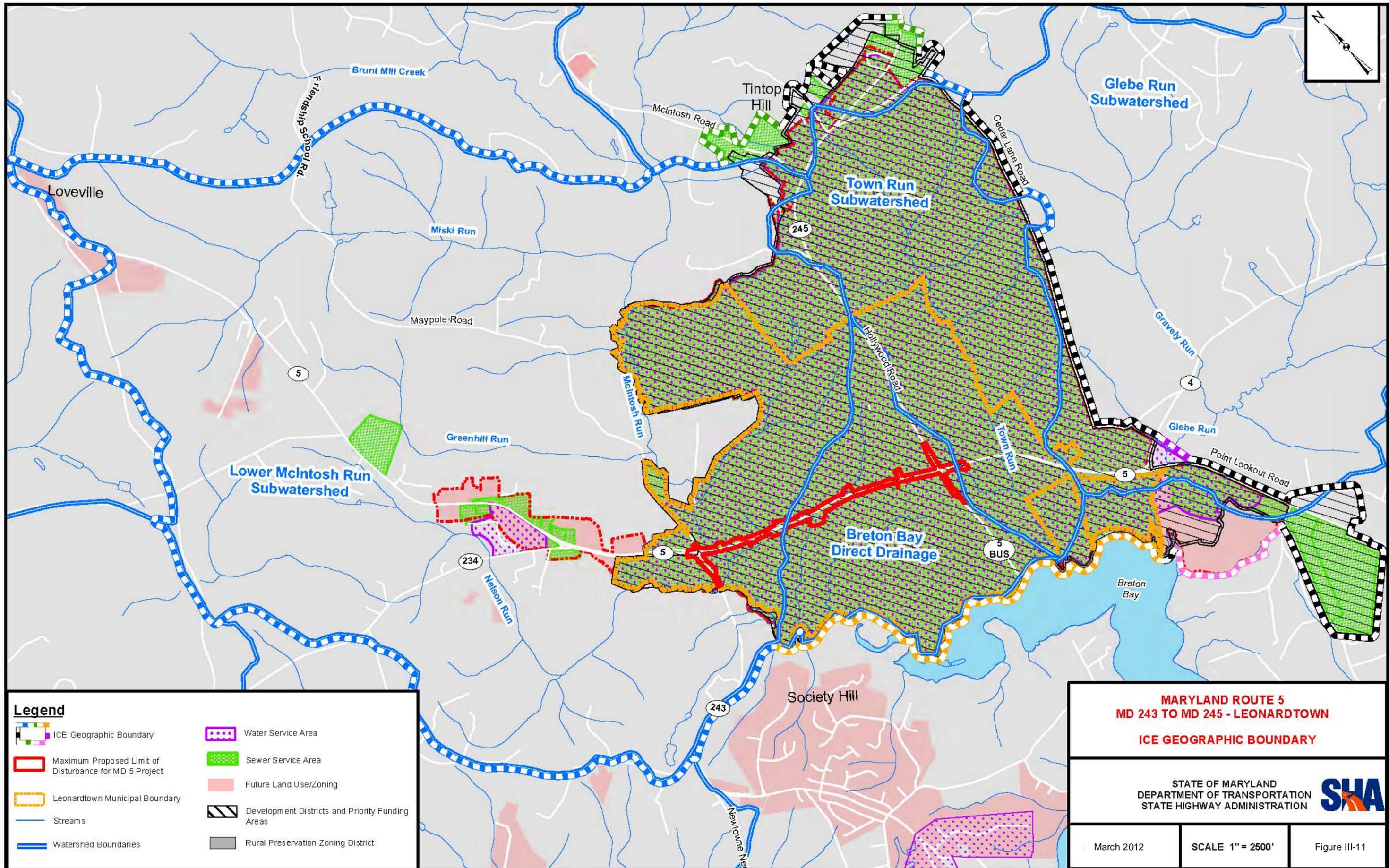
three to five years) and areas with potential (anticipated development that does not have concept approval). The remaining areas have been identified as “No Planned Service” areas for which no community water or sewerage service is planned within ten years.

The town owns and operates a wastewater treatment plant (WWTP), a wastewater collection system and a water production and distribution system. Sewer service is allocated from the Leonardtown WWTP plant in accordance with an Inter-jurisdictional Agreement that was signed by the town and the Metropolitan Commission on April 25, 1980, to divide the plant’s capacity between areas within and beyond town limits. The Metropolitan Commission’s capacity under the agreement for use beyond town limits was fully allocated as of June 2001. Therefore, no further allocations may be made outside town limits until the Leonardtown wastewater treatment system is expanded and a separate agreement is executed. The WWTP capacity is 0.68 mgd and it is currently operating at 0.423 mgd (2009). The town is considering a proposed expansion of the plant’s capacity to 0.95 mgd to accommodate planned development, including areas within the town’s newly expanded corporate limits. The town’s longer range plan is to increase the plant’s capacity to treat 1.2 mgd with enhanced nutrient removal (ENR) technology.

The town owns and operates a municipal water system consisting of four wells, three elevated storage tanks, and a distribution system. The system’s capacity is rated at 0.750 mgd and the 2006 demand was 0.420 mgd. As of December 2006, the town served 1,655 Equivalent Dwelling Units (EDU’s) with its water system – 105 of those EDU’s are outside town limits. However, the town’s current policy limits new connections to residents and commercial establishments located within the corporate limits. Recently efforts have been initiated to annex the Hayden Farm property that is planned to be the site for the new County School Campus. These efforts include changing the parcel’s water service category from W-6D (service in six to 10 years, developer financed) to W-3D (service in three to five years, developer financed). Based on projected growth, the town has previously determined that their water system’s present permit and well pumping capabilities can support projected growth into the year 2025 but will reach capacity before 2030.

(6) Overall ICE Geographic Boundary

The overall MD 5 ICE geographic boundary was established by evaluating and synthesizing the appropriate sub-boundaries as shown on Figure III-11. The ICE analysis involves natural environmental, socioeconomic, and cultural resources; however much of the focus in the MD 5 project area is on the natural environmental resources based on the rural nature of the region. Therefore, the subwatershed boundaries form much of the overall ICE Geographic Boundary, particularly along the western and northern boundary limits that are encompassed by the Lower McIntosh Run subwatershed.



Legend

-  ICE Geographic Boundary
-  Maximum Proposed Limit of Disturbance for MD 5 Project
-  Leonardtown Municipal Boundary
-  Streams
-  Watershed Boundaries
-  Water Service Area
-  Sewer Service Area
-  Future Land Use/Zoning
-  Development Districts and Priority Funding Areas
-  Rural Preservation Zoning District

**MARYLAND ROUTE 5
MD 243 TO MD 245 - LEONARDTOWN
ICE GEOGRAPHIC BOUNDARY**

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

March 2012 SCALE 1" = 2500' Figure III-11

The MD 5 ICE geographic boundary also accounts for existing communities (primarily the Town of Leonardtown) and future development using municipal boundaries, public water/sewer service areas, zoning districts (for residential/commercial development), and state and local planning area designations (Priority Funding Areas and Leonardtown Development Districts). In the vicinity of the Towne Run subwatershed there are small portions of planning areas and public water/sewer service areas that extend slightly beyond the subwatershed boundaries and the boundaries of these areas are used to define the eastern limits of the ICE boundary to ensure all parts of the community and all planned and ongoing land development projects are accounted for in the ICE analysis. It should be noted that the overlays for the various types of planning areas, residential/commercial zoning districts, public water/sewer service areas, and the municipal boundaries of Leonardtown have relatively similar physical limits, in part due to the coordinated efforts of state and local officials as part of the governments' commitments to Maryland's Smart Growth initiatives. These planning initiatives are intended to focus public infrastructure funds and encourage private investments in areas that support development within the existing town's corporate and public infrastructure limits.

Lastly, the Leonardtown municipal boundary is used to complete and define the southern portion of the ICE boundary. This part of the ICE geographic boundary includes the large Breton Bay Direct Drainage subwatershed area that extends along the entire perimeter of the bay outside of the MD 5 project's indirect impact area of influence. The municipal boundary was determined to be a reasonable limit, given the scope of the proposed transportation improvements of MD 5 are within the town's municipal limits.

d) INDIRECT AND CUMULATIVE EFFECTS AND MITIGATION

The following summarizes the approach used for the ICE analysis:

- Trends Analysis: Trend analysis was used to identify effects overtime, primarily for natural resources in the rural project area. This effort also helped to project future trends and provided context to characterize the severity of potential indirect impacts to resources that may already be under stress related to past and ongoing actions.
- Interviews: Information was gathered from county and town officials (in addition, to information in current planning documents) regarding proposed future development within the ICE boundary. This information was used to project the location and timing of future development activities that could be indirectly influenced by the proposed MD 5 transportation improvements or developed concurrently and resulting in cumulative effects on resources.

- **Overlays:** Overlays off future land development plans were used to identify and quantify potential effects on resources in the future.

e) **Background Information**

2. Land Use

Three land use scenarios (past, existing, and future) were assessed using state and county historic land use data and maps to identify trends in the land use and land cover from the past to present time frame for the area within the ICE Geographic Boundary. In addition, land potentially available for development in the future was identified by overlaying existing land cover/uses mapping with mapping of proposed local development and transportation improvements within the ICE boundary.

a) **Past and Present Land Use**

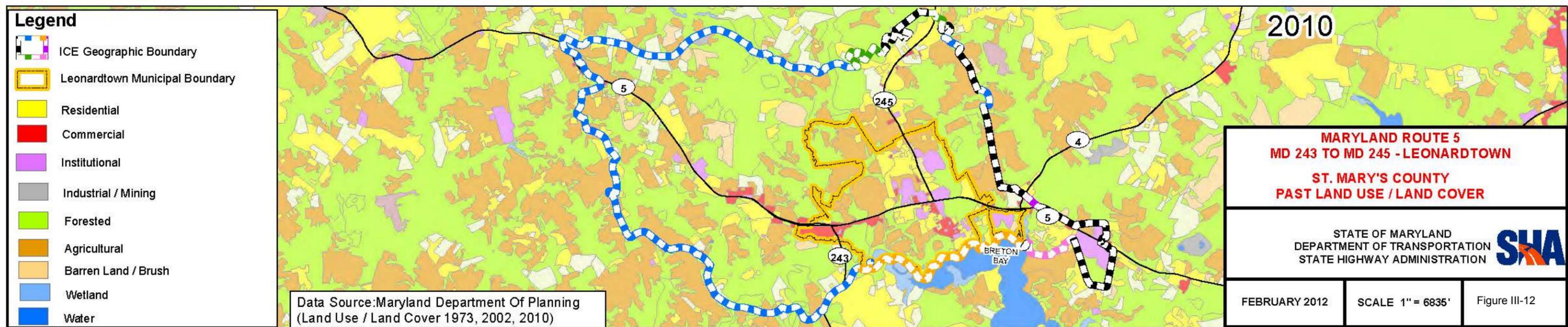
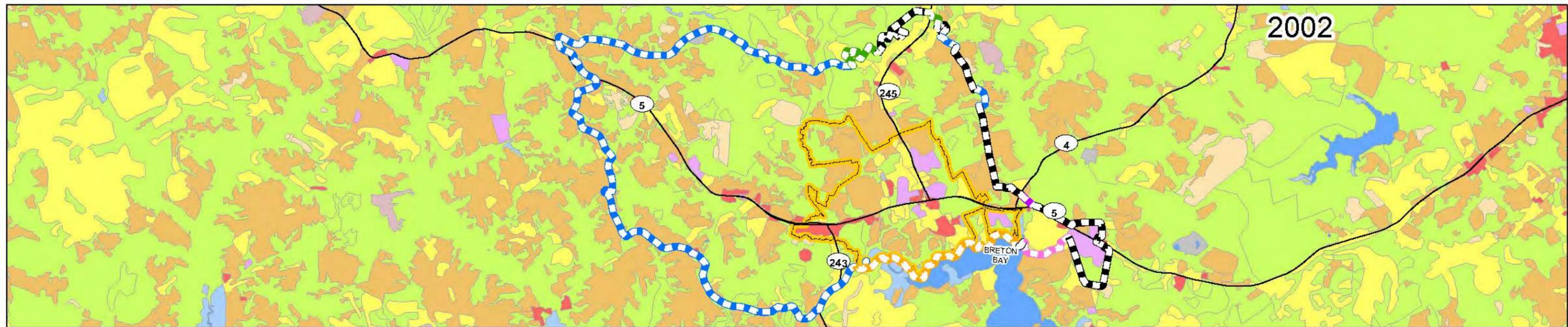
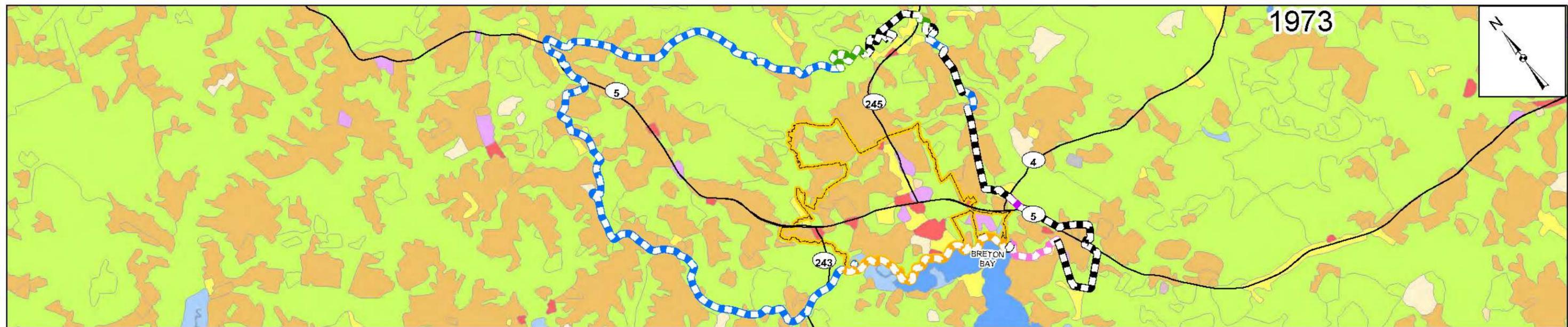
As illustrated in Table III-12 the county overall experienced a sizeable increase in residential areas and a steady decline in resource lands (with the exception of barren land) in the 18 years before 1990. However, during the 20 years after 1990, the county saw a slowdown in the rate of land development even as the population increased.

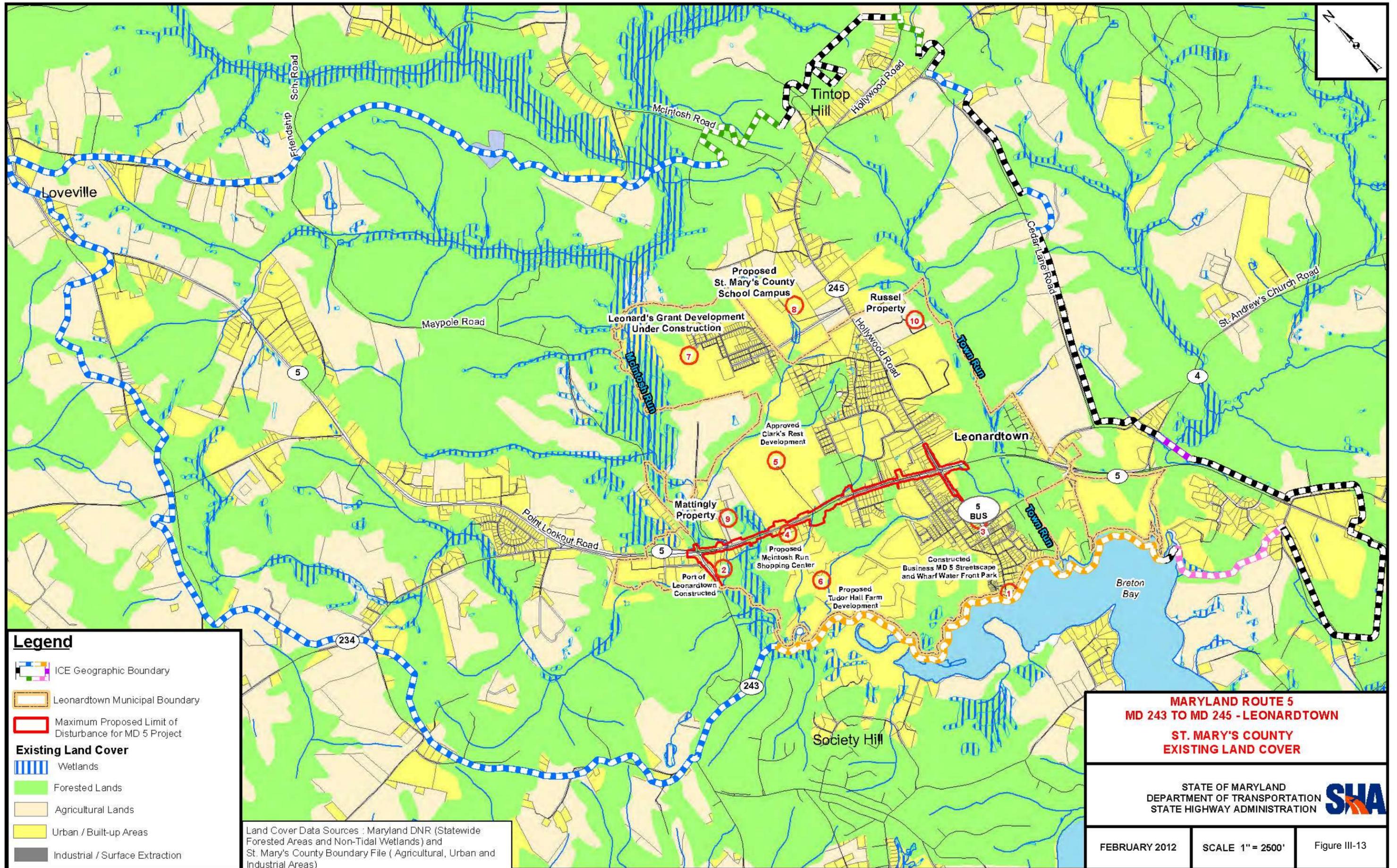
The MD Department of Planning provides map coverages of the land use/land cover for the years 1973, 2002, and 2010 as shown on Figure III-12: Past Land Use/Land Cover. This figure illustrates the spatial distribution of developed and undeveloped areas in the vicinity of the project area and shows the increase in development, particularly residential development that was fairly rapid in the last 30+ years but more focused to existing urban and town centers like Leonardtown since the 1990's. New residential/commercial areas are also shown occurring as roadside development along major roadways; MD 5, MD 4, and MD 245. In addition, there was large residential development activity southwest of the town just outside of the town limits and along Breton Bay. This area most likely developed just prior to the implementation of state and county growth management initiatives in the later 1990's because this area is outside of targeted growth areas defined by state Priority Funding Areas and county Development Districts. Both forest lands and agricultural lands have reduced through the years but preservation efforts for natural areas has slowed the loss for forest lands, particularly in the McIntosh Run watershed. Agricultural lands continue to decline in particular in the areas within PFA's and development districts such as those within the Leonardtown area.

Table III-12: Historic Land Use/Land Cover Changes in St. Mary's County

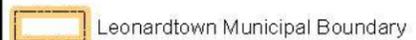
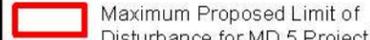
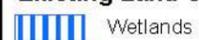
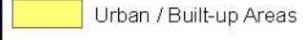
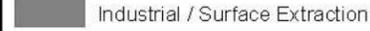
| LAND USE TYPE | LAND USE IN ACRES (% OF COUNTY TOTAL) | | | | | AVERAGE ANNUAL % CHANGE | |
|-----------------------------|---------------------------------------|----------------------|----------------------|----------------------|----------------------|-------------------------|----------------|
| | 1973 | 1990 | 1997 | 2002 | 2010 | 1973-1990 | 1990-2010 |
| Residential | 9,390 (4%) | 26,494 (11%) | 27,194 (12%) | 37,588 (16%) | 40,059 (17%) | +11 | +3% |
| Non-Residential | 7,022 (3%) | 8,540 (4%) | 9,795 (4%) | 10,655 (5%) | 11,587 (5%) | +1% | +2% |
| Total Development | 16,411 (7%) | 35,034 (15%) | 36,989 (16%) | 48,242 (21%) | 51,647 (22%) | +7% | +2% |
| Agriculture | 72,311 (31%) | 67,415 (29%) | 64,703 (28%) | 60,308 (26%) | 54,837 (24%) | <-1% | -1% |
| Forest | 139,794 (60%) | 125,463 (54%) | 125,706 (54%) | 118,504 (51%) | 120,908 (52%) | -1% | <-1% |
| Barren Land | 125 (<0.5%) | 491 (<0.5%) | 839 (<0.5%) | 862 (<0.5%) | 793 (<0.05%) | +17% | +3% |
| Wetland | 2,548 (1%) | 2,877 (1%) | 2,552 (1%) | 2,887 (1%) | 2,725 (1%) | +1% | <-1% |
| Total Resource Lands | 214,778 (93%) | 196,246 (85%) | 193,800 (84%) | 182,561 (79%) | 179,263 (78%) | -1% | <-1% |

Figure III-12 and Figure III-13 illustrate existing land cover and existing land use, respectively. Table III-14 summarizes and compares the existing land covers and natural resources within the total Breton Bay watershed and the MD 5 ICE geographic area. Over half of the land within Leonardtown's municipal boundaries is currently farmland or woodland, including a large portion of the western half of town. Most of the undeveloped portions of Leonardtown are within the McIntosh Run drainage area. Forest lands in the Breton Bay watershed, in particular the McIntosh Run watershed, have been identified as important natural resource and habitat area by two different programs: DNR's Green Infrastructure model and The Nature Conservancy's ecoregion-based planning process. However the McIntosh Run watershed is not a state-designated Natural Heritage Area.



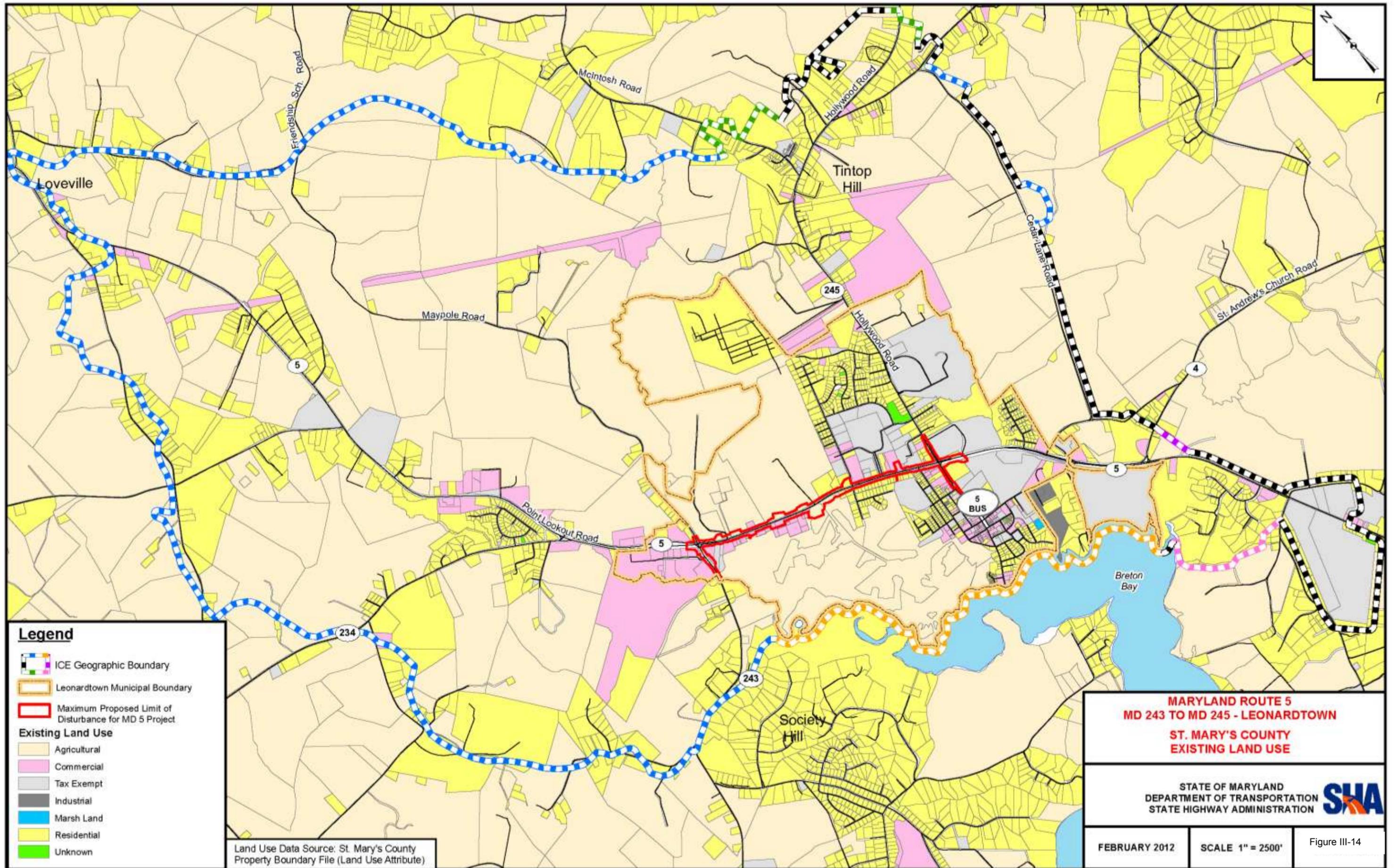


Legend

-  ICE Geographic Boundary
-  Leonardtown Municipal Boundary
-  Maximum Proposed Limit of Disturbance for MD 5 Project
- Existing Land Cover**
-  Wetlands
-  Forested Lands
-  Agricultural Lands
-  Urban / Built-up Areas
-  Industrial / Surface Extraction

Land Cover Data Sources : Maryland DNR (Statewide Forested Areas and Non-Tidal Wetlands) and St. Mary's County Boundary File (Agricultural, Urban and Industrial Areas)

| | | |
|--|------------------|---------------|
| <p>MARYLAND ROUTE 5 MD 243 TO MD 245 - LEONARDTOWN</p> <p>ST. MARY'S COUNTY EXISTING LAND COVER</p> | | |
| <p>STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION</p>  | | |
| FEBRUARY 2012 | SCALE 1" = 2500' | Figure III-13 |



Legend

-  ICE Geographic Boundary
-  Leonardtown Municipal Boundary
-  Maximum Proposed Limit of Disturbance for MD 5 Project
- Existing Land Use**
-  Agricultural
-  Commercial
-  Tax Exempt
-  Industrial
-  Marsh Land
-  Residential
-  Unknown

Land Use Data Source: St. Mary's County Property Boundary File (Land Use Attribute)

| | | |
|--|------------------|---------------|
| <p>MARYLAND ROUTE 5 MD 243 TO MD 245 - LEONARDTOWN ST. MARY'S COUNTY EXISTING LAND USE</p> | | |
| <p>STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION</p>  | | |
| FEBRUARY 2012 | SCALE 1" = 2500' | Figure III-14 |

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Table III-13: Existing Land Cover and Resources In ICE Geographic Boundary

| LAND COVER/RESOURCE | BRETON BAY AREA (% OF TOTAL) | MD 5 ICE AREA (% OF TOTAL) |
|--|--|--|
| Total Area, acres | 35,265 acres | 10,010 acres |
| EXISTING LAND USE | | |
| Forest Cover, acres (% of total) | 21,760 acres (62%) ¹ 24,083 acres (68%) ² | 4,913 acres (49%) ¹ 5,478 acres (55%) ² |
| Agriculture, acres (% of total) | 5,980 acres (17%) | 2,210 acres (22%) |
| Wetlands, acres (% of total) | 2,636 acres (7%) ¹ 313 acres (1%) ² | 661 acres (7%) ¹ 96 acres (1%) ² |
| Urban/Developed, acres (% of total) | 4,818 acres (14%) | 2,206 acres (22%) |
| Other (% of total area) | 71 acres (<1%) | 20 acres (<1%) |
| RESOURCES | | |
| 100-Year Floodplain, acres | 2,382 acres (7%) | 823 acres (8%) |
| Surface Water, linear feet | 762,576 linear feet | 239,372 linear feet |
| Non-tidal Wetlands of Special State Concern, acres | 142 acres (<1%) | 142 acres (1%) |
| 100-foot buffer for RTE Species, acres | 105 acres (<1%) | 105 acres (1%) |
| Chesapeake Bay Critical Area, acres | 2,874 acres (8%) | 548 acres (5%) |
| Potential FIDS Habitat, acres | 14,723 acres (42%) (68% of forest cover) | 3,852 acres (38%) (70% of forest cover) |
| Prime Farmland Soils, acres | 4,423 acres (13%) | 969 acres (10%) |
| Soils of Statewide Importance, acres | 13,905 acres (43%) | 4,835 acres (48%) |
| Green Infrastructure, acres | 24,499 acres (69%) | 3,239 acres (32%) |
| Hub/Corridor Forest | 24,400 acres (69%) | 3,208 acres (32%) |
| Hub/Corridor Marsh | 99 acres (<1%) | 31 acres (<1%) |

1 These numbers exclude forested wetlands in the forest cover acreage and include them in the wetland acreage.

2 These numbers include forested wetlands in the forest cover acreage and exclude them in the wetland acreage.

While the majority of the Breton Bay watershed is undeveloped and forested, less than 1% of the watershed is currently protected for natural resources. (The Breton Bay Watershed Restoration Action Strategy, July 2003). Agricultural easements and agricultural districts preserved as part of the Maryland Agricultural Land Preservation Foundation (MALPF) program together account for a few hundred acres of land in the watershed. No DNR land or Federal land and no easements by the Maryland Environmental Trust or private conservation organizations have been identified in the bay's watershed. However, St. Mary's County does include some small areas identified as forest conservation easements. The Town of Leonardtown recently established two small municipal parks, The Port of Leonardtown at the former SHA property located in the McIntosh Run floodplain immediately adjacent to MD 5 and the Wharf Waterfront Park along

Breton Bay at the southern tip of Washington Street. In addition, a county recreational property, Miedzinski Park, is located along Hollywood Road at the County Government Complex.

b) Future Land Use and Development Activities

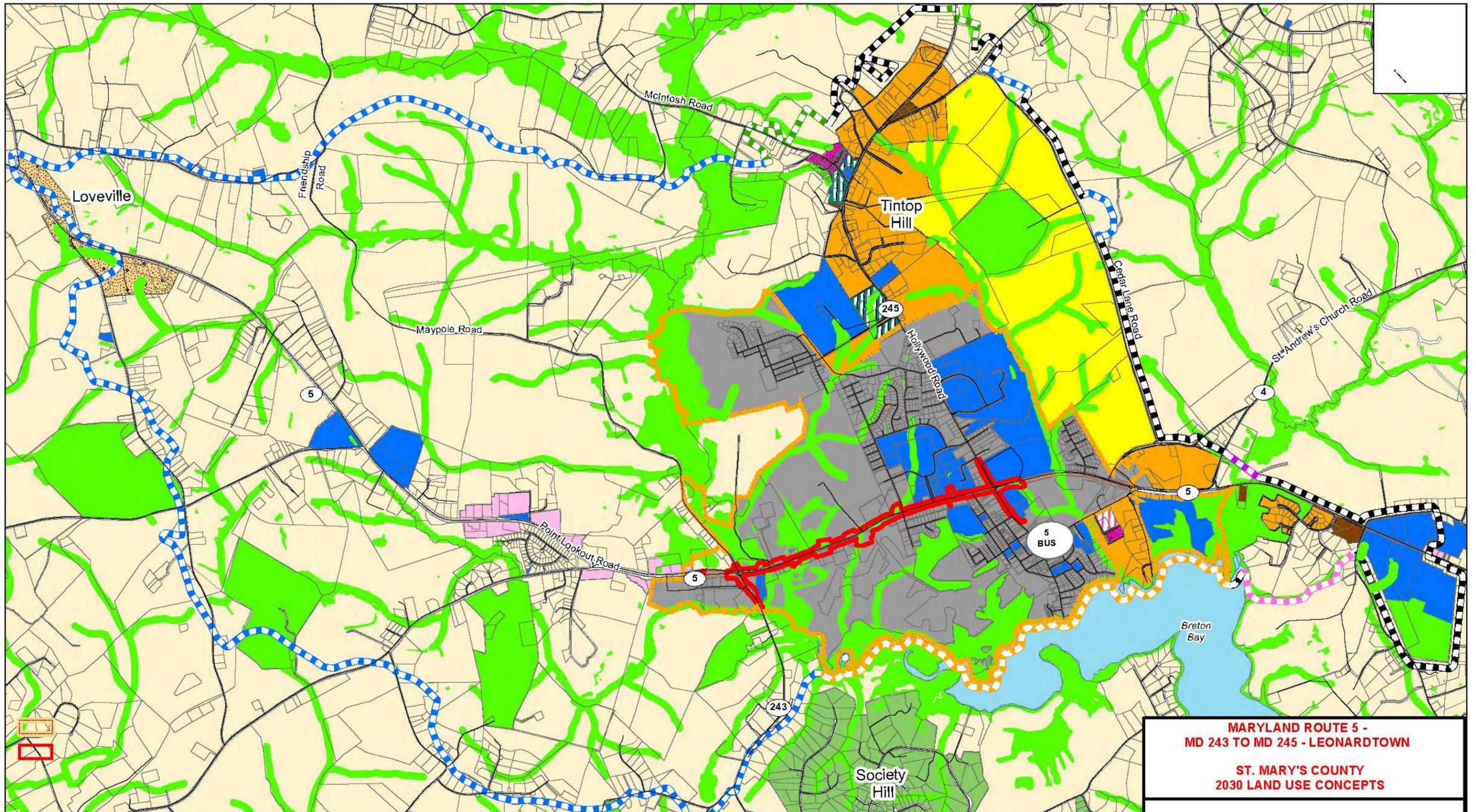
The continued growth of the PRNAS (and the associated defense contractor industry) is anticipated to affect development in the county and Leonardtown for the foreseeable future. In addition, the recreational opportunities associated with 400 miles of shoreline, are expected to grow and serve not only the new residential growth in the county but also the nearby urban areas of Washington D.C. and Baltimore. The information on population projections provided in Table III-12, indicate continued rapid growth for the county in the coming decades. The projections for Leonardtown are more modest than those for the county, but the town's projections do not reflect the updated (2010) and increased projections provided by the Maryland Planning Department for the county (this updated information is not available at the Census "place" level).

St. Mary's County 2010 comprehensive plan includes a Land Use and Growth Management Element. The county's approach to growth management is to target areas planned for growth to receive a majority of residential, commercial and industrial development. These areas are served or proposed to be served with public water and sewer and other infrastructure to meet the needs of current and future residents. Infill development is encouraged, as are compatible design criteria and efficient transportation networks to ensure efficient use of land in all growth areas. The county plan has defined the Leonardtown Development District to protect the watershed of McIntosh Run. Pockets of development along Point Lookout Road (MD 5) north and west of Leonardtown, including Loveville, are recognized by the county for their history and contribution to the local economy, but these areas are not intended to expand or intensify or to be integrated into the development district. As defined by the county's plan, Village Centers such as Loveville are intended to serve as the focus for rural community facilities, services and activities. Figure III-15 illustrates the county's "concept land use plan" for the Leonardtown Development District and the Loveville Village Center as presented in the county's 2010 comprehensive plan.

The anticipated continued growth and revitalization of Leonardtown is demonstrated in the various recent and planned development activities shown on Figure III-16 and listed in Table III-14. It should be noted, the implementation and construction of the planned development projects are not dependent on the completion of the proposed MD 5 project improvements. These project areas have existing access to MD 5 or other connecting roads in the local road network; however, the proposed MD 5 transportation improvements are intended to consider and accommodate the land development activities, particularly those with planned direct access to MD 5 in the project corridor.

Figure III-16 also includes the outer boundary of the Maximum MD 5 LOD which represents a worse case LOD to quantify the MD 5 project's potential maximum direct impacts assessed as part of the cumulative effects analysis. The planned development also includes proposed transportation improvements that are described in Section 5 of the Leonardtown Comprehensive Plan (April 2010) and Chapter 11 of the St. Mary's County Comprehensive Plan (March 2010) for alleviating congestion along MD 5 and MD 245, improving access to the Government Centers and Hospital, and enhancing mobility throughout Leonardtown. These proposed transportation improvements shown on Figure III-16 and listed in Table III-14 are the only major transportation improvements planned or proposed within the larger ICE boundary and time frame. The locations shown on Figure III-16 for the recent and proposed local development projects within the Leonardtown area correspond to the county's concept land use plan for the Leonardtown Development District shown on Figure III-15.

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Legend

| | | | | | | | | | | | |
|--|--|--|----------------------|--|-----------------------|--|-----------------------------|--|--------------------|--|-------------------------|
| | ICE Geographic Boundary | | Community Commercial | | Public Lands | | Residential--High Density | | Rural Commerce | | Mixed Use Low Intensity |
| | Leonardtown Municipal Boundary | | Corridor Mixed-use | | Residential Mixed-use | | Residential--Medium Density | | Rural Preservation | | Protected Open Space |
| | Maximum Proposed Limit of Disturbance for MD 5 Project | | Tidal Waters | | Industrial | | Residential--Low Density | | Rural Residential | | Municipal Jurisdiction |

**MARYLAND ROUTE 5 -
MD 243 TO MD 245 - LEONARDTOWN**

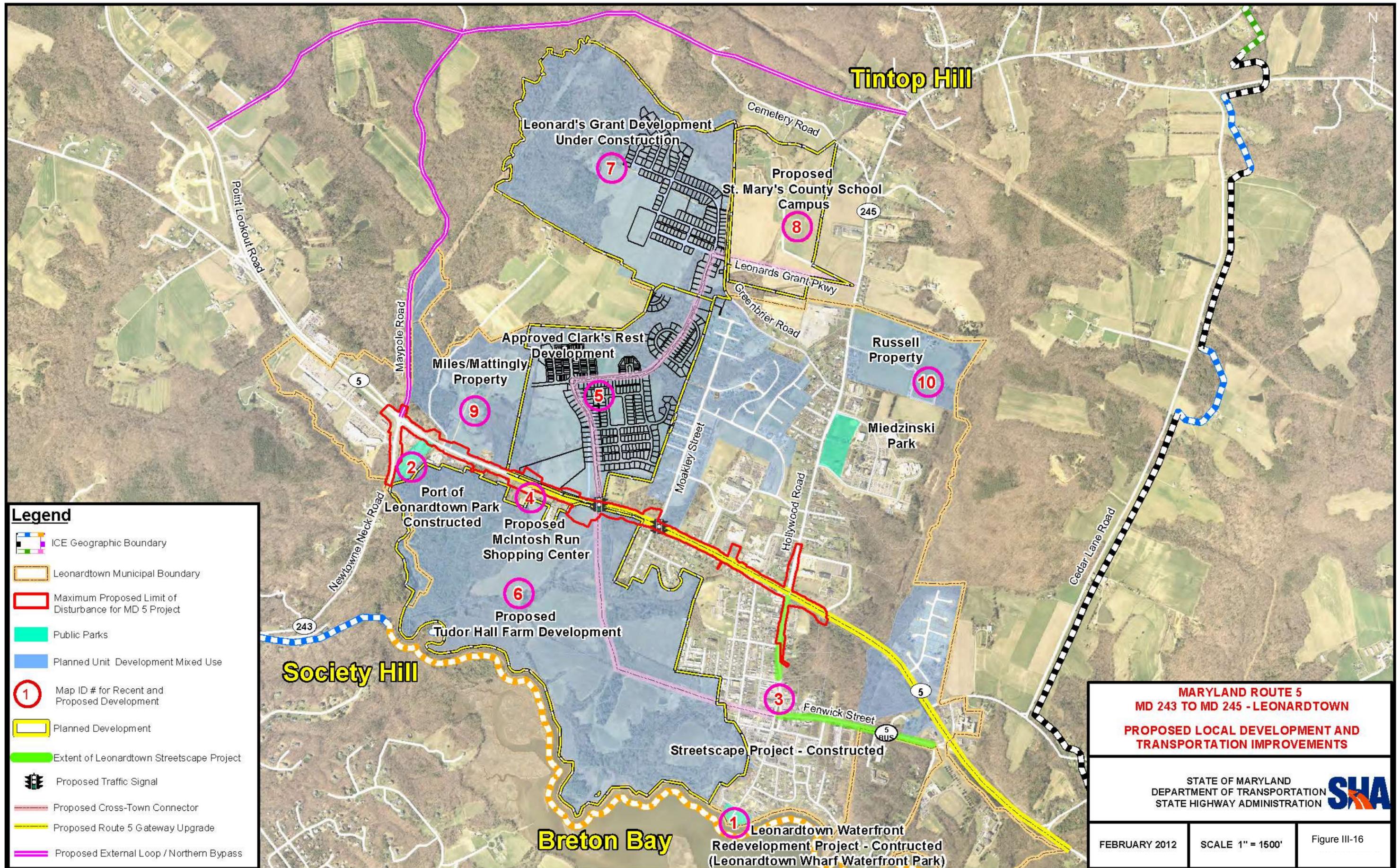
**ST. MARY'S COUNTY
2030 LAND USE CONCEPTS**

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION



FEBRUARY 2012 SCALE 1" = 2500' Figure III-15

Data Source: St. Mary's County 2030 Concept Land Use File (Concept Use Attribute)



- Legend**
-  ICE Geographic Boundary
 -  Leonardtown Municipal Boundary
 -  Maximum Proposed Limit of Disturbance for MD 5 Project
 -  Public Parks
 -  Planned Unit Development Mixed Use
 -  Map ID # for Recent and Proposed Development
 -  Planned Development
 -  Extent of Leonardtown Streetscape Project
 -  Proposed Traffic Signal
 -  Proposed Cross-Town Connector
 -  Proposed Route 5 Gateway Upgrade
 -  Proposed External Loop / Northern Bypass

**MARYLAND ROUTE 5
MD 243 TO MD 245 - LEONARDTOWN
PROPOSED LOCAL DEVELOPMENT AND
TRANSPORTATION IMPROVEMENTS**

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

SHA

| | | |
|---------------|------------------|---------------|
| FEBRUARY 2012 | SCALE 1" = 1500' | Figure III-16 |
|---------------|------------------|---------------|

Table III-14: Recent and Proposed Local Development In MD 5 ICE Geographic Boundary

| MAP ID # | PROJECT NAME | PROJECT DESCRIPTION | SIZE | RESIDENTIAL UNITS/ COMMERCIAL AREA | POTENTIAL IMPACTS | PROJECT LOCATION (SEE FIGURE ES-7) |
|----------|--|--|------------------|---|---|---|
| 1 | Leonardtown Wharf Waterfront Park | Part of a state "Priority Place" redevelopment project for offices, shops, a restaurant, loft apartments and a public park on Breton Bay to create a waterfront destination. Public park portion opened May 2008 and work for other parts will be planned as land is acquired. | 5.5 acres | None – public park | Not included in the quantification of cumulative impacts because of the relatively small project area and because it involved redevelopment of disturbed areas. | Southern end of Leonardtown at Breton Bay |
| 2 | Port of Leonardtown Community Center Project | Municipal park (cooperative effort between the town and the Southern Maryland Wine Growers Cooperative) includes passive recreation facilities and a launch point for a nearly 3-mile canoe/kayak trail that extends to the new Leonardtown Wharf Waterfront Park. Winery opened and other public park improvements on-going. | 3 acres | None – public park | Not included in the quantification of cumulative impacts because of the relatively small project area and because it involved redevelopment of disturbed areas. | MD 5/MD 243 intersection in the vicinity of McIntosh Run (site of former State Roads Commission Garage complex) |
| 3 | Leonardtown Streetscape – Completed 2011 | MD 5 Business (Washington and Fenwick Streets) streetscape improvements including drainage, sidewalks, lighting, and aesthetics. | 1 mile | None – existing street right-of-way | Not included in the quantification of cumulative impacts because of the relatively small project area and because it involved redevelopment of disturbed areas. | MD 5 Bus from MD 245 intersection to where roadway intersects MD 5 again near St. Mary's Ryken High School |
| 4 | McIntosh Run Shopping Center - Proposed | Mixed use redevelopment project with complex consisting of a small hotel, restaurant, office suites, and retail shops. | 6 acres | 47,000 square feet | Not included in the quantification of cumulative impacts because of the relatively small project area and because it involves redevelopment of disturbed areas. | Midway between Abell Street and MD 243, on west side of MD 5 (redevelopment of the Pennies Bar and ball field site) |
| 5 | Clark's Rest (Clark Farm) – Approved but currently no sewer capacity allocated | Mixed use project. Town requested developer to locate proposed MD 5 entrance opposite Tudor Hall Farm project's proposed entrance and a signal is anticipated. Town also required project to provide a connection to Leonard's Grant development. Open space and protection of sensitive resources proposed for 80 acres. | 178 acres | 300 residential units and 15 to 20 acres commercial/business park | See Table III-16. | East side of MD 5, extending from just west of Moakley Street to a point midway between Moakley Street and MD 243 |
| 6 | Tudor Hall Farm – No current concept plan is place | Mixed use project. A main spine road would be provided from MD 5 to the downtown. Town has required the spinal road to be located opposite the proposed MD 5 entrance to Clark's Rest project and a signal is anticipated. Various development proposals have been submitted for consideration over the past 10 years. At this time, the project is on hold due to current economic concerns, market feasibility, and submission of proposed concepts that fail to mesh with town objectives for portions of the site that are owned by the town and committed to recreation or open space uses. | 390 to 404 acres | 400 to 500 residential units and 100,000 to 150,000 square feet of commercial retail or office space. Proposed uses have also included a golf course community, conference center/hotel facilities, waterfront recreation/trail uses, and marina/public boardwalk along Breton Bay. | See Table III-16.. | West side of MD 5 midway between Abell Street and MD 243 |
| 7 | Leonard's Grant – Final 4th phase under construction | Residential project. Primary access is off of MD 245 with a connecting road to MD 5 through the proposed Clark's Rest development. Village greens and preserved wooded areas that contain sensitive environmental features, represent approximately 40% of the site. | 248 acres | 325 single-family units | See Table III-16. | East side of MD 5 |

| MAP ID # | PROJECT NAME | PROJECT DESCRIPTION | SIZE | RESIDENTIAL UNITS/ COMMERCIAL AREA | POTENTIAL IMPACTS | PROJECT LOCATION (SEE FIGURE ES-7) |
|----------|--|---|---|--|--|---|
| 8 | St. Mary's County Public School Hayden Property - Proposed | St. Mary's County Campus project to include educational facilities to be shared with the Department of Recreation and Parks. Town is proceeding with annexation process and changing the parcel's water service category from W-6D (service in 6 to 10 years, developer financed) to W-3D (service in 3 to 5 years, developer financed). | 95 acres of a 180-acre parcel | 646-capacity elementary school, 700-capacity middle school, library, and community use space | See Table III-16. | West of MD 245 |
| 9 | Miles/Mattingly Farm Site | Parcel identified by the town as an area with potential for future development. | 172 acres | No concept plans in process. | Not included in the quantification of cumulative impacts because it has only recently been identified as an opportunity for development and no concept plan exists. | North side of MD 5 adjacent to McIntosh Run – area of multiple sensitive natural resources |
| 10 | Russell Farm | Parcel identified by the town as an area with potential for future development. | 61.5 acres | No concept plans in process. | Not included in the quantification of cumulative impacts because it has only recently been identified as an opportunity for development and no concept plan exists. | Eastside of MD 245, north of Government Center Complex |
| -- | Cross-Town Connector | Proposed loop road system that would be completed as part of the development of Clark's Rest and Tudor Hall Farm sites. Town officials believe this connection would aid circulation and remove some local traffic from MD 5. (Note - state environmental agencies have previously prohibited development in the western corner of Tudor Hall Farms where this connection is proposed.) | --- | --- | Not assessed as a separate project in the ICE analysis, since impacts associated with its development are already accounted for in the major private land development projects included in the analysis. | From downtown area via an extension of Fenwick Street to a new intersection at MD 5 (entrances of Clark Rest and Tudor Hall Farm developments when the sites are developed). |
| -- | External Loop/Northern Bypass | Leonardtown 2010 Comprehensive Plan notes that past plans included a loop road proposal extending across the north side of the town to create a northern bypass to MD 5. 2010 plan states that the external loop road cannot be justified at this time but proposes that a corridor for a future road be designated for when the land through which the corridor would pass is developed. Developers could be required to build sections as part of their projects with some links constructed by the county or town if these lands are annexed in the future. Previous county transportation plan included a proposal for a Leonardtown bypass similar to the proposed external loop (also referred to as a "ring road"); however, county's current plan (2010) no longer supports a version of the external loop. | 28 acres (The limit of disturbance is based on a 60-foot cross-section) | --- | See Table III-16. | External loop road would begin at an upgraded Maypole Road and tie into Cemetery Road before intersecting with MD 245. It would continue to meet an improved Cedar Lane to enhance access to the employment center developing in the California-Hollywood area. |
| -- | Route 5 Gateway Upgrade | Proposed in Leonardtown's current comprehensive/ transportation plan and is described as an upgrade to MD 5 to a 4-lane boulevard with raised planted median and turn lanes. | Unknown | --- | Not assessed as a separate project because it includes the entire limits of the current MD 5 project and is not included on the county or state plans. | The extent of this upgrade includes the MD 5 project limits and continues south past the St. Mary's Ryken High School. |

(2) **Natural Resources**

Breton Bay does not currently support the state-designated uses designated for it in state regulation (water contact recreation and shellfish harvesting) due to problems with fecal coliform bacteria, nutrients and sediment. The bay is currently on the 303(d) list for nutrients and excess nutrient loads have contributed to algae blooms and low dissolved oxygen in upper Breton Bay in late summer. However, nutrient loads and yields within the Breton Bay watershed are generally low compared to other watersheds around the state. The northern and western sections of the ICE Boundary are within the McIntosh Run watershed which is considered one of the most ecologically intact watersheds remaining in Maryland. It is also the largest tributary stream to Breton Bay. Water quality sampling conducted by MD DNR indicates that the aquatic resources in McIntosh Run are of reputable quality and supporting a variety of macroinvertebrate, amphibian, and fish species. Select habitat in the McIntosh Run's watershed, primarily areas upstream of the proposed MD 5 project area, also supports significant populations of the state and federally endangered dwarf wedge mussel. The remaining portion of the ICE Boundary is primarily within the Town Run watershed and direct (shoreline) drainage areas of the bay. (Very small eastern sections of the ICE Boundary also extend into the Glebe Run watershed.) Both McIntosh Run and Town Run are classified as Use 1 streams for the protection of water contact recreation and protection of non-tidal warm water aquatic life and are not considered impaired. Water quality sampling conducted as part of the MD 5 project studies resulted in findings that indicate good water quality for the project area streams (MD 5 Natural Environmental Technical Report, 2011).

Steps to improve water quality in the bay are underway. The Leonardtown Wastewater Treatment Plant, which discharges to Town Run about 5.0 river miles from the mouth, is the only permitted surface water discharge contributing nutrients to Breton Bay. The town is planning for a future upgrade of the plant using Enhanced Nutrient Removal (ENR) technology. However, since the town is also proposing to expand the plant's capacity, sustaining state established nutrient caps will present challenges. Even with plans to improve treatment using ENR technology, the town will need to work with state agencies to explore nutrient trading, land application, wastewater reuse or other options to exceed its Tributary Strategy point source cap. The town and the county are currently cooperating in reviewing potential sites and identifying funding sources for land-based application of treated water from the treatment facility.

Erosion has also been identified as a problem for various streams draining into the bay. Breton Bay's soil erodibility has been determined to be moderate, although its ranking among all watersheds in the state has been fairly high. During the development of the Breton Bay Watershed Restoration Action Strategy (July 2003) and based on the findings from The Maryland DNR Stream Corridor Assessment (January 2003), multiple problem areas have been identified by the agency as Priority Implementation Areas in need of restoration/stabilization and wetland and stream restoration/stabilization activities have been proposed.

3. Historic Properties

Background research was conducted of the pertinent structure inventories and survey reports maintained by the Maryland Historical Trust (MHT). The information revealed that there are 13 historic properties in the ICE area that are either listed or eligible for listing on the National Register of Historic Places as listed in Table III-15. As illustrated on Figure III-18, most of the properties are within the municipal boundaries of Leonardtown, though there is no defined historic district in the town limits. While the local officials promote the historic resources within the town, there are no special ordinance requirements in place for historic preservation.

Table III-15: Historic Properties Within the ICE Geographic Boundary

| MAP ID # | HISTORIC PROPERTY NAME | NATIONAL REGISTER STATUS | MARYLAND HISTORIC INVENTORY ID |
|-----------------|--|---------------------------------|---------------------------------------|
| 1 | Tudor Hall America Felix Secundus | Listed | NR-160 |
| 2 | Buena Vista | Listed | NR-1202 |
| 3 | Abell house (Jager House) | Listed | NR-1373 |
| 4 | St. Peter's Episcopal Chapel | Eligible | SM-275 |
| 5 | Eldon (Wentworth House, Part of Darley) | Eligible | SM-338 |
| 6 | St. Mary's Academy (Ford's Enclosure, Rose Hill) | Eligible | SM-422 |
| 7 | Longmore's Subdivision - Lot #1 | Eligible | SM-552 |
| 8 | Sterling House (Ford House) | Eligible | SM-343 |
| 9 | Union Hotel (Fenwick Hotel, Hotel Lawrence) | Eligible | SM-545 |
| 10 | Ellenborough | Eligible | SM-68 |

Table III-15:(continued)

| MAP ID # | HISTORIC PROPERTY NAME | NATIONAL REGISTER STATUS | MARYLAND HISTORIC INVENTORY ID |
|-----------------|-------------------------------------|---------------------------------|---------------------------------------|
| 11 | Drury-Saunders House | Eligible | SM-540 |
| 12 | Gough Farm | Eligible | SM-331 |
| 13 | Old State Highway Authority Garages | Eligible | SM-883 |

4. Analysis

This section summarizes the direct, indirect, and cumulative impacts of the proposed MD 5 project for various resources. The analysis used the MD 5 “Maximum Proposed Limit of Disturbance” to consider the worst case scenario for implementing the project. Development plans in the corridor have been on-going even without any major road or intersection improvements in-place. Because of the designation of the Leonardtown area as a state PFA and county Development District, various institutional and economic incentives are in-place to focus residential and commercial development within the incorporated limits of Leonardtown. The construction of any of the proposed transportation improvement alternatives will accommodate the on-going and planned land development. However, none of the on-going or planned development projects by others are dependent on the completion of the proposed MD 5 project improvements. All planned projects have existing access to MD 5 or other connecting roads in the network.

Since the MD 5 transportation improvements will maintain existing property access and are not increasing capacity, none of the project alternatives will cause growth inducing effects nor other effects related to induced changes in the current and planned pattern of land use, population density or growth rate and related effects on the environment in the corridor or region. The pattern of land development and growth in the region and in the corridor is guided by the planning and growth management initiatives undertaken by the town, county, and state and not by the proposed improvements to the existing MD 5 corridor. Given the large volume of on-going and planned development within the ICE geographic boundary and within the ICE time frame, cumulative effects by others, with minimal project contribution, on natural resources, and

cultural resources to a lesser degree are expected. Table III-16 is a summary of the potential direct and cumulative impacts associated with the proposed MD 5 project and the large land development projects. Figures III-17 through III-20 illustrates the various resources assessed as part of the ICE analysis. The limits of the on-going and planned land development activities are also delineated along with the “Maximum Proposed Limit of Disturbance” associated with the MD 5 project.

Two sites listed in Table III-14 and depicted on Figure III-16, the Miles/Mattingly Farm (172 acres) and the Russell Farm (61.5 acres), are sites identified as having future opportunities for growth. Unlike the other land development actions discussed, no development concepts have been initiated for these sites, therefore they were not included in the ICE Analysis as reasonably foreseeable actions. The sites are identified on the appropriate maps for reference only. In addition, for the purposes of the ICE analysis, the Port of Leonardtown project, the Leonardtown Wharf Water Front Park project, and the proposed McIntosh Run Shopping Center project (to redevelop 6 acres of the Pennies Bar and ball field site for commercial use on the southwest side of MD 5) were not included in the cumulative impacts assessments. These projects are not only small in comparison to the MD 5 project and other on-going and planned land development projects but they are also all redevelopment projects of areas that have been previously disturbed. There would be no anticipated adverse impacts to resources of concern associated with these redevelopment projects.

Both the Leonardtown Comprehensive Plan (2010) and St. Mary’s County Transportation Plan (2006) discuss multiple road improvement projects in the study area as depicted on Figure III-16. These include proposals for an internal loop road that would be a “cross-town connector” completed as part of the construction of development plans for Clark’s Rest and the Tudor Hall Farm sites. This loop would connect the downtown area via an extension of Fenwick Street to a new intersection at MD 5, where the entrances of the Clark Farm and Tudor Hall Farm developments would be aligned when these sites are developed. This transportation project was not considered as a separate project for the ICE analysis but rather it is assumed that the impacts associated with the associated large land developments account for this transportation project’s impacts. The town’s current plan notes that past plans also included a loop road proposal that

would extend across the north side of the town to create a northern bypass to MD 5. This external loop road would begin at an upgraded Maypole Road and tie into Cemetery Road before intersecting with MD 245. It would continue to meet an improved Cedar Lane to enhance access to the employment center developing in the California- Hollywood area. The town's plan states that the external loop road cannot be justified at this time but proposes that a corridor for a future road be designated when the land through which the corridor would pass is developed. Developers could then be required to build sections as part of their construction with some links constructed by the county or town if these lands are annexed in the future. Previous county transportation plans included a proposal for a Leonardtown bypass similar to the proposed external loop (also referred to as a "ring road"); however, the county's current plan no longer supports a version of the external loop. The external loop proposal is not on the state's Transportation Improvement Program and the planning process has not been initiated. However, given that the town has delineated a corridor for the Proposed External Loop/Northern Bypass, its impacts are included as the impacts associated with the "Roadway Improvement Projects".

Table III-16: Summary of Direct and Cumulative Impacts

| AFFECTED FEATURES | DIRECT IMPACTS | | | | | | TOTAL CUMULATIVE IMPACTS (% OF TOTAL ICE BOUNDARY) |
|--|---|---|--|---|---|---|---|
| | MD 5 PROJECT MAXIMUM PROPOSED LOD ⁽¹⁾ | CLARKS REST DEVELOPMENT (MAP ID #5) | LEONARD'S GRANT DEVELOPMENT (MAP ID #7) | TUDOR HALL FARM DEVELOPMENT (MAP ID #6) | HAYDEN PROPERTY DEVELOPMENT (MAP ID #8) | ROADWAY IMPROVEMENT PROJECTS ⁽²⁾ | |
| Limits of Disturbance | 52 acres ⁽³⁾ | 178 acres | 248 acres | 404 acres | 95 acres ⁽³⁾ | 28 acres | 1,005 acres ⁽⁴⁾ (10%) |
| Community | Displace 5 residential units and 11 businesses (19 acres) | Construct 300 residential units and 15 to 20 acres commercial/business park | Construct 325 residential units | Construct 400 to 500 residential units and 100,000 to 150,000 square feet of commercial retail/office space | Construct 646-capacity elementary school, 700-capacity middle school, and library | 0 | Net gain of over 1,000 residential units, breakeven for commercial/business area, 2 new schools, and new library. |
| Parks, recreational lands, preservation areas | 0.40 acres | Preserve 80 acres of Open Space/sensitive resource area | Preserve 100 acres as Village Greens/wooded area | Extend waterfront recreational trail system | Provide community use recreational space | 0 | Net gain of 180 acres preserved land, recreational space, and trail system |
| Historic Properties (#) | 6 | 0 | 0 | 0 | 0 | 0 | 6 (43%) |
| 100-Year Floodplains | 6 acres | 1 acres | 63 acres | 137 acres | 0 acres | 5 acre | 212 acres (26%) |
| Surface Water (linear feet) | 1, 758 LF | 1,987 LF | 5,553 LF | 23, 013 LF | 2, 158 LF | 460 LF | 34,929 LF (15%) |
| Wetlands | 1.2 acres | 9.0 acres | 61.0 acres | 79.0 acres | 3.2 acres | 3.5 acre | 156.9 acres (24%) |
| Non-Tidal Wetlands of Special State Concern | 0.4 acres | 1.5 acres | 2.2 acres | 19.0 acres | 0 acres | 1.9 acre | 25.1 acres (18%) |
| 100-foot Buffer for RTE Species ⁽⁵⁾ | 6.2 acres | 7.2 acres | 3.4 acres | 26.0 acres | 0 acres | 5.9 acre | 48.7 acres (46%) |
| Chesapeake Bay Critical Area | 0 acres | 0 acres | 0 acres | 222 acres | 0 acres | 0 acre | 222 acres (41%) |
| Potential FIDS Habitat | 1 acres | <0.5 acres | 66 acres | 85 acres | 0 acres | 11 acres | 163 acre s (4%) |
| Forestland | 8 acres | 54 acres | 64 acres | 109 acres | 3 acres | 15 acres | 254 acres (5%) |
| Agricultural Lands | 5.6 acres | 98 acres | 78 acres | 100 acres | 47 acres | 3.6 acres | 332.2 acres (15%) |
| Prime Farmland Soils | 10 acres | 53 acres | 19 acres | 110 acres | 9 acres | 5 acre | 206 acres (21%) |
| Soils of Statewide Importance | 17 acres | 64 acres | 77 acres | 109 acres | 48 acres | 13 acres | 328 acres (7%) |
| Green Infrastructure | | | | | | | |
| Hub/Corridor Forest | 3 acres | 54 acres | 64 acres | 109 acres | 0 acres | 18 acre | 248 acres (8%) |
| Hub/Corridor Marsh | 0 acres | 0 acres | 0 acres | 24 acres | 0 acres | 0 acre | 24 acres (77%) |

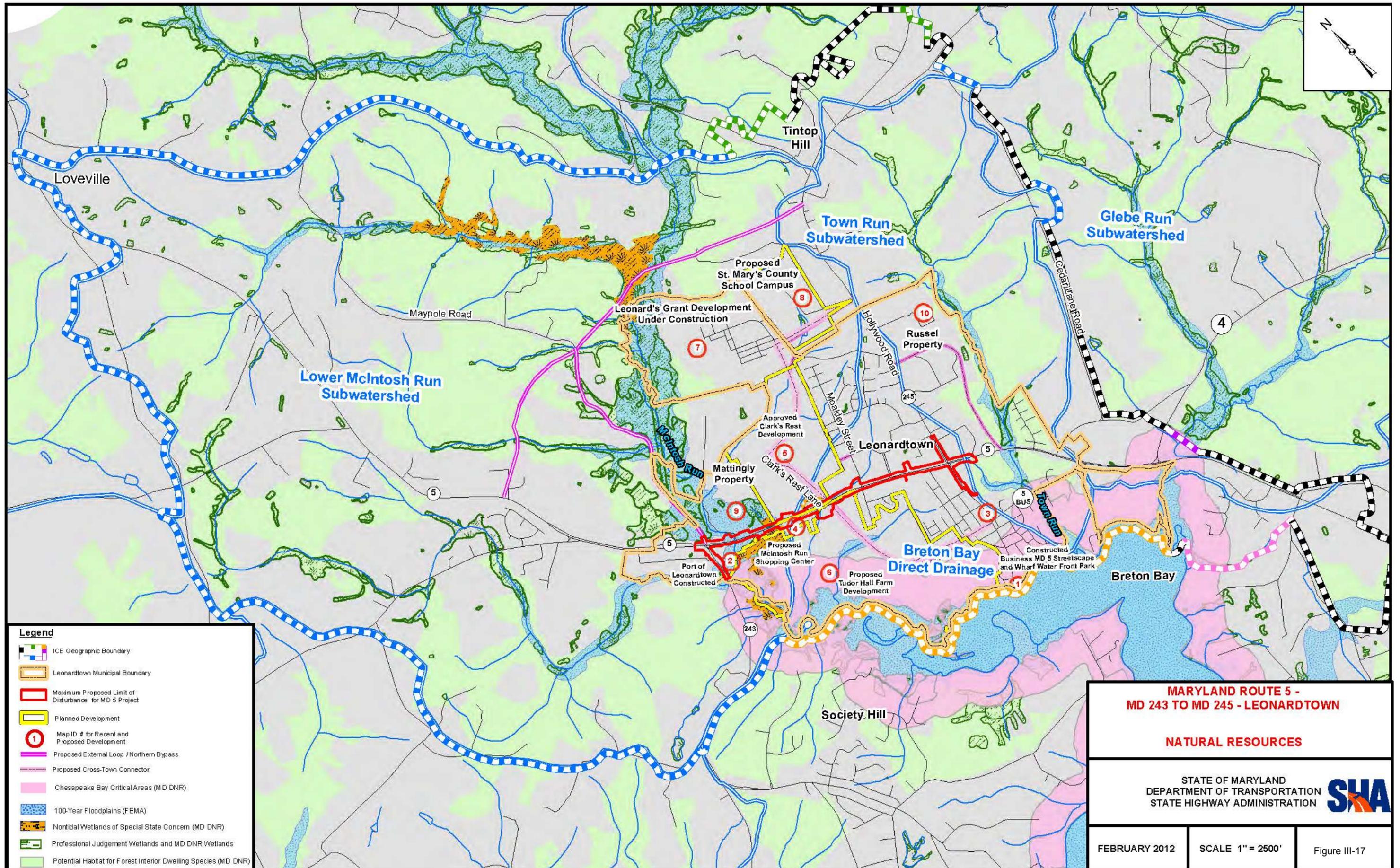
⁽¹⁾ Maximum Proposed LOD is composite of proposed limits of disturbances for each alternative and represents a worse case LOD estimate for MD 5 project direct impacts.

⁽²⁾ Includes impacts associated with proposed External Loop/Northern Bypass using a limit of disturbance based on a 60-foot cross-section.

⁽³⁾ Limits of Disturbance acreage for the MD 5 Project include existing roadway and acreage for Hayden Property include new school dirt only.

⁽⁴⁾ Total ICE Study Area = 10,010 acres

⁽⁵⁾ Estimates only include the buffer areas around wetlands that support Rare, Threatened, and Endangered (RTE) Species and do not include the wetland acreage.

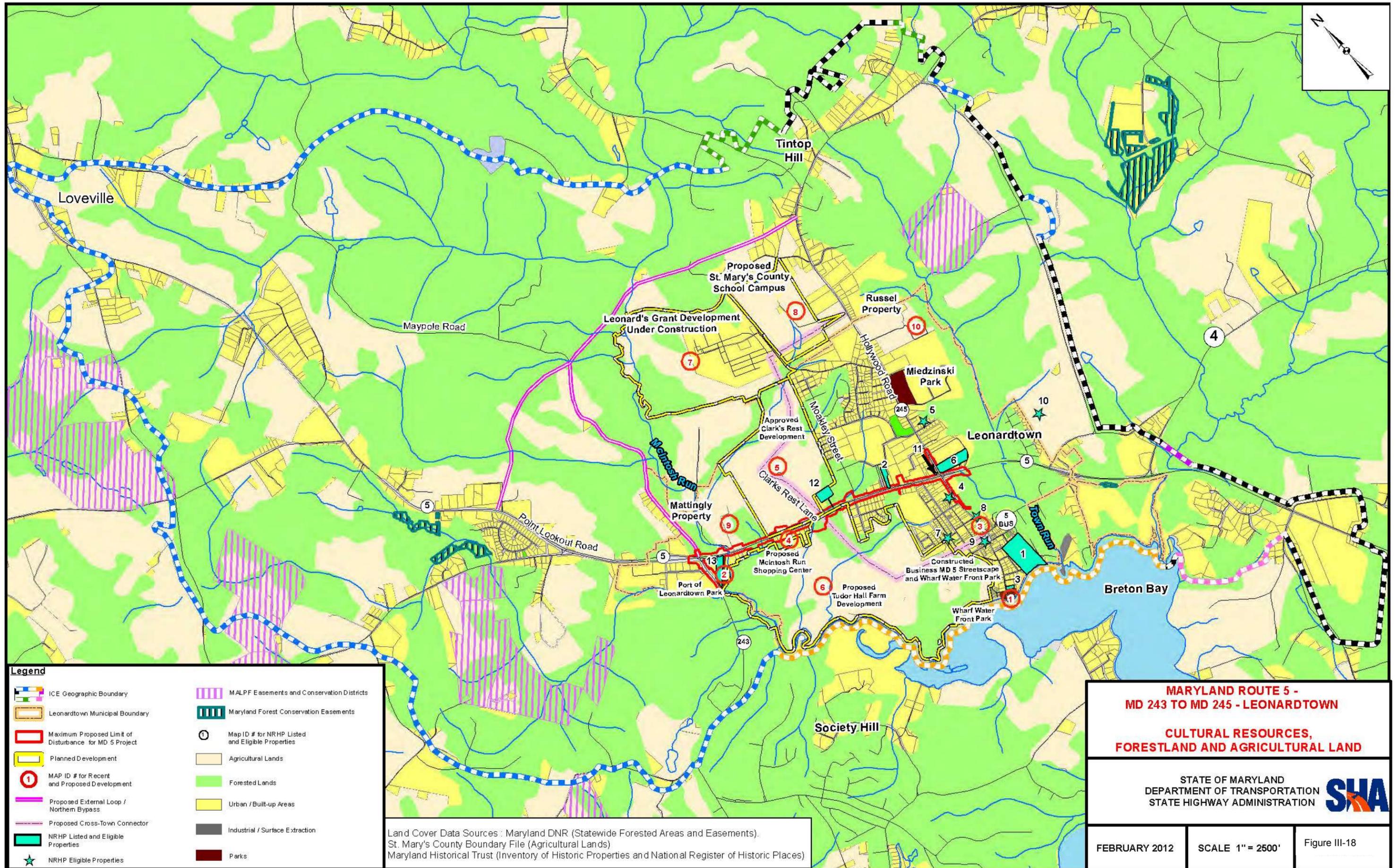


- Legend**
- ICE Geographic Boundary
 - Leonardtown Municipal Boundary
 - Maximum Proposed Limit of Disturbance for MD 5 Project
 - Planned Development
 - Map ID # for Recent and Proposed Development
 - Proposed External Loop / Northern Bypass
 - Proposed Cross-Town Connector
 - Chesapeake Bay Critical Areas (MD DNR)
 - 100-Year Floodplains (FEMA)
 - Nontidal Wetlands of Special State Concern (MD DNR)
 - Professional Judgement Wetlands and MD DNR Wetlands
 - Potential Habitat for Forest Interior Dwelling Species (MD DNR)

**MARYLAND ROUTE 5 -
MD 243 TO MD 245 - LEONARDTOWN**

NATURAL RESOURCES

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION



Legend

| | |
|--|--|
| ICE Geographic Boundary | MALPF Easements and Conservation Districts |
| Leonardtown Municipal Boundary | Maryland Forest Conservation Easements |
| Maximum Proposed Limit of Disturbance for MD 5 Project | Map ID # for NRHP Listed and Eligible Properties |
| Planned Development | Agricultural Lands |
| Map ID # for Recent and Proposed Development | Forested Lands |
| Proposed External Loop / Northern Bypass | Urban / Built-up Areas |
| Proposed Cross-Town Connector | Industrial / Surface Extraction |
| NRHP Listed and Eligible Properties | Parks |
| NRHP Eligible Properties | |

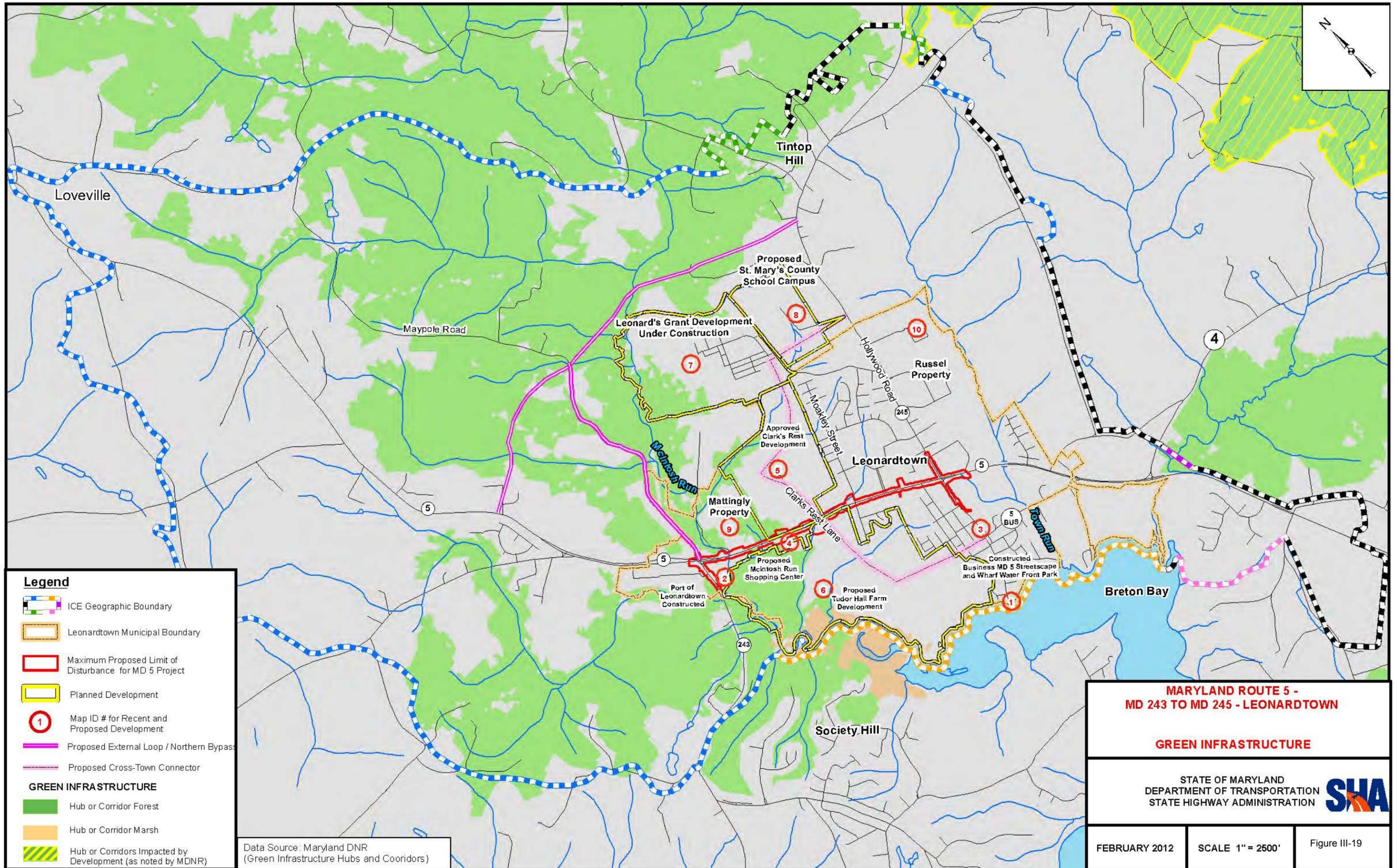
Land Cover Data Sources: Maryland DNR (Statewide Forested Areas and Easements).
 St. Mary's County Boundary File (Agricultural Lands)
 Maryland Historical Trust (Inventory of Historic Properties and National Register of Historic Places)

**MARYLAND ROUTE 5 -
 MD 243 TO MD 245 - LEONARDTOWN**

**CULTURAL RESOURCES,
 FORESTLAND AND AGRICULTURAL LAND**

STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION

| | | |
|---------------|------------------|---------------|
| FEBRUARY 2012 | SCALE 1" = 2500' | Figure III-18 |
|---------------|------------------|---------------|



Legend

-  ICE Geographic Boundary
-  Leonardtown Municipal Boundary
-  Maximum Proposed Limit of Disturbance for MD 5 Project
-  Planned Development
-  Map ID # for Recent and Proposed Development
-  Proposed External Loop / Northern Bypass
-  Proposed Cross-Town Connector

GREEN INFRASTRUCTURE

-  Hub or Corridor Forest
-  Hub or Corridor Marsh
-  Hub or Corridors Impacted by Development (as noted by MDNR)

Data Source: Maryland DNR
(Green Infrastructure Hubs and Corridors)

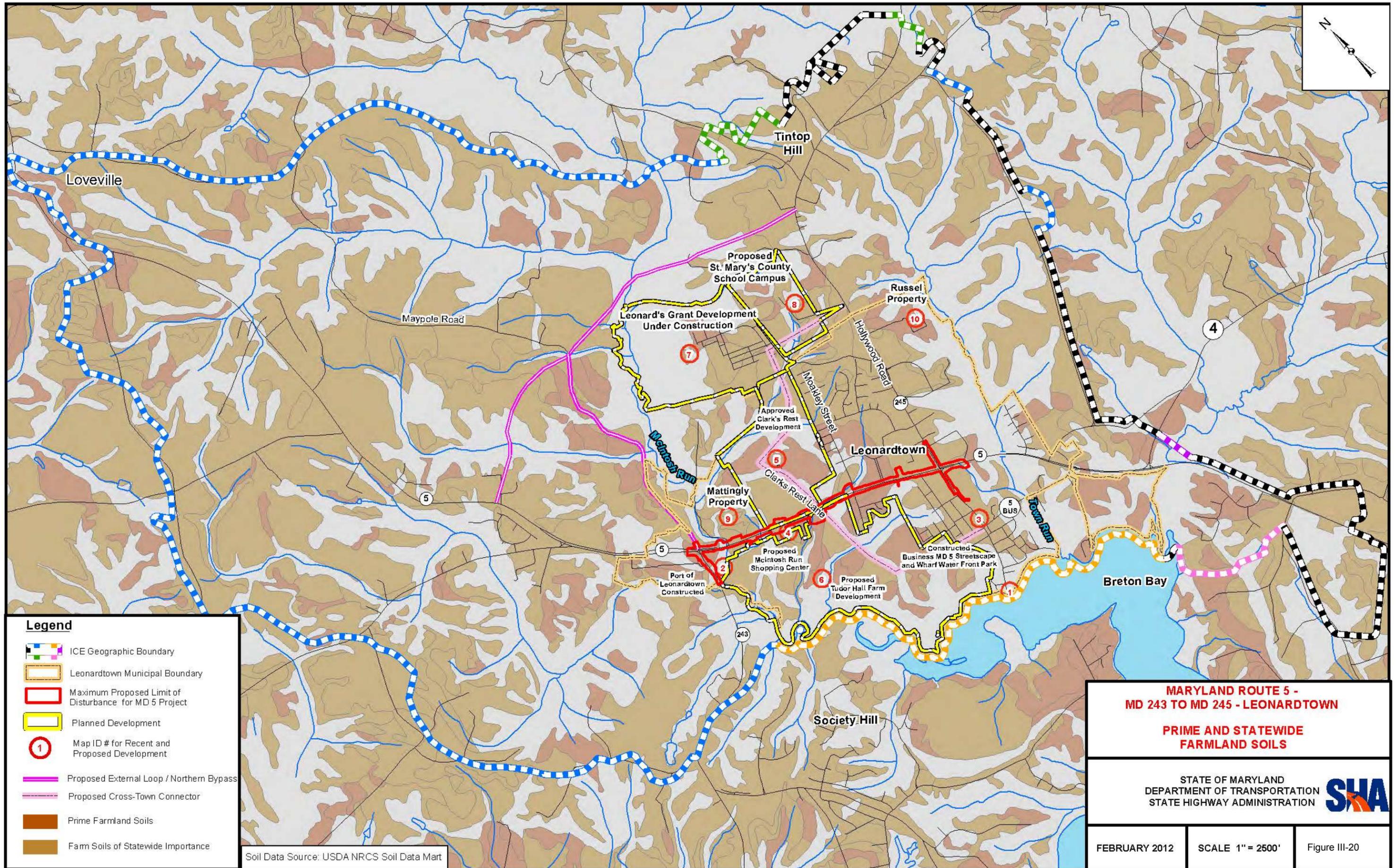
**MARYLAND ROUTE 5 -
MD 243 TO MD 245 - LEONARDTOWN**

GREEN INFRASTRUCTURE

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION



| | | |
|---------------|------------------|---------------|
| FEBRUARY 2012 | SCALE 1" = 2500' | Figure III-19 |
|---------------|------------------|---------------|



Legend

-  ICE Geographic Boundary
-  Leonardtown Municipal Boundary
-  Maximum Proposed Limit of Disturbance for MD 5 Project
-  Planned Development
-  Map ID # for Recent and Proposed Development
-  Proposed External Loop / Northern Bypass
-  Proposed Cross-Town Connector
-  Prime Farmland Soils
-  Farm Soils of Statewide Importance

Soil Data Source: USDA NRCS Soil Data Mart

**MARYLAND ROUTE 5 -
MD 243 TO MD 245 - LEONARDTOWN**

**PRIME AND STATEWIDE
FARMLAND SOILS**

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION



| | | |
|---------------|------------------|---------------|
| FEBRUARY 2012 | SCALE 1" = 2500' | Figure III-20 |
|---------------|------------------|---------------|

5. 100-Year Floodplains

The floodplains along the streams in the ICE area as depicted on Figure III-17 have experienced minimal direct encroachments. In addition, flooding events within the developed areas of Leonardtown and surrounding areas have been limited primarily to infrequent tropical storm and hurricane events with high waters in the area of the existing MD 5 bridge over McIntosh Run and other roadway crossings over streams. Consequently, the ICE area floodplains retain vital functions such as flood storage, pollutant attenuation, wildlife habitat, and recreational opportunities.

Direct and Indirect Effects

Figure III-17 and Table III-16 illustrate the location and extent of floodplain areas that would be potentially impacted by the MD 5 project and other planned land development actions. The maximum direct impact associated with the MD 5 improvements is estimated to be 6 acres in the vicinity of the McIntosh Run Bridge that would be replaced. Final design for the MD 5 project will include a hydrologic and hydraulic analysis for proposed structures crossing streams and encroaching into regulated floodplains. In addition, a waterway permit from the MDE will be required to address encroachments to the 100-year floodplain. As part of the permit application, the SHA will present the potential impacts for the 2-year, 10-year, and 100-year floods and demonstrate that flood levels upstream and downstream of proposed crossings and encroachments will not be adversely impacted.

Indirect impacts caused by any permanent encroachments into the floodplains associated with the construction of the MD 5 project will be offset by the construction of new stormwater management facilities, including stormwater basins designed to manage storm runoff volumes. The existing MD 5 roadway does not include stormwater management facilities, therefore the proposed stormwater management facilities will be designed to not only manage runoff from new additional impervious areas but also the runoff from existing roadway impervious areas that were previously not controlled.

Direct impacts associated with the planned land development projects include 63 acres associated with Leonard's Grant Development and 137 acres associated with the Tudor Hall Farm Development. These large impacts would be associated with encroachments into the forested floodplains along the east side of McIntosh Run. As currently designed and under development, Leonard's Grant Development includes approximately 100 acres of "village greens and preserved wooded areas" that encompass the wooded floodplain area of concern; therefore the potential impacts would be avoided. There is no current site development concept for the Tudor Hall Farm Development but when a site development is eventually developed, it is anticipated that the forested floodplain area of concern will be preserved and impacts avoided. These floodplains are also encompassed with the Chesapeake Bay Critical Area that would provide extra protection at the time the project site plans are developed and approved. Both of these development projects have existing access to the local roadway network and their development schedules and approvals are not connected to the proposed MD 5 improvements; therefore, their potential direct impacts would not contribute to indirect impacts associated with the MD 5 project.

Cumulative Effects

Cumulatively, there is the potential for 26% (212 acres) of the 823 acres of floodplain in the ICE geographic boundary to be encroached. The MD 5 floodplain impacts would make up 3% of the total cumulative impacts; whereas the impacts associated with the proposed Tudor Hall Farm Development would be 65% of the cumulative impacts to the floodplain area. As noted above, the MD 5 floodplain impacts would be minimized during the development of final design plans, particularly the structure design plans for a new bridge over McIntosh Run. The impacts associated with the Leonard's Gant Development are being avoided through preservation of sensitive areas and the impacts associated with Tudor Hall Farm Development are also expected to be avoided or minimized through careful site design and designation of areas to be preserved.

Floodplains are identified as a sensitive area needing protection in both the St. Mary's County Comprehensive Plan (2010) and the Leonardtown Comprehensive Plan (2010) as required by the

Economic Growth, Resource Protection, and Planning Act of 1992. Floodplains are shown on the Leonardtown Critical Areas Program maps and the county has included preservation of floodplains and a surrounding 50-foot buffer as a goal. As such, future development in floodplains is highly regulated through local, state, and federal laws and ordinances and it is anticipated the potential encroachments associated with the future land developments, including the Tudor Hall Farm Development will be avoided or minimized to eliminate any potential significant adverse impact to the floodplains.

6. Surface Waters and Wetlands

Much of the natural water resources in the ICE geographic boundary are of good quality and the total acreage of wetland resources in the county has changed little since 1990 and makes up 1% of the land cover. In particular, McIntosh Run and Town Run in the MD 5 project area are currently not considered to be impaired streams. Efforts are underway to continue to protect the waterways and wetlands of the region given the more recent higher levels of land development activities and to slow down if not stop the encroachments associated with the development on these areas, particularly those areas outside of the state-defined PFAs and county-defined development districts. Erosion has also been identified as a problem for various streams draining into Breton Bay, including streams within the MD 5 ICE boundary. Two areas of concern have been identified by MD DNR within the ICE boundary. One includes Town Run where a significant sandbar has formed at the mouth of stream as it enters Breton Bay. This sandbar and channel erosion along the stream's entire length has been observed as growing at an accelerated rate. The other area of concern is an unnamed tributary to McIntosh Run that flows east to west and enters the lower portion of the stream near MD 5 immediately upstream of the project area. This tributary extends through the northern section of the town and forms part of the town's northeast border. The tributary was identified by MD DNR as experiencing severe or very severe channel erosion in three locations and has had several large slope failures along the stream valley.

Direct and Indirect Effects

Figure III-16 and Table III-16 illustrate the location and extent of streams and wetland areas that would be potentially impacted by the MD 5 project and other planned land development actions. The maximum impacts associated with the MD 5 improvements are estimated to be 1,758 linear feet of stream encroachments and 1.2 acres of wetlands disturbances, including 0.4 acres of Non-Tidal Wetlands of Special State Concern (WSSC). A waterway permit from the MDE will be required to address encroachments associated with the McIntosh Run crossing and culvert extensions, in addition to encroachments associated with a wider typical section at various locations. As part of the permit application, the SHA will demonstrate the avoidance and minimization efforts for protected waterways and wetlands and will develop a stream and wetland mitigation plan for unavoidable impacts.

All of the perennial and intermittent stream impacts associated with the MD 5 project would occur within McIntosh Run watershed. As previously noted the existing streams are good quality even though the existing MD 5 roadway does not include stormwater management facilities. New stormwater management facilities, including stormwater basins and grass swales designed to manage storm runoff volumes and quality, are proposed as part of the MD 5 project and they will be designed to not only manage runoff from new additional impervious areas but also the runoff from existing roadway impervious areas that were previously not controlled. As proposed, the indirect impact on streams and wetlands associated with the MD 5 project will be positive because the new stormwater management facilities will provide water quality treatment that does not currently exist.

Direct impacts associated with the planned land development projects include a range of stream encroachments from 1,987 linear feet associated with the Clarks Rest Development to 23,013 linear feet associated with the Tudor Hal Farm Development. Potential wetland impacts are particularly large for wetlands and include 61 acres of wetlands (includes 2.2 acres of WSSC) associated with Leonard's Grant Development and 79 acres (includes 10 acres of WSSC) associated with the Tudor Hall Farm Development. These large impacts would be associated

with encroachments into the forested areas along the east side of McIntosh Run in addition to wetlands in the direct drainage area to the bay within the Tudor Hall Farm site. As currently designed and under development, Leonard's Grant Development includes approximately 100 acres of "village greens and preserved wooded areas" that encompass the wetland areas of concern; therefore the potential impacts would be avoided. There is no current site development concept for the Tudor Hall Farm Development but when a site development is eventually developed, it is anticipated that the wetland areas of concern will be preserved and impacts avoided. These wetlands are also encompassed with the Chesapeake Bay Critical Area that would provide extra protection at the time the project site plans are developed and approved. Also, MDE waterway permits will be required for any potential stream crossings and wetland encroachments. Both of these development projects have existing access to the local roadway network and their development schedules and approvals are not connected to the proposed MD 5 improvements; therefore, their potential direct impacts would not contribute to indirect impacts associated with the MD 5 project.

Cumulative Effects

Cumulatively, there is the potential for 15% of the 239,372 linear feet of surface waters (streams), 24% of the 661 acres of wetlands, and 18% of the 142 acres of WSSC in the ICE geographic boundary to be encroached. The impacts of the proposed MD 5 improvements would make up 5% (1,758 linear feet) of the cumulative impacts to streams, less than 1 % (1.2 acres) of the cumulative impacts to wetlands, and 2% (0.4 acres) of the cumulative impacts to wetlands identified as WSSC. The impacts associated with the proposed Tudor Hall Farm Development would make up most of the cumulative impacts including 66% of the cumulative impacts to streams, 50% of the cumulative impacts to wetlands, and 76% of the cumulative impact to WSSC. The Leonard's Grant Development appears to also have the potential to impact 9% of the wetlands (39% of the cumulative impacts to wetlands); however, as previously noted, the development as currently being constructed preserves approximately 100 acres of the site including the areas with "sensitive environmental features" such as the wetlands areas along McIntosh Run. The MD 5 floodplain impacts would be minimized during the development of final design plans, particularly the structure design plans for a new bridge over McIntosh Run.

The impacts associated with the Tudor Hall Farm Development are also expected to be avoided or minimized through careful site design and designation of areas to be preserved. All potential impacts to water resources are associated with the McIntosh Run watershed. There are no active or planned improvements to any stream crossings or culverts associated with Town Run.

During the development of the Breton Bay Watershed Restoration Action Strategy (July 2003) and based on public input and the findings from The Maryland DNR Stream Corridor Assessment (January 2003), two erosion problem areas (the entire stretch of Town Run and the unnamed tributary to McIntosh Run just upstream of the MD 5 project area) were identified as Priority Implementation Areas in need of restoration/stabilization. Both of these streams were identified as candidates for restoration/stabilization activities to help reduce the sediment load to Breton Bay. While there are other locations in the Breton Bay watershed experiencing channel erosion, these two streams of concern are located in areas targeted for future growth and land development (i.e., the Leonardtown Development District and PFAs) that could result in increases in stormwater runoff, and this runoff may exacerbate current channel erosion. In order to protect the mainstem of McIntosh Run, MD DNR proposes wetland and stream restoration/stabilization activities in the subwatershed.

The proposed new developments in the vicinity of the erosion areas of concern include the Leonard's Grant Development under construction, the approved Clark's Rest Development, and the proposed St. Mary's County School Complex at the Hayden Property. There are no major planned or approved land development projects in the Town Run portion of the MD 5 watershed area; however it is anticipated that areas in the Town Run watershed will be targeted for development sometime in the future given its proximity to MD 245 and its location within the Leonardtown PFA and Development District. Much of the land development that has occurred in this subwatershed predates state stormwater management requirements. Stream restoration/stabilization activities along Town Run and stormwater retrofit activities (including the Government Center) in the subwatershed are proposed by MD DNR to minimize current and future impacts on Breton Bay.

Leonardtown's 2010 Comprehensive Plan notes that the "ultimate form of the Town of Leonardtown at build-out will likely be largely defined by McIntosh Run, Town Run and Breton Bay as its western, eastern and southern edges respectively." The plan's "Sensitive Areas Element" and "Water Resources Element" identify these water resources as sensitive areas with the intent to ensure that land adjacent to these bodies of water are buffered to minimize the impact of land development disturbances and activity on water quality and wildlife habitat. The town's goal is to preserve and enhance its streams and buffers in addition to improving stormwater management in developed areas, including the use of retrofit to address existing problem areas, and providing incentives for developers constructing new stormwater management structures to address areas that currently do not have such structures. In addition, to the local subdivision and land development ordinances, streams and wetlands are protected at both state and federal law and encroachments require permits that in turn require impacts to waterways to be avoided and minimized where possible and there are specific mitigation measures to be undertaken for unavoidable impacts to ensure the impacts will not be significant.

7. Wildlife Habitat

Much of the natural resources in the ICE geographic boundary are of good quality and efforts are underway to protect the forest lands, waterways, and wetlands of the region and slow down if not stop the encroachments of development on these areas, particularly those areas outside of the state-defined PFAs and county-defined development districts. Wildlife habitat has been assessed in the MD 5 ICE analysis by evaluating potential impacts to various features used to define wildlife habitat, particularly habitat used by state and federal threatened and endangered species. These features include: Rare, Threatened, and Endangered (RTE) Species Buffer areas; the Chesapeake Bay Critical Area; Forest Lands; and Habitat for Forest Interior Dwelling Species (FIDS). The RTE Species Buffer areas in the MD ICE boundary extend primarily throughout the entire Lower McIntosh Run subwatershed portion of the area, whereas the Chesapeake Bay Critical Area extends only along the southern portion where Leonardtown extends along the bay's shoreline. Forest land and the smaller areas of FIDS habitat extend along the less developed areas in the western portion of the Lower McIntosh Run subwatershed and the eastern portion of the Town Run subwatershed. Since the 1990's the wetlands areas in the county have

remained relatively unchanged, however, forested lands have reduced from 60% of the total land cover to 52%. Most of the lost in the ICE boundary area appears to have occurred within the state-defined PFAs and county-defined development districts, where development is focused to help preserve the more rural areas of the county and ICE area. However, only two small areas (making up 17 acres) have been identified in the ICE boundary as being preserved as forest conservation areas (see Figure III-20).

Direct and Indirect Effects

Figures III-17 and III-18, along with Table III-16, illustrate the location and extent of various resources associated with terrestrial wildlife habitat that would be potentially impacted by the MD 5 project and other planned land development actions. The maximum impacts associated with the MD 5 improvements are estimated to be 6.2 acres of the area that makes up the 100-foot buffer around wetlands that support Rare, Threatened, and Endangered (RTE) species, 1 acre of forest land designated as potential habitat for Forest Interior Dwelling Species (FIDS), and 8 acres of general forestland. The MD 5 project will be required to comply with the Maryland Reforestation Law. This will require the replacement of forest cleared for the project's construction, which is generally accomplished on an acre-for-acre, one to one ratio on public lands. If replacement lands are not readily available, the SHA may consider contributing to the Reforestation Fund that is used to plant replacement trees on public lands such as schools and parks.

Since the proposed improvements are for an existing facility on existing alignment in a town, there would be minimal fragmentation or destruction of large forested tracts, FIDS, and terrestrial wildlife. The nature of the improvements would only impact the outer edges of the existing FIDS habitat areas, most of which are currently impacted by the existing roadway and other infrastructure. Given that the affected wildlife habitat exists adjacent to the existing MD 5 roadway, the proposed improvements are not anticipated to induce fragmentation of wildlife habitat or increase animal collision encounters with vehicles, therefore indirect impacts to wildlife habitat are not expected.

Direct impacts associated with the planned land development projects include a range of greater impacts as listed in Table III-16. The Tudor Hall Farm development site, in particular, has the potential for multiple large adverse impacts, including 26 acres to the 100-foot buffer area for RTE species, 85 acres to potential FIDS habitat, and 109 acres to forestland. In addition, this site is the only proposed development site to encroach into the Chesapeake Bay Critical Area (222 acres). The Maryland Reforestation Law does not apply to private developers; however, given that large parts of the forested areas are along stream channels and include forested wetlands, impacts to the areas can be minimized through the preservation efforts undertaken for compliance with waterway permits provisions. Also, as currently designed and under development, Leonard's Grant Development and the Clarks Rest Development include approximately 100 acres of "village greens and preserved wooded areas" and 80 acres of "open space/sensitive resource area", respectively, that encompass the forested areas of concern; therefore the potential impacts to terrestrial wildlife habitat would be avoided or minimized. There is no current site development concept for the Tudor Hall Farm Development but when a site development is eventually developed, it is anticipated that the forested areas of concern will be preserved and impacts avoided. Large portions of these forestlands are encompassed by the Chesapeake Bay Critical Area that would provide extra protection at the time the project site plans are developed and approved. All three of these development projects have existing access to the local roadway network and their development schedules and approvals are not connected to the proposed MD 5 improvements; therefore, their potential direct impacts would not contribute to indirect impacts associated with the MD 5 project. Note, the proposed MD 5 improvements would have no direct impacts to the critical area; however, this resource was included in the analysis to determine if there would be potential indirect impacts associated with the MD 5 project since the Tudor Hall Farm site includes large portions of the critical area. As described, the development of the Tudor Hall Farm site would not be induced by the construction of the MD 5 project and the designation of the critical area within the land development site is anticipated to be a means to protect natural resources when the site is developed.

Cumulative Effects

Cumulatively, there is the potential for 46% of the 105 acres of 100-foot buffer for RTE species and 41% of the 548 acres of Chesapeake Bay Critical Area in the ICE geographic boundary (includes existing developed areas in the older section of the Town of Leonardtown) to be encroached. The impacts of the proposed MD 5 improvements would make up 13% of the cumulative impacts to RTE buffer area. The MD 5 project would have no impact to the Critical Area. The impacts associated with the proposed Tudor Hall Farm Development impacts would potentially make up 53% of the cumulative impacts to the RTE buffer area and 100% of the cumulative impacts to the Critical Area.

Cumulatively, there is potential for 5% of the 5,478 acres of forest land and 4% of the 3,852 acres of FIDS habitat to be impacted in the ICE geographic boundary. The impacts of the proposed MD 5 improvements would make up 3% of the cumulative impacts to forest land and less than 1% of the cumulative impacts to FIDS habitat. The impacts associated with the proposed Tudor Hall Farm Development impacts would potentially make up 43% of the cumulative impacts to the forest land and 52% of the cumulative impacts to FIDS habitat. The impacts associated with the Leonard's Grant Development appear to also have the potential to make up 25% of the cumulative impacts to forest land and 40% of the cumulative impacts to FIDS habitat; however, the development as currently being constructed preserves approximately 100 acres of the site including the areas with "sensitive environmental features" such as the forest lands and FIDS habitat areas along McIntosh Run. The impacts associated with the proposed Clarks Rest Development also has the potential to make up 21% of the cumulative impacts to forest land; however, the current plan includes the dedication of 80 acres of the 178-acre site to the town or committed to open space and protection to sensitive resources. This could include forested areas and the stream corridor along the tributary to McIntosh Run.

While the proposed land development is within the state-defined PFAs and county-defined development districts, where development is focused to help preserve the more rural areas of the county, habitats of threatened and endangered species are still identified as a sensitive area in the

Leonardtown Comprehensive Plan (2010) as required by the Economic Growth, Resource Protection, and Planning Act of 1992, and are shown on the Leonardtown Critical Areas Program maps. The habitat shown on the town's maps include wetland areas and FIDS habitat areas. As such, development in these areas is specifically regulated through the Leonardtown Critical Area Ordinances Provisions in addition to state and federal laws, including the MD Chesapeake Bay Critical Area Law and implementing regulations.

8. Green Infrastructure

MDNR has defined the large forested areas along McIntosh Run and its tributaries as part of Maryland's Green Infrastructure. The ICE geographic boundary includes areas identified as part of a designated green infrastructure "hub" (as opposed to a "corridor") which typically consists of large contiguous areas, separated by major roads and/or human land uses. The hub areas within the MD 5 ICE boundary contain large blocks of contiguous interior forest; important animal and plant habitats including rare, threatened, and endangered species locations; and a relatively pristine stream that supports freshwater mussels. The forested hub areas are primarily located in the Lower McIntosh Run watershed in the western portion of the ICE area and the marsh hub areas are primarily in the Breton Bay Direct Drainage area at the downstream end of McIntosh Run.

Direct and Indirect Effects

Figure III-19 and Table III-16 illustrate the location and extent of the Green Infrastructure areas that would be potentially impacted by the MD 5 project and other planned land development actions. The maximum impacts associated with the MD 5 improvements are estimated to be 3 acres to forest hub area. The MD 5 project will be required to comply with the Maryland Reforestation Law. This will require the replacement of forest cleared for the project's construction, which is generally accomplished on an acre-for-acre, one to one ratio on public lands. The project's forest mitigation plan can be consider reforesting areas contiguous to the existing hub, possibly in the vicinity of the new Port of Leonardtown Park.

Since the proposed improvements are for an existing facility on existing alignment in a town, there would be minimal fragmentation or destruction of areas identified as Green Infrastructure. The nature of the improvements would only impact the outer edges of the existing Green Infrastructure areas, which are currently impacted by the existing roadway. Given that the affected Green Infrastructure areas exist adjacent to the existing MD 5 roadway, the proposed improvements are not anticipated to induce additional impacts to these areas; therefore indirect impacts to the areas are not expected.

Direct impacts associated with the planned land development projects include a range of greater impacts as listed in Table III-16. The Tudor Hall Farm development site has the potential for impacts to 109 acres of forest hub and 24 acres of marsh hub. The Clarks Rest Development and Leonard's Grant Development would potentially impact 54 acres and 64 acres, respectively, of forest hub area. The Maryland Reforestation Law does not apply to private developers; however, given that large parts of the forested areas are along stream channels and include forested wetlands, impacts to the areas can be minimized through the preservation efforts undertaken for compliance with waterway permits provisions. Also, as currently designed and under development, Leonard's Grant Development and the Clarks Rest Development include approximately 100 acres of "village greens and preserved wooded areas" and 80 acres of "open space/sensitive resource area", respectively, that encompass the forested areas of concern; therefore the potential impacts to the green infrastructure would be avoided or minimized. There is no current site development concept for the Tudor Hall Farm Development but when a site development is eventually developed, it is anticipated that the forested areas of concern will be preserved and impacts avoided. Large portions of these forestlands are encompassed by the Chesapeake Bay Critical Area that would provide extra protection at the time the project site plans are developed and approved. All three of these development projects have existing access to the local roadway network and their development schedules and approvals are not connected to the proposed MD 5 improvements; therefore, their potential direct impacts would not contribute to indirect impacts associated with the MD 5 project.

Cumulative Effects

Cumulatively, there is the potential for 8% of the forest component of the infrastructure and 77% of the marsh infrastructure in the ICE area to be encroached. The impacts associated with the MD 5 improvements would be 1% of the cumulative impacts to the forest component of the green infrastructure. The MD 5 project would have no impacts on the marsh component. The impacts associated with the proposed Tudor Hall Farm Development impacts would potentially be 40% of the cumulative impacts to the forest component and 100% of the cumulative impacts to the marsh component. The impacts associated with the Leonard's Grant Development appear to also have the potential to make up 26% of the cumulative impacts to the forest component; however, the development as currently being constructed preserves approximately 100 acres of the site including the areas with "sensitive environmental features" such as the forest lands along McIntosh Run. The impacts associated with the proposed Clarks Rest Development also has the potential to make up 22% of the cumulative impacts to the forest component; however, the current plan includes the dedication of 80 acres to the town or committed to open space and protection to sensitive resources. This could include forested areas and the stream corridor along the tributary to McIntosh Run.

St. Mary's County officials use the MDNR's Green Infrastructure assessment in their efforts to reach the county's natural resource protection goals. The assessment is cited in the county's zoning ordinance (Article 7, Section 71.8 4.d (8)) in reference to preserving forest interior dwelling species (FIDS) habitat. While these efforts by the county will protect the large portions of Green Infrastructure outside the Leonardtown PFA and Development District, the smaller areas along the western end of the town and its PFA and Development District within and immediately adjacent to the McIntosh Run channel, will be vulnerable.

9. Agricultural Land and Farmland Soils

Since the 1990's agricultural lands in the county have reduced from 31% of the total land cover to 24%. Most of the lost within the vicinity of the MD 5 ICE boundary appears to have occurred within the state-defined PFAs and county-defined development districts, where development is focused to help preserve the more rural areas of the county. Within the MD 5 ICE boundary,

much of the agricultural land in production is scattered between the forested areas of the western parts of the Lower McIntosh Run subwatershed and the eastern parts of the Town Run subwatershed which are outside of the state-defined PFAs and county-defined development districts. Large swaths of Farm Soils of Statewide Importance extend throughout the ICE boundary whereas Prime Farmland Soils extend primarily along the valley of the main stem of the McIntosh Run and in areas of Leonardtown already developed or slated for development.

St. Mary's County's 2010 comprehensive plan includes a Priority Preservation Areas (PPA) Element certified by the Maryland Department of Planning and the Maryland Agricultural Land Preservation Foundation (MALPF) to support the county's agricultural land preservation program and to retain eligibility for maximum state funding for the program. A PPA is an area defined where agriculture is to be the focus of long-term efforts and investment by the County to ensure the ongoing retention of agricultural land uses and profitability of agricultural activities. Large areas surrounding Leonardtown and its PFA and Development District within the MD 5 ICE boundary have been designated as part of the county's PPA lands and are the focus for permanent land preservation. In addition, approximately 331 acres of land within ICE boundary have been permanently preserved as MALPF agriculture easements and conservation districts.

The Leonardtown Comprehensive Plan (2010) views the preservation of agricultural land and the agriculture economy in the region as "a means of framing the town's identity within the larger rural County context" and supports the creation of a greenbelt to distinguish itself in the larger County landscape. The plan states that the greenbelt could be accomplished through the use of agricultural easements that restrict future development and changes in land use in areas outside of Leonardtown. However, the plan also notes that the town should work with the county cooperatively to assure that future lands placed under easement or the formation of Agricultural Preservation Districts that may lead to MALPF easements in the future, do not pre-empt opportunities for expansion of the town in targeted areas (such as the Leonardtown Development District and PFAs). This coordination is necessary to ensure sustainable town growth that would reduce pressures for growth in other less appropriate locations in the county that in turn would be detrimental to current county planning policy. The town's plan also states that the greenbelt

could be further supported by the town through open space development design in the outer edges of future areas that may be annexed to prevent development using dedication of open space, dedicated easements or other land conservation techniques.

Direct and Indirect Effects

Figures III-18 and III-20, along with Table III-16, illustrate the location and extent of the agricultural lands and farmland soils that would be potentially impacted by the MD 5 project and other planned land development actions. The maximum impacts to agricultural lands associated with the MD 5 improvements are estimated to be 5.6 acres. Impacts to prime farmland soils and soils of statewide importance would be 10 acres and 17 acres, respectively. The MD 5 project would only impact strips of agricultural lands and soils and would not adversely affect any active farm operation. Since the proposed improvements are for an existing facility on existing alignment in a town, there would be no fragmentation of farm fields and no adverse impact to the operations or viability of an active farm operation; therefore indirect impacts to farm land and farm operations are not expected.

Direct impacts associated with the planned land development projects include a range of greater impacts as listed in Table III-16. These large developments are sited on parcels within the town limits that were previously active farms surrounding the older portion of Leonardtown. The parcels no longer support viable farm operations. In addition, the two other sites depicted on the figures, the Miles/Mattingly Farm and the Russell Farm, were also once active farms and are now within the town limits and have been identified as areas providing opportunities for future growth within the designated Development District and PFA. The Tudor Hall Farm development site has the potential for impacts to 100 acres of land designated as agricultural land, 110 acres of prime agricultural soils, and 109 acres of soils of statewide importance. The Clarks Rest Development would result in impacts to 98 acres of agricultural lands, 53 acres of prime farmland soils, and 64 acres of soils of statewide importance. Both Leonard's Grant Development and the Hayden Property would impact slightly less acres, including 78 acres and 47 acres, respectively of agricultural lands. All four of these development projects have existing access to the local roadway network and their development schedules and approvals are not

connected to the proposed MD 5 improvements; therefore, their potential direct impacts would not contribute to indirect impacts associated with the MD 5 project.

Cumulative Effects

Cumulatively, there is the potential for 9% of the prime farmland soils and soils of statewide importance in the ICE geographic boundary to be encroached. The impacts associated with the MD 5 improvements would be 5% of the cumulative impact to these farmland soils. The impacts associated with the proposed Tudor Hall Farm Development, Clarks Rest Development, and Leonard's Grant Development would potentially be 41%, 22%, and 18%, respectively, of the cumulative impacts to farmland soils.

Since the proposed land development is within the state-defined PFAs and county-defined development districts, the conversion of farm soils to residential and commercial uses is not considered a significant impact to the resource since focusing the development in these planning areas helps to preserve the more rural areas of the county outside of the Leonardtown area. The county zoning surrounding Leonardtown and its associated PFAs and Development District is primarily established as a Rural Preservation District and this designation, along with its active agricultural land preservation efforts, will help ensure the preservation of productive farmlands and farmland soils. In addition, the town's comprehensive plan promotes the establishment of a greenbelt using easements and land preservation tools to focus sustainable town growth that would reduce pressures for growth in other less appropriate locations in the county thereby protecting the county's agricultural lands and the conversion of farmland soils in those areas outside of targeted growth areas.

10. Historic Properties

Leonardtown is the oldest town in the state that has been incorporated. However, there is no historic district within the ICE geographic area. Based on a review of the MD Inventory of Historic Properties, 13 individual historic properties have been identified in the ICE boundary as being either listed or eligible for listing on the National Register of Historic Places (NRHP).

Approximately half of them are clustered in the old section of Leonardtown south of MD 5. Much of the historic character of Leonardtown remains, particularly in the old downtown section around the county Court House. In this part of town multiple structures with historical significance have been adaptively reused and new structures have been built to fit the historical context of the community. The stated purpose of Leonardtown's Comprehensive Plan (2010) is to protect and perpetuate the town's "unique atmosphere and small town character while enhancing its role as the historic and governmental center of St. Mary's County and as a vibrant residential and business center." One of the key elements of the Town's vision listed in the plan is "(a) sustained appreciation and commitment to protection of the Town's historic resources." However, while the local officials promote the reuse of historic structures and the protection of those listed on the National Register, there are no special ordinance requirements in place for historic preservation.

Direct and Indirect Effects

Figure III-18 and Table III-16, illustrate the location and extent of the historic properties that would be potentially impacted by the MD 5 project and other planned land development actions. There is the potential for the propose MD 5 improvements to encroach upon 6 properties, including a potential structure displacement. These properties include one listed property and 5 properties eligible for listing on the NRHP. It is anticipated that there would be only minimal indirect impacts associated with the MD 5 project. In addition, there are no direct impacts to historic properties associated with the planned land development projects as listed in Table ES-10 (three potentially historic properties associated with the Clark's Rest Development were surveyed as part of the MD 5 project and determined to be not eligible for listing on the NRHP). Since there is minimal potential for adverse effects on historic properties associated with the land development projects and these projects have existing access to the local roadway network and their development schedules and approvals are not connected to the proposed MD 5 improvements; there are only minimal indirect impacts as a result of projects by others.

Cumulative Effects

All potential encroachments on historic properties are associated with the MD 5 project. No potential encroachments on historic properties have been identified for any of the other proposed land development actions. The potential encroachment upon 6 properties is a worse case assessment based on the MD 5 project's Maximum Proposed Limits of Disturbance. While it is anticipated that this potential impact will be greatly reduced for the preferred improvement alternative, the MD 5 project does contribute to cumulative impacts within the ICE boundary as a result of this potential displacement.

11. Community Resources

The major community within the ICE boundary is the Town of Leonardtown, which is the oldest town in the state that has been incorporated. Other developed areas within the ICE boundary include non-incorporated areas of residential and commercial development, such as Loveville, located primarily along MD 5, north of the town. The proposed MD 5 project is entirely within the town's corporate limits. Over the past twenty years, the Leonardtown area has experienced an influx of economic, commercial, residential, and institutional development. The older downtown area has seen a resurgence of new stores and restaurants and the town has become an educational center with a branch of the College of Southern Maryland, Leonard Hill High, Middle and Elementary Schools, St. Mary's Ryken High School, Leonard Hall Junior Naval Academy, and the St. Mary's Technical Center. In 2004, St. Mary's Hospital transformed itself with a major expansion and renovation. Leonardtown also serves as the County Seat housing the courthouse as well as municipal, county, state, and federal agencies.

The town recently established two small municipal parks, The Port of Leonardtown at the former SHA property located in the McIntosh Run floodplain immediately adjacent to MD 5 and the Wharf Waterfront Park along Breton Bay at the southern tip of Washington Street. In addition, a public recreational property, Miedzinski Park, is located along Hollywood Road at the County Government Complex. It includes outdoor ball fields and the Leonard Hall Recreation Center, an indoor athletic facility managed by the St. Mary's County Parks and Recreation Department.

Direct and Indirect Effects

Figure III-18 and Table III-17 illustrate the location of existing developed areas and their proximity to the MD 5 project and other planned land development actions. The MD 5 improvements would result in a maximum of 5 residential displacements and 11 business displacements. A small sliver section (0.4 acre) of the Port of Leonardtown Park fronting MD 5 would be encroached. No other community facilities or services are anticipated to be directly impacted by the proposed roadway and intersection improvements. Given that the proposed improvements are primarily widening in an existing corridor extending through the town, impacts to adjacent developed properties are unavoidable. Efforts will be made to avoid and minimize displacements during the development of final design plans.

Since the proposed improvements are for an existing facility on existing alignment in a town and all the affected properties are immediately adjacent to the existing road, it is anticipated that there would be only minimal indirect impacts associated with the MD 5 project. The number of potential residential and commercial displacements is not substantial and no remaining residences will be isolated from the community. In addition, no community facilities will be affected. Therefore there will be no direct and no indirect impact to community cohesion. Some of the potential residential and commercial displacements will occur in an area identified as a potential environmental justice area along the south side of the existing MD 5 roadway, but there is no singular environmental justice community being impacted. Given that the project involves improvements to an existing roadway and there is development along both sides of the corridor being impacted, impacts to residences and commercial properties within a potential environmental justice area is unavoidable. In addition, adverse impact to the Leonardtown community will be offset by the construction of new sidewalks, including areas currently without sidewalks and wider shoulders to accommodate bicycles and horse-and-buggy travel. Lastly, given the available land in the corridor and the proposed large land development projects in the town, residences and commercial properties within the potential environmental justice area can be easily relocated within a one to two-mile area and residents within the community will continue to have easy and full access to community facilities, including schools and health care.

Lastly, the proposed project includes the consolidation of some access points, including the elimination of redundant access points for single properties. This effort will be an overall improvement for safety in the corridor and for emergency vehicle response times. It is anticipated that there will be only minor changes to traffic patterns and no road closures or rerouting of traffic through residential neighborhoods is proposed.

It is anticipated that the proposed MD 5 improvements will initially have minor direct impacts to local tax revenues and overall aesthetics. Since the proposed improvements will improve safety and mobility in the corridor for motorized vehicles, bicycles, horse-and-buggies, and pedestrians, it is anticipated that it will enhance the vitality of the overall Leonardtown community that would result in indirect positive impacts to local tax revenues. The project will include consideration of some components of streetscaping to enhance the overall aesthetics. The project is consistent with all local plans including the Leonardtown Comprehensive Plan (April 2010), the Leonardtown Water and Sewer Master Plan (2003), the St. Mary's Comprehensive Plan: Quality Of Life In St. Mary's County – A Strategy For The 21st Century (revised and adopted March 23, 2010), the St. Mary's County Land Preservation, Parks, and Recreation Plan (adopted December 2005), the St. Mary's County Comprehensive Water and Sewerage Plan (revised and adopted January 15, 2008), and the St. Mary's County's Educational Facilities Master Plan (July 2011).

Direct impacts to the community associated with the planned land development projects are listed in Table III-16. The proposed new developments will provide a large number of new residential units and commercial space within the town limits, including areas adjacent to the affected MD 5 corridor. In addition, the various land development projects include preservation of open space and development of public recreational areas and trails. This would be a positive benefit to the community not only because it would contribute to the vitality of the town but also adheres to the local and state planning initiatives that focus development in existing communities to facilitate the preservation of the outlying rural farmland and forested areas.

All ongoing and future land development projects have existing access to the local roadway network and their development schedules and approvals are not connected to the proposed MD 5 improvements; therefore, their potential direct impacts would not contribute to indirect impacts associated with the MD 5 project.

Cumulative Effects

The potential residential and commercial displacements associated with the MD 5 improvements would be offset by the proposed new residential and commercial developments proposed as part of the large land development projects within the town limits. Table III-16 indicates that the number of new residences, commercial land, and community recreational and preserved lands would be a net gain for the Leonardtown area.

Given the large scale of the proposed mixed-use residential developments – Clark Farm, Leonard’s Grant, and Tudor Hall Farm – county and local officials have identified concerns related to the town’s sewage treatment capacity and local school facility capacity. All three developments were previously restricted to a 10-year build-out limit and a development rate of 35 units per year. Maryland’s Adequate Public Facilities (APF) laws are a means to control development until facilities can be made adequate. Development approvals under APF are based on specifically defined public facility capacity standards as outlined in the county’s zoning ordinance. They are designed to curtail development in areas where public facilities are inadequate, and to delay development in planned growth areas until adequate facility capacity standards are in place or reasonably assured. St. Mary’s County APF regulations are addressed in Chapter 70 of the St. Mary’s County Zoning Ordinance.

Related to the existing limitations of sewage treatment capacity, the town has plans to expand the Leonardtown Wastewater Treatment Plant’s existing 0.68 million gallons/day (mgd) capacity to 0.95 mgd to accommodate planned development. In addition, the town is planning for an eventually upgrade of the plant using Enhanced Nutrient Removal (ENR) technology and for a capacity of 1.2 mgd. Using a phased approach for large developments as mandated by APF laws and regulations will provide the county and Leonardtown the time to cost-effectively expand and

upgrade wastewater collection and treatment facilities to meet the needs of new development without adverse impacts to the environment or undue burden to the existing community residents.

Concerning the proposed large number of residential units that could stress existing public education facilities in the Leonardtown School District, the St. Mary's County's current Educational Facilities Master Plan (July 2011) notes that the county has been concerned with the capacity of public school facilities since the 1990s given the effects of on-going growth within the county. St. Mary's County acquired (May 2009) the ±180-acre parcel from the Hayden family. The primary purpose for the land acquisition is to provide sites for a new (second) elementary school, a future middle school, and community recreation facilities in the Leonardtown School District. These other facilities could include the Leonardtown Library, an all-weather stadium, environmental study areas, joint recreational field usage, and a trail system. The total property is roughly bounded by Cemetery Road to the north, McIntosh Run to the northwest and the Leonard's Grant development to the west. The east property line for the property is approximately 850 feet west of Hollywood Road, MD 245. While the property is outside of the town limits, the portion of the property proposed for the school sites is in the Leonardtown Development District and the town is proceeding with steps to annex the property. Planning approval for the new elementary school was obtained in January 2011 as part of the FY2012 capital improvement program. The construction of this facility should not only relieve current capacity issues but also provide for future growth in student enrollment associated with the proposed residential developments in the Leonardtown area.

H. CONCLUSION AND MITIGATION

MD 5 will have direct impacts to natural, cultural, agricultural, and the community resources (includes potential displacements of existing residential units and commercial establishments in addition to a sliver take of the Port of Leonardtown Park and a potential take of a significant historic resource). These impacts are considered overall minor. The construction of any of the proposed MD 5 improvement alternatives will accommodate the planned land development activities. However, none of the planned development projects is dependent on the completion

of the proposed MD 5 project improvements. The transportation improvements will not increase the overall capacity of the roadway and will not provide new or improved access to previously isolated parcels of undeveloped land. The improvements are not expected to cause or induce new unplanned development that would affect changes in the current and planned pattern of land use, population density or growth rate. Therefore, the MD 5 improvement alternatives are expected to result in only minimal indirect effects on natural, cultural, agricultural, or community resources. The MD 5 project is compatible with all state, county, and local plans as are all the major land development activities within the MD 5 ICE geographic boundary. The indirect and cumulative impacts for all resources assessed in the MD 5 ICE analysis are not significant when considering: (1) the existing good conditions of the resources evaluated and (2) the planning and resource protection efforts undertaken by both government agencies and private developers.

Based on the ICE analysis, the proposed MD 5 project impacts would have a minimal overall contribution to the cumulative impacts associated with approved and proposed land development activities within the ICE geographic boundaries. The potential take of a significant historic resource under the MD 5 project is, however, a contribution to cumulative effects for historic resources. For those resources that could be exposed to relatively high cumulative impacts by others within the ICE geographic boundary (including the 100-year floodplain, wetlands, WSSC, RTE species buffer areas, Chesapeake Critical Area, agricultural lands, prime farmland soils, and the Green Infrastructure), the proposed Tudor Hall Farm development is the proposed action that would be the major or sole contributor to the cumulative impacts. Most of the sensitive resources are primarily associated with McIntosh Run. The resources within the McIntosh Run are of good quality and efforts are underway to maintain and improve the resources as part of the Breton Bay Breton Bay Watershed Restoration Action Strategy (2003) prepared for St. Mary's County and the Town of Leonardtown.

Impacts to other resources assessed in the ICE analysis such as forestlands (including land identified as part of the Green Infrastructure), FIDS, agricultural land, and farmland soils of statewide importance, are not significant when considering the total land area affected in the ICE geographic area. The areas immediately adjacent to and surrounding the Leonardtown PFA and

Development District are primarily zoned as part of the Rural Preservation District and public water and sewer service are restricted in these areas. The ongoing and future collaborative efforts of the town and county will ensure that development is properly directed to the parcels within the boundaries of the PFA and Development District. Focusing development in the Development District and PFA minimizes the impacts to forestland and agricultural lands associated with large land development activities. Therefore the cumulative impacts associated with the MD 5 project and other land development projects in the ICE boundary will not be a significant cumulative impact for the region, nor for the county.

MD 5 project-specific mitigation is proposed to minimize or compensate for unavoidable cumulative impacts associated with the MD 5 project and can be found in other sections of the document. It is expected that the current statutes and regulations protecting various sensitive resources will ensure that the site plans for proposed development projects is designed to avoid and minimize significant adverse impacts. In addition, the county recently designated a 28,800-acre natural resources conservation focus area in the north central part of the county that includes the Breton Bay watershed. This area surrounds the Leonardtown PFA and Development District and is anchored by the existing Huntersville Rural Legacy area to the north and the St. Mary's River Wildland to the south (St. Mary's County 2005 Land Preservation, Parks, and Recreation Plan and 2010 Comprehensive Plan). The county has identified this conservation area to focus conservation, enhancement, preservation, and best management efforts and monies to provide additional protection to the natural resources surrounding the PFA and Development District.

A potential major issue for the area encompassed by the ICE geographic boundary is the potential cumulative impact to the large forested areas and wetlands within the McIntosh Run drainage area. These lands have been identified by the MDNR as part of Maryland's Green Infrastructure. St. Mary's County officials use the MDNR's Green Infrastructure assessment in their efforts to reach the county's natural resource protection goals. The assessment is cited in the county's zoning ordinance (Article 7, Section 71.8 4.d (8)) in reference to preserving forest interior dwelling species (FIDS) habitat. While these efforts by the county will protect the large portions of Green Infrastructure outside the Leonardtown PFA and Development District, the

smaller areas along the western end of the town and its PFA and Development District within and immediately adjacent to the McIntosh Run channel, will be vulnerable.

IV. DRAFT SECTION 4(f) EVALUATION

A. Introduction

Section 4(f) as amended and codified in the U.S. Department of Transportation Act of 1966, 49 U.S.C 303 (c), states that the Federal Highway Administration (FHWA) “may not approve the use of land from a significant publicly owned public park, recreation area, or wildlife and waterfowl refuge, or any significant historic site unless a determination is made that: 1) there is no feasible and prudent alternative to the use of land from the property and 2) the action includes all possible planning to minimize harm to the property resulting from such use” [23 CFR 774.3(a)].

This Draft Section 4(f) Evaluation has been prepared in accordance with 23 CFR 774 and 49 USC 303 to assess the likely effects of the proposed action upon Section 4(f) resources and evaluate options that avoid or minimize impacts to those resources caused by the build alternatives. The final Section 4(f) evaluation will provide a determination on whether feasible and prudent avoidance alternatives to the use exist, and whether all possible planning to minimize harm to the resources has been performed.

B. Purpose and Need

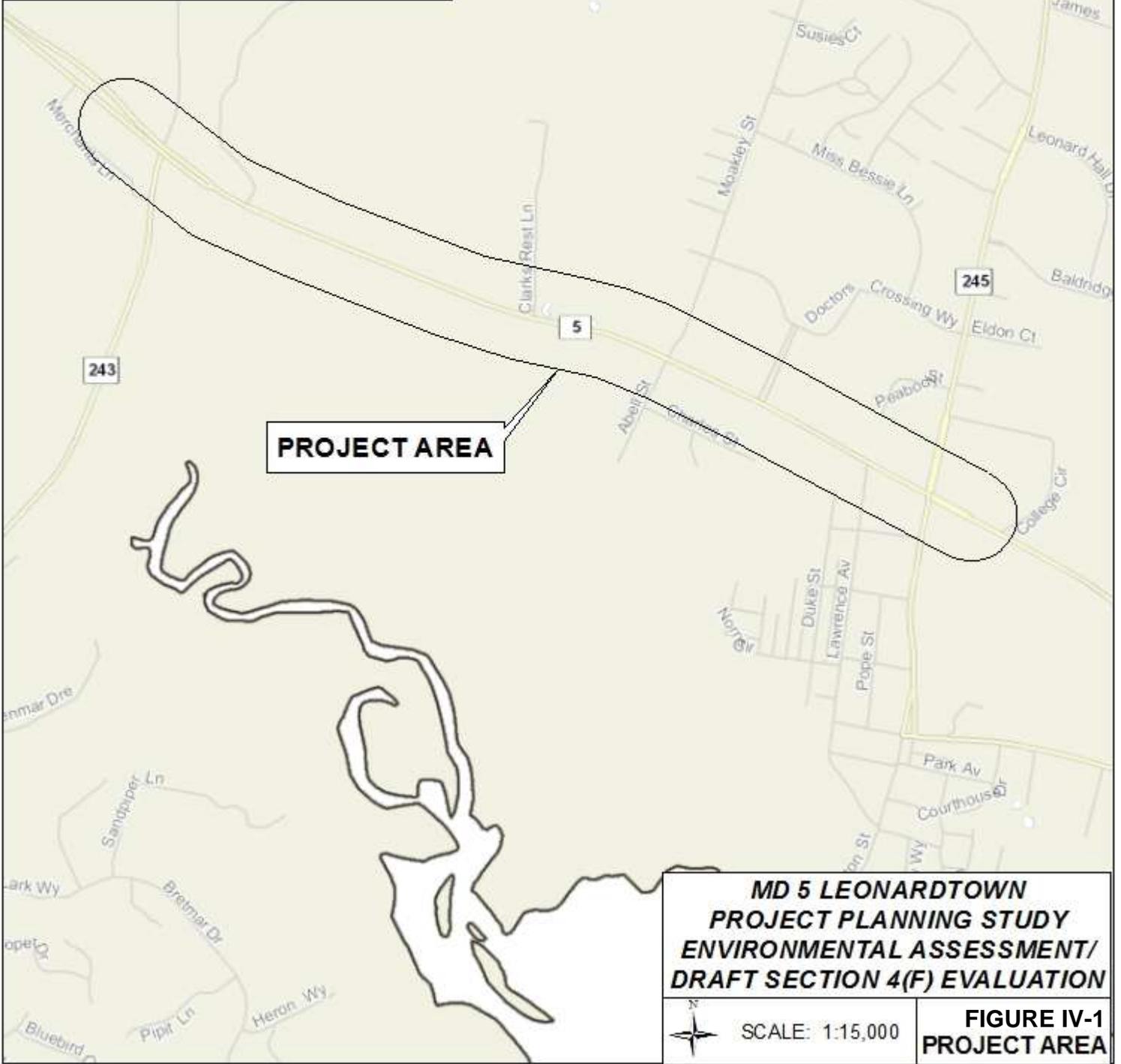
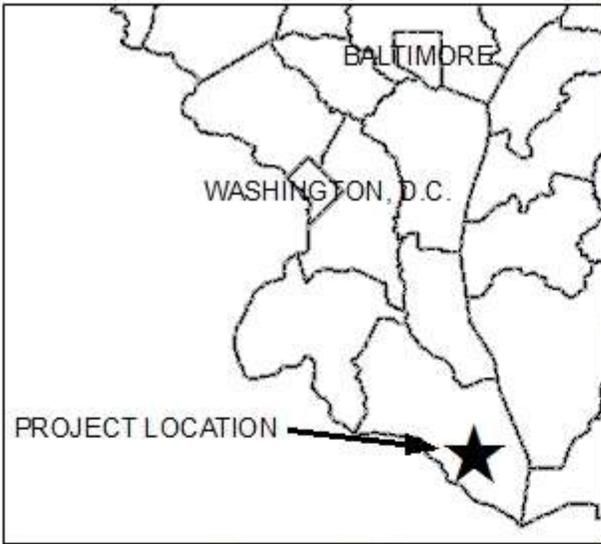
The Maryland State Highway Administration (SHA) is conducting a project planning study along MD 5 in Leonardtown, Maryland. The project is located along MD 5 from MD 243 to MD 245 (*Figure IV-1*). The purpose of the study is to improve vehicular safety and traffic operations along MD 5, while supporting existing and planned development in the area. Currently, MD 5 serves as the major gateway to Leonardtown, the county seat of St. Mary’s County, Maryland.

Improvements along the MD 5 corridor in Leonardtown are needed to increase vehicular and pedestrian mobility, address safety concerns and provide adequate intersection capacity and improved access for the existing traffic and planned development which will generate extensive additional traffic in the area. The study will also evaluate necessary improvements to the intersection configurations along the MD 5 corridor to ensure sufficient capacity, along with safe pedestrian, bicycle and horse-and-buggy

compatibility, and improved vehicular access to St. Mary's Hospital as well as residences, businesses, schools, and places of worship along MD 5, while ensuring adequate accommodations are provided for the Amish and elderly communities within the area. The MD 5 study area is consistent with the 2007 Highway Needs Inventory.

C. Proposed Action

In addition to the No Build Alternative, SHA is evaluating three build alternatives as part of this study. In addition, three options that may be applied to Alternatives 3 and 4 are currently under consideration. These alternatives and options are described below and are shown in detail in *Section II* of this EA.



Alternative 1: No-Build

No major improvements are proposed with Alternative 1, the No-Build Alternative. The existing MD 5 roadway consists of four 12-foot travel lanes (two in each direction) and a four-foot painted median. A five foot sidewalk exists along both side of MD 5 with no buffer between the travel lanes and sidewalk. Minor short-term improvements would occur as part of normal maintenance and safety projects but the number and width of the lanes would not change. This alternative does not address the Purpose and Need for the project. Rather, it serves as a baseline for comparing the impacts and benefits of other proposed alternatives.

Alternative 2: Transportation Systems Management

The Transportation Systems Management (TSM) Alternative consists of lower-cost improvements including minor construction and operational enhancements. Under this alternative, no through capacity would be added to MD 5. As depicted on **Figures II-2 through II-4** in *Section II*, improvements proposed for the MD 5 intersections of MD 243, MD 245 and, Abell/Moakley streets include:

- Provide a double left from MD 5 westbound to MD 243 southbound
- Provide a double right from MD 243 northbound to MD 5 eastbound
- Add an exclusive right turn lane from MD 5 eastbound to MD 5 Business (Washington Avenue) southbound
- Provide a double right from MD 245 southbound to MD 5

Additional storage length and taper areas are included where necessary as part of the intersection improvements. Alternative 2 also includes the formal striping of left turn lanes on MD 5 at its intersection with Abell/Moakley Street. New sidewalks would be added along MD 5 at the intersections to improve pedestrian accessibility and safety by connecting with the existing sidewalks where present. Wide outside lanes are included on MD 5 at these intersections for on-road bicycle use and to improve safety for horse-drawn vehicles.

Alternative 3: Five Lane Roadway

Alternative 3 includes the widening of MD 5 to accommodate the addition of a 13-foot-wide continuous center turn lane that would replace the existing four-foot painted median on MD 5 (see **Figures II-1 and II-5 through II-8** in *Section II*). Alternative 3 also proposes intersection improvements throughout the corridor. A 12-foot-wide inside travel lane and 16-foot-wide outside travel lane would be provided. This would require widening the existing roadway to one or both sides. The 16-foot-wide outside lane would be provided to accommodate bicycle access along the corridor as well as horse-drawn vehicles. In addition a 5-foot sidewalk would be provided along both sides of MD 5 throughout the entire project limits to improve pedestrian accessibility and safety. The MD 5 intersections at MD 243 and MD 245 would include raised medians for ADA compliance, and include all improvements proposed under Alternative 2. New signalized intersections would be provided at the MD 5 intersections with Clark's Rest Lane and Abell/Moakley Streets.

Alternative 4: Four Lane Divided Roadway

Alternative 4 proposes the addition of a continuous 18-foot median for MD 5 with left-turn lanes provided at major intersections (see **Figures II-1 and II-9 through II-12** in *Section II*). A 12-foot inside travel lane and 16-foot outside travel lane will be provided. This would require widening the existing roadway to one or both sides. The 16-foot outside lane would be provided to accommodate bicycle access along the corridor along with horse drawn vehicles. In addition, a 5-foot sidewalk would be provided along both sides of MD 5 throughout the entire project limits to improve pedestrian accessibility and safety. The MD 5 intersections at MD 243 and MD 245 would include the improvements proposed under Alternative 2.

Option 2: Stream Avoidance

Under this option, the baseline of the proposed roadway would deviate approximately 40 feet to the south of the existing centerline to avoid the longitudinal stream impact and a

historic site (Gough Farm) located on the north side of MD 5 between Abell/Moakley streets and Clark's Rest Lane (see **Figures II-13 and II-14** in *Section II*). The stream was identified as a resource of concern during the initial field review with the review and regulatory agencies.

Option 3: Additional Intersection Improvements

Option 3 would expand the intersections along MD 5 beyond what is proposed in all build alternatives to accommodate additional left turning movements and storage capacity at the MD 5 intersections with MD 243 and MD 245 (see **Figures II-15 and II-16** in *Section II*). The goal of these additional intersection improvements beyond those proposed under Alternatives 3 and 4 is to achieve a level of service of 'E' or better in 2030 at these two intersections. Both intersections would operate at level of service 'F' under future No-Build conditions. Under Alternatives 2, 3, and 4, the MD 5/MD 243 intersection would operate at level of service 'E' in the design year and the MD 5/MD 245 intersection would operate at level of service 'F'. All approaches to the intersection of MD 5 at MD 245 will have double left turning bays, except for MD 5 westbound. This option extends the roadway reconstruction along MD 5 Business and MD 245. This option also includes a traffic signal at MD 245/Merchants Lane to improve the operation and safety for vehicles exiting Merchants Lane. In addition, a jug handle movement has been provided at the intersection of MD 5 at Abell/Moakley streets to accommodate U-turning vehicles as part of Alternative 4.

Option 4: Shopping Center Modified Access

Option 4 proposes the same improvements as Alternative 4 with the exception of the improvements for the MD 5/MD 243 intersection. Under Option 4, the intersection of MD 5 at MD 245 would have the same lane configuration as Alternative 4 (see **Figure II-17** in *Section II*). At the MD 5 intersection with MD 243, the right-turn movement from MD 243 onto Merchant's Lane and the left-turn movement from Merchant's Lane onto MD 243 would be prohibited. A double left-turn into the shopping plaza from north-bound MD 5 would be added further west at the location of the existing right-

in/right-out entrance with MD 5 northbound and the shopping plaza. The restriction of movements onto Merchant's lane helps reduce the length of the left turn bays for northbound MD 5 at MD 243.

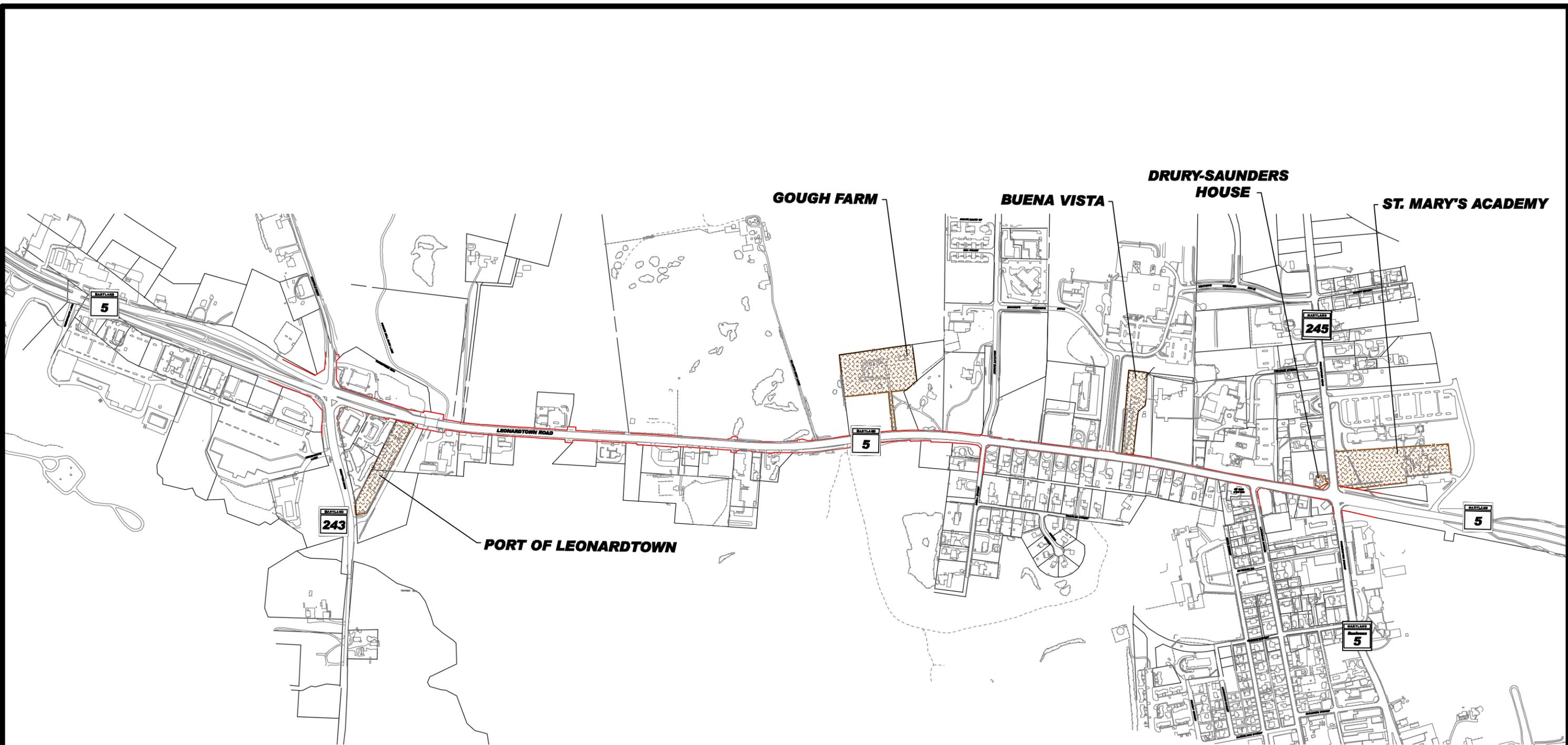
D. Section 4(f) Properties

Five Section 4(f) properties were identified within the study area (*Figure IV-2*). These include the Port of Leonardtown (SM-833), Buena Vista (SM-52), Gough Farm (SM-331), Drury-Saunders House (SM-540), and St. Mary's Academy (SM-422). Each of these properties is described below.

Port of Leonardtown (Old State Highway Administration Garages) (SM-833)

The Port of Leonardtown is a publicly-owned park facility that occupies the site of the Old State Highway Administration Garages, which is also eligible for listing in the National Register of Historic Places under Criteria A and C. Thus, this property qualifies for protection under Section 4(f) as both a park and a historic site. The property is approximately three acres in size and is located along southbound MD 5, just east of MD 243. The property extends in the southwest direction from MD 5 to the east side of MD 243 and is accessed by a driveway along MD 243. The historic boundary comprises the majority of the parcel and encompasses the area around the garage buildings and the driveway. Only a narrow strip of land along the eastern side of the property lies outside the historic boundary (see *Figure IV-2*). Leonardtown officials recently acquired the property for conversion to municipal parkland.

Currently the site includes two masonry garage structures built in the 1930s. The northernmost SHA Garage is located approximately forty feet from the current alignment of MD 5. The SHA garage was associated with road maintenance in St. Mary's County from c. 1928; therefore, its proximity to the road is consistent with the history of the structure. The northern building has been gutted in preparation for its re-use as a commercial winery and tour headquarters. The other building will provide concessions, restrooms, and storage.



**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
Section 4(f) Properties**

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
PROJECT MANAGEMENT DIVISION
1"=100' SCALE



BACKGROUND MAPPING SOURCE:
MD SHA FEBRUARY 2006
AERIAL FROM 2007

Figure IV - 2

The property currently includes few other amenities such as a picnic table; however, the town has plans to enhance the recreational use of the park (see *Appendix B*). The town refers to its proposed project as the Port of Leonardtown and the plans include a winery and vineyard demonstration area, a picnic area, and a kayak launch into McIntosh Run.

Gough Farm (SM-331)

The Gough Farm is located along northbound MD 5 approximately 600 feet west of Moakley Street and is eligible for listing in the National Register of Historic Places under Criteria A and C. The property is approximately 6.9 acres in size and is accessed via a narrow driveway over a stream along northbound MD 5. The majority of the area within the historic boundary is set back approximately 300 feet from MD 5 and encompasses the northwestern corner of the property, but the narrow driveway that extends to MD 5 is also included within the historic boundary (see *Figure IV-2*).

The property includes an American four-square house with Colonial Revival-style details as well as several outbuildings. The farm buildings of the Gough Farm are located approximately 500 feet from MD 5. The entry drive is protected by a guard rail and identified with newer signage and, thus, does not contribute to the character of the historic resource.

Buena Vista (SM-52)

Buena Vista is a National Register-listed historic property located along northbound MD 5, approximately 1,000 feet east of Moakley Street. The site is listed under Criteria B and C. The property is approximately 1.6 acres in size and extends north from MD 5 to just south of St. Mary's Hospital. The c. 1840 Greek Revival House is set approximately 350 feet back from MD 5 and is accessed via a narrow driveway from MD 5. The historic boundary includes the area around the house and the driveway and comprises the western half of the parcel (see *Figure IV-2*). There are three contributing elements to Buena Vista property including the main house, a meat house, and a storage shed. The entrance to the driveway is defined by two brick piers with concrete caps incised with the words "Buena" and "Vista," which are approximately 20 feet from the road with a great

deal of vegetation between the road and brick piers. The nomination form for Buena Vista defines the period of significance of the property from c. 1840s to 1888. These piers are not contributing elements as they date from the twentieth century.

Drury-Saunders House (SM-540)

The Drury-Saunders House, a c. 1900 Queen Anne style frame house, is located at the northwest corner of the MD 5/MD 245 intersection. The property is approximately 1.6 acres in size and is accessed from both MD 5 and MD 245 via a driveway that extends in an L-shape around the house between the two roadways. The historic boundary for the house includes the house footprint, immediate vegetation and sidewalk leading to MD 245, but does not include the entire lot (see *Figure IV-2*). The property has been determined eligible for listing in the National Register of Historic Places under Criteria A and C.

St. Mary's Academy (SM-422)

The Saint Mary's Academy, now Building A of the College of Southern Maryland, Leonardtown Campus, is located along northbound MD 5 approximately 700 feet east of MD 245. The building is a 1930s period academy building with Art Deco details/school architecture. The property has been determined eligible for listing in the National Register of Historic Places under Criteria A and C. The historic boundary for this resource encompasses approximately five acres including the Academy School and the lawn which extends from the school building to MD 245 (see *Figure IV-2*). The property is accessed via a driveway along northbound MD 5 that leads to the parking lot for the building. Neither the driveway nor the parking lot is included within the historic boundary.

E. Section 4(f) Uses

Each of the five Section 4(f) properties in the study area would incur a Section 4(f) use as a result of one or more of the build alternatives proposed for the MD 5 from MD 243 to MD 245 project planning study. Alternative 1, the No-Build Alternative, would completely avoid the use of Section 4(f) properties. Relocating the roadway to either the

north or south to avoid the use of all Section 4(f) properties would not be feasible and prudent since MD 5 is an established transportation corridor with residential and commercial development along both sides of the roadway. A relocation of MD 5 would not support the existing development along the roadway and, thus, would not meet the project's purpose and need.

The Section 4(f) uses of each property and the total Section 4(f) use for each alternative are summarized in *Table IV-1*.

Table IV-1: Summary of Section 4(f) Uses

| Property | Section 4(f) Use (acres) | | | | | | | | |
|----------------------------------|--------------------------|------------------|------------------|-------------------|------------------|------------------|------------------|-------------------|------------------|
| | Alt. 2 | Alternative 3 | | | | Alternative 4 | | | |
| | | Alt. 3 | Opt. 2 | Opt. 3 | Opt. 4 | Alt. 4 | Opt. 2 | Opt. 3 | Opt. 4 |
| Port of Leonardtown | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| Gough Farm | 0 | 0.02 | 0 | 0.02 | 0.02 | 0.02 | 0 | 0.02 | 0.02 |
| Buena Vista | 0 | 0.08 | 0.08 | 0.08 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 |
| Drury-Saunders House | 0.03 | 0.03 | 0.03 | 0.13 ¹ | 0.03 | 0.03 | 0.03 | 0.13 ¹ | 0.03 |
| St. Mary's Academy | 0.11 | 0.11 | 0.11 | 0.19 | 0.11 | 0.11 | 0.11 | 0.19 | 0.11 |
| Total | 0.22 | 0.32 | 0.30 | 0.50 | 0.32 | 0.33 | 0.31 | 0.51 | 0.33 |
| Section 106 Effect Determination | NAE ² | NAE ² | NAE ² | AE ³ | NAE ² | NAE ² | NAE ² | AE ³ | NAE ² |

¹ Section 4(f) use of Drury-Saunders House under Option 3 includes the displacement of the historic building.

² NAE - No Adverse Effect

³ AE - Adverse Effect

Port of Leonardtown

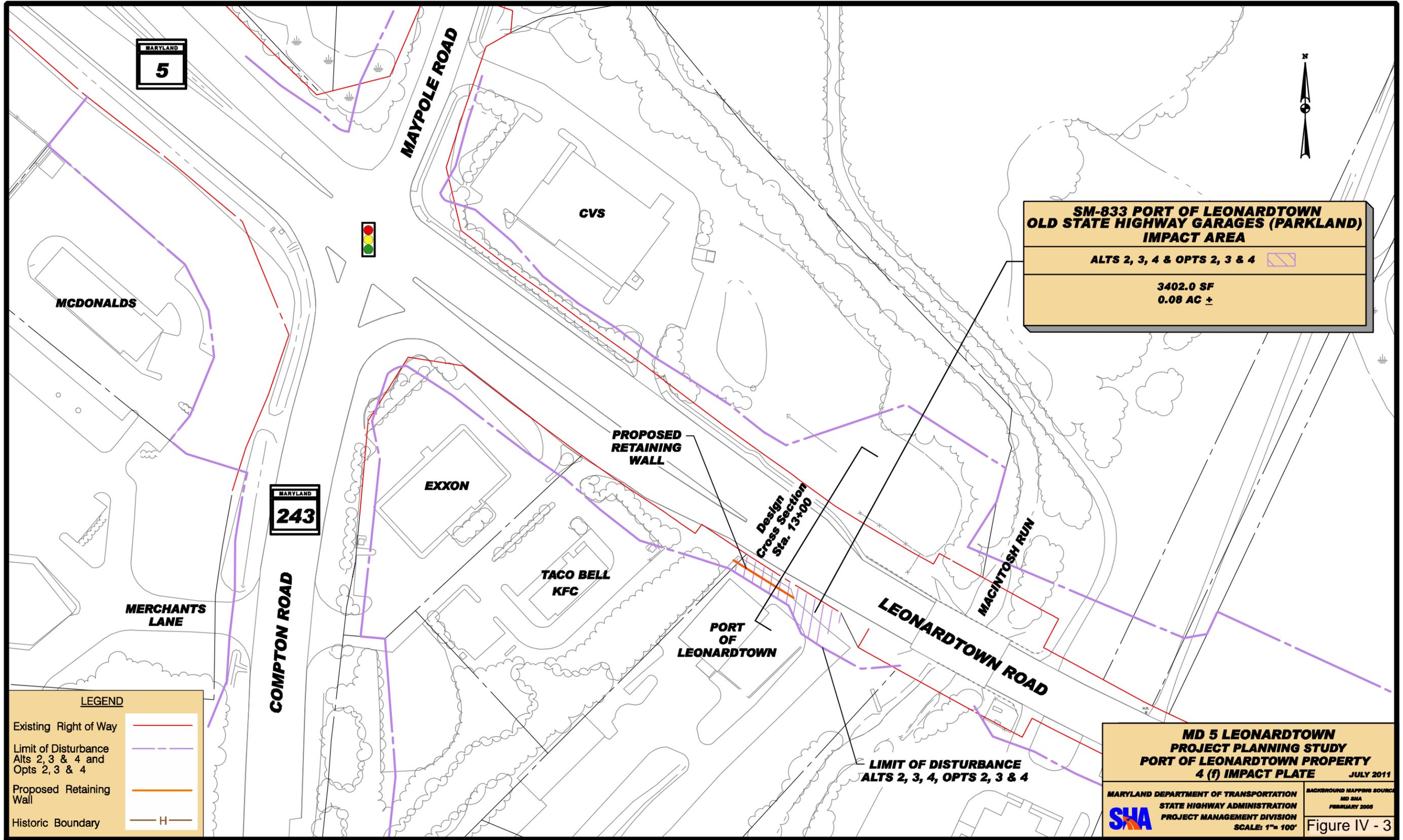
The Section 4(f) use of the Port of Leonardtown would be identical for Alternatives 2, 3, and 4 as well as for Options 2, 3, and 4. Under each of these alternatives and options, a Section 4(f) use of approximately 0.08 acre would occur (*Figure IV-3*). The affected property is a strip of land that is approximately 150 feet wide and ranges from approximately 20 to 40 feet wide and is located immediately adjacent to southbound

MD 5 along the north edge of the Port of Leonardtown property. This land is currently comprised of an asphalt driveway that surrounds the northernmost building on the site and a small amount of grassy open space. The Section 4(f) use of this property would result from roadside grading and the placement of a retaining wall, which encroaches within the historic boundary but minimizes the grading necessary. No buildings on the site would be directly impacted and access to the property would not change.

Each of the build alternatives would result in a physical use of the property and that was determined to have no adverse effect on the Port of Leonardtown under Section 106. In addition, SHA has determined that the Section 4(f) use of the Port of Leonardtown would not adversely affect the activities, features, or attributes that qualify the resource for protection under Section 4(f) as a public park. Written concurrence of SHA's determination was requested from the officials with jurisdiction (the Town of Leonardtown) in a letter dated February 29, 2012 (*Appendix B*). Therefore, SHA will seek a *de minimis* impact determination for this resource.

Drury-Saunders House

A Section 4(f) use of approximately 0.03 acre would occur at the Drury-Saunders House under Alternatives 2, 3, and 4, as well as under Options 2 and 4 (*Figure IV-4*). The impacted land is a narrow band located along the south and east edges of the property adjacent to the northbound MD 5 and southbound MD 245, respectively. The affected area is approximately 70 feet long and ranges from 10 to 20 feet wide along the east side of the historic boundary and is approximately 50 feet long and ranges from 10 to twenty feet wide along the southern edge. The affected property is part of the front and side yard of the house and contains several trees, a sidewalk that connects the house to the sidewalk along MD 245, and the tie-ins of the two ends of the asphalt driveway that provides access to the property. The Section 4(f) use would result from roadside grading associated with the improvements to the MD 5/MD 245 intersection. Some of the trees would be removed, the eastern end of the sidewalk would be reconstructed, and the driveway tie-ins would be reconstructed. Access to the property would be maintained; however, traffic would be brought within closer proximity to the house. Each of these



MARYLAND
5

MARYLAND
243

**SM-833 PORT OF LEONARDTOWN
OLD STATE HIGHWAY GARAGES (PARKLAND)
IMPACT AREA**

ALTS 2, 3, 4 & OPTS 2, 3 & 4

**3402.0 SF
0.08 AC ±**

LEGEND

Existing Right of Way ———

Limit of Disturbance
Alts 2, 3 & 4 and
Opts 2, 3 & 4 - - - - -

Proposed Retaining
Wall ———

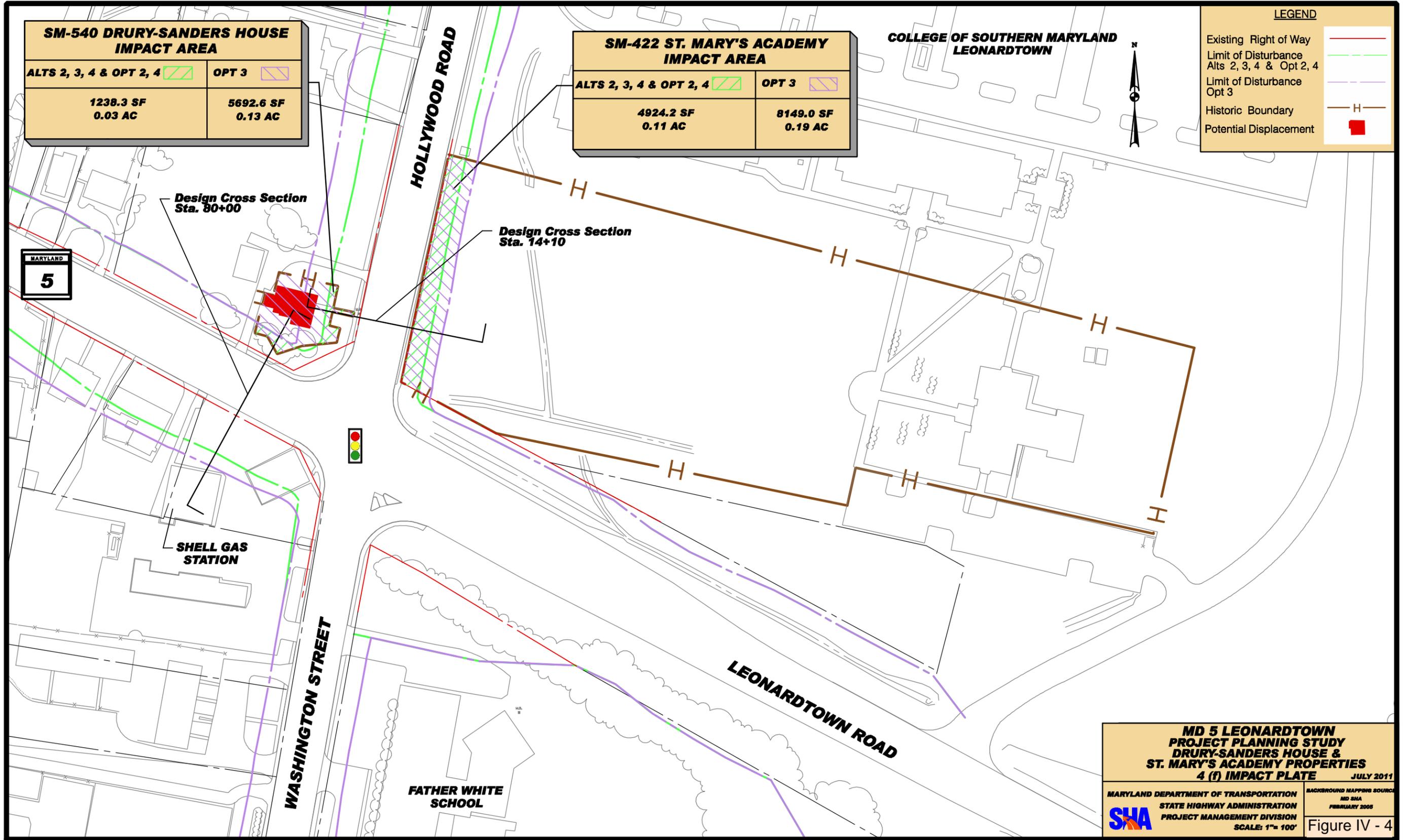
Historic Boundary — H —

**MD 5 LEONARDTOWN
PROJECT PLANNING STUDY
PORT OF LEONARDTOWN PROPERTY
4 (f) IMPACT PLATE** JULY 2011

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
PROJECT MANAGEMENT DIVISION
SCALE: 1" = 100'

BACKGROUND MAPPING SOURCE
MD SHA
FEBRUARY 2005

Figure IV - 3



| SM-540 DRURY-SANDERS HOUSE IMPACT AREA | |
|---|----------------------|
| ALTS 2, 3, 4 & OPT 2, 4 | OPT 3 |
| 1238.3 SF 0.03 AC | 5692.6 SF 0.13 AC |

| SM-422 ST. MARY'S ACADEMY IMPACT AREA | |
|--|----------------------|
| ALTS 2, 3, 4 & OPT 2, 4 | OPT 3 |
| 4924.2 SF 0.11 AC | 8149.0 SF 0.19 AC |

| LEGEND | |
|---|--|
| Existing Right of Way | |
| Limit of Disturbance Alts 2, 3, 4 & Opt 2, 4 | |
| Limit of Disturbance Opt 3 | |
| Historic Boundary | |
| Potential Displacement | |



Design Cross Section
Sta. 80+00

Design Cross Section
Sta. 14+10

SHELL GAS
STATION

WASHINGTON STREET

FATHER WHITE
SCHOOL

HOLLYWOOD ROAD

LEONARDTOWN ROAD

COLLEGE OF SOUTHERN MARYLAND
LEONARDTOWN

| | | |
|---|--|---------------|
| MD 5 LEONARDTOWN PROJECT PLANNING STUDY DRURY-SANDERS HOUSE & ST. MARY'S ACADEMY PROPERTIES 4 (f) IMPACT PLATE | | JULY 2011 |
| MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION PROJECT MANAGEMENT DIVISION SCALE: 1" = 100' | BACKGROUND MAPPING SOURCE MD SHA FEBRUARY 2005 | Figure IV - 4 |

alternatives and options was determined to have no adverse effect on the Drury-Saunders House under Section 106. Since there would be a physical use of this historic property and that use was determined to result in no adverse effect to the resource, the Section 4(f) use would have a *de minimis* impact.

Option 3 would result in a Section 4(f) use of approximately 0.13 acre from the Drury-Saunders House (**Figure IV-4**). The affected property is located along both MD 5 and MD 245 and is approximately 70 feet long and 40 to 50 feet wide along the eastern side of the historic boundary and approximately 50 feet long and 10 to twenty feet wide along the southern edge. It contains portions of the front and side yards, part of the house, the sidewalk connecting the house to the sidewalk along MD 245 and the two ends of the driveway along MD 5 and MD 245. The Drury-Saunders House would be displaced by Option 3. In addition, trees existing within the yard would be removed. The impacts to the property would be the result of the construction of additional turning lanes at the MD 5/MD 245 intersection and the associated roadside grading. Option 3 was determined to have an adverse effect on the Drury-Saunders House under Section 106 due to the demolition of the house.

St. Mary's Academy

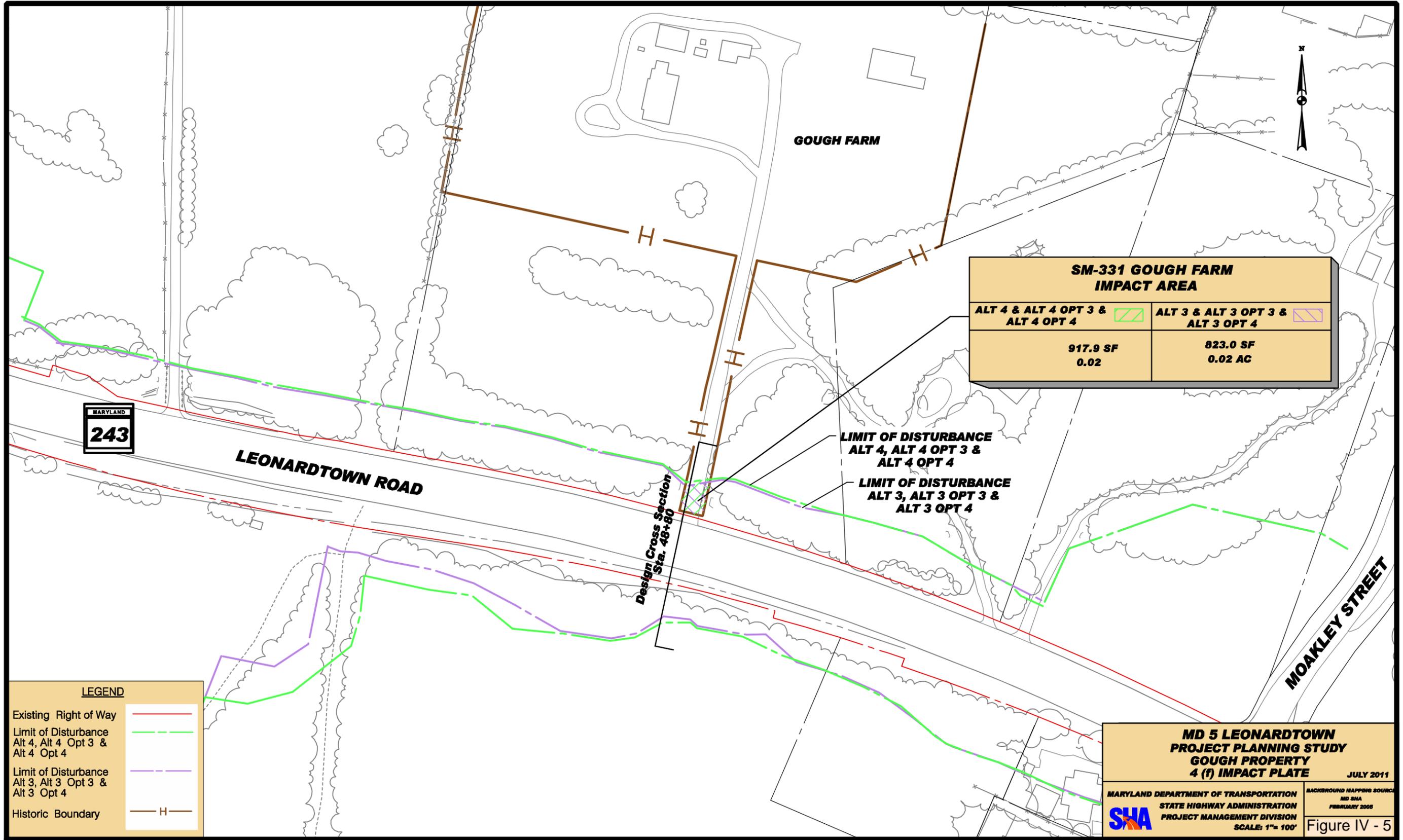
Alternatives 2, 3, and 4 as well as Options 2 and 4 would result in a Section 4(f) use of approximately 0.11 acre from St. Mary's Academy (**Figure IV-4**). The affected land is located along the west side of the property along northbound MD 245 and is approximately 240 feet long and twenty feet wide. It consists of open, grassy area with a few sparsely located trees. No existing man-made features would be impacted, but several trees may be removed. The use of this property would be the result of roadside grading associated with the improvements to the MD 5/MD 245 intersection. Each of these alternatives and options was determined to have no adverse effect on St. Mary's Academy under Section 106. Since there would be a physical use of this historic property and that use was determined to result in no adverse effect to the resource, the Section 4(f) use would have a *de minimis* impact.

The Section 4(f) use of St. Mary's Academy resulting from Option 3 would be similar to that described for the remaining alternatives and options (**Figure IV-4**). However, since the proposed intersection improvements would result in a wider roadway section in the vicinity of this property, the affected area would amount to approximately 0.19 acre. The affected area would be approximately 240 feet long and 40 feet wide. The proposed intersection improvements would require roadside grading that would encroach onto the western side of the property. The impacted land is currently an open, grassy area with a few sparsely located trees. A few trees may be removed, but no other features would be impacted and access to the property would be maintained. Option 3 was determined to have no adverse effect on St. Mary's Academy under Section 106. Since there would be a physical use of this historic property and that use was determined to result in no adverse effect to the resource, the Section 4(f) use would have a *de minimis* impact.

Gough Farm

Under Alternative 3, as well as when Options 3 and 4 are applied to Alternative 3, a Section 4(f) use of approximately 0.02 acre would result the proposed widening of MD 5 (**Figure IV-5**). The affected area is approximately 25 feet long and 35 feet wide and is located immediately adjacent to northbound MD 5 at the end of the driveway to the Gough Farm property. The grading required as part of the roadway improvements would truncate the driveway and require its tie-in to MD 5 to be reconstructed. The impacted area also includes a small stream that runs parallel to northbound MD 5 and passes beneath the property's driveway. Alternative 3, Alternative 3 with Option 3, and Alternative 3 with Option 4 were determined to have no adverse effect on the Gough Farm under Section 106. Since there would be a physical use of this historic property and that use was determined to result in no adverse effect to the resource, the Section 4(f) use would have a *de minimis* impact.

The size (0.02 acre) and nature of the direct impact to Gough Farm that would result from Alternative 4, as well as when Options 3 and 4 are applied to Alternative 4, would be nearly identical to that described for Alternative 3; however, the four-lane divided roadway section proposed under Alternative 4 would have a slightly smaller physical use



| SM-331 GOUGH FARM IMPACT AREA | |
|--------------------------------------|--------------------------------------|
| ALT 4 & ALT 4 OPT 3 & ALT 4 OPT 4 | ALT 3 & ALT 3 OPT 3 & ALT 3 OPT 4 |
| 917.9 SF 0.02 | 823.0 SF 0.02 AC |

LIMIT OF DISTURBANCE
ALT 4, ALT 4 OPT 3 &
ALT 4 OPT 4

LIMIT OF DISTURBANCE
ALT 3, ALT 3 OPT 3 &
ALT 3 OPT 4

Design Cross Section
Sta. 48+80

MARYLAND
243

LEONARDTOWN ROAD

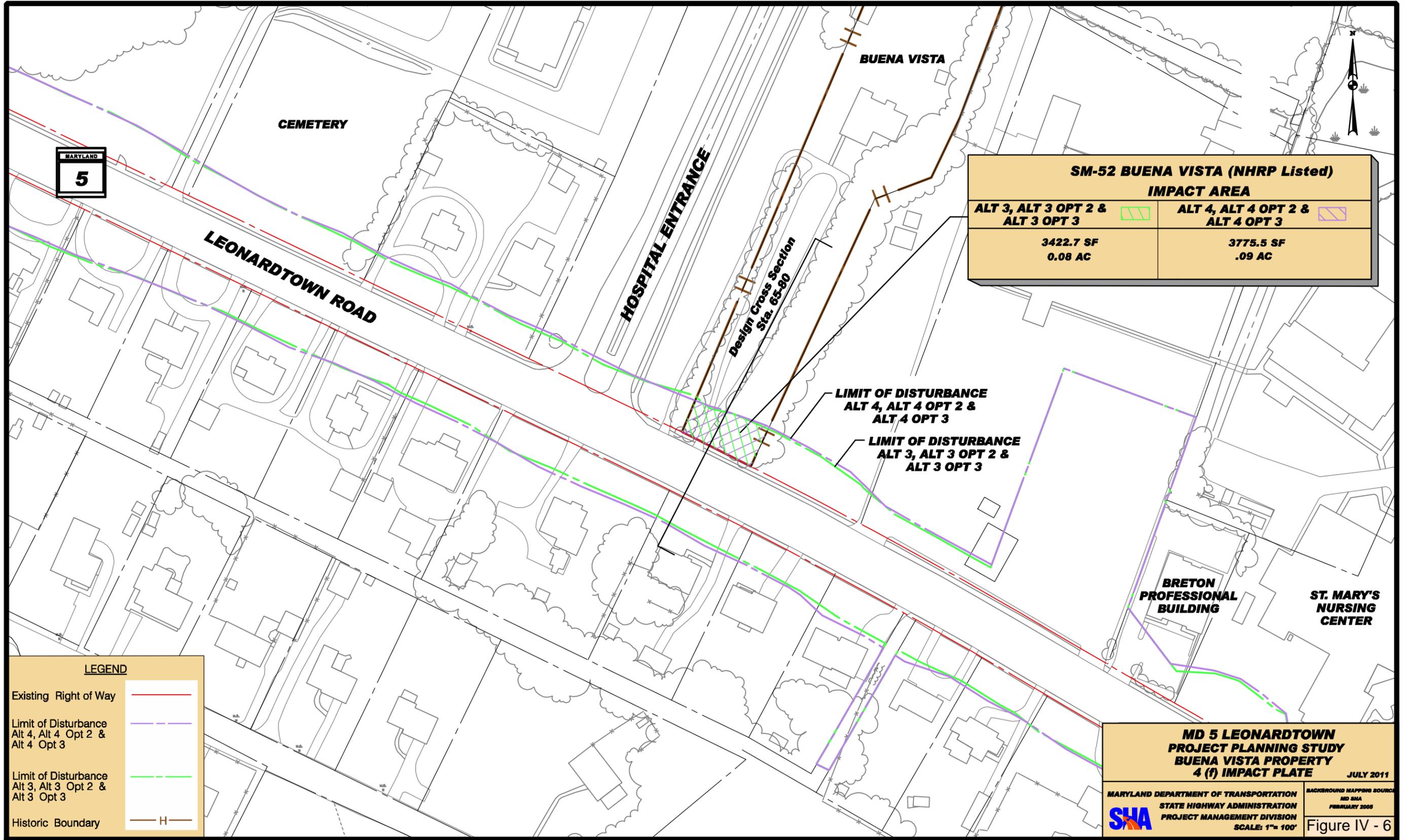
MOAKLEY STREET

GOUGH FARM



| LEGEND | |
|---|--|
| Existing Right of Way | |
| Limit of Disturbance Alt 4, Alt 4 Opt 3 & Alt 4 Opt 4 | |
| Limit of Disturbance Alt 3, Alt 3 Opt 3 & Alt 3 Opt 4 | |
| Historic Boundary | |

| | | |
|--|--|---------------|
| MD 5 LEONARDTOWN PROJECT PLANNING STUDY GOUGH PROPERTY 4 (f) IMPACT PLATE | | JULY 2011 |
| MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION PROJECT MANAGEMENT DIVISION SCALE: 1" = 100' | BACKGROUND MAPPING SOURCE MD SHA FEBRUARY 2005 | Figure IV - 5 |



of the property (less than 0.01 acre) and would encompass an area that is approximately 25 feet long and 30 feet wide. Under these alternatives and options, access to the property from MD 5 would also be limited to right-in/right-out only (**Figure IV-5**). Alternative 4, Alternative 4 with Option 3, and Alternative 4 with Option 4 were determined to have no adverse effect on the Gough Farm under Section 106. Since there would be a physical use of this historic property and that use was determined to result in no adverse effect to the resource, the Section 4(f) use would have a *de minimis* impact.

Buena Vista

Approximately 0.08 acre of land would be used from Buena Vista under Alternative 3. The affected area is approximately 80 feet long and 35 to 45 feet wide. This Section 4(f) use would be identical when Alternative 3 includes Option 2, Option 3, and with Option 4 (**Figure IV-6**). The impacted land is located at the end of the property's driveway immediately adjacent to northbound MD 5 and contains the driveway and several trees on either side of the driveway. The affected area also contains two brick piers with concrete caps incised with the words "Buena" and "Vista," which would be removed as a result of the proposed improvements. The use of this land is due to the grading required as part of the roadway widening. The driveway would be shortened and its tie-in to MD 5 would be reconstructed but access to the property would be maintained. Alternative 3 (alone or with all three options) was determined to have no adverse effect on Buena Vista under Section 106. Since there would be a physical use of this historic property and that use was determined to result in no adverse effect to the resource, the Section 4(f) use would have a *de minimis* impact.

The Section 4(f) use of Buena Vista under Alternative 4, Alternative 4 with Option 2, Alternative 4 with Option 3, and Alternative 4 with Option 4 would be nearly identical to that of Alternative 3 (**Figure IV-6**). Minor differences in the proposed improvements along MD 5 in the vicinity of the property due to the inclusion of a median instead of a center turn lane result in a slightly greater encroachment onto Buena Vista totaling approximately 0.09 acre. The affected area would be approximately 80 feet long and 40 to 50 feet wide. The direct impacts to the driveway, vegetation, and brick piers would be

the same as those described under Alternative 3; however, Alternative 4 (alone or with all three options) would result in the restriction of access to the property from MD 5 to right-in/right-out only. Alternative 4, Alternative 4 with Option 2, Alternative 4 with Option 3, and Alternative 4 with Option 4 were determined to have no adverse effect on Buena Vista under Section 106. Since there would be a physical use of this historic property and that use was determined to result in no adverse effect to the resource, the Section 4(f) use would have a *de minimis* impact.

F. Avoidance Analysis

Avoidance alternatives are those that avoid all Section 4(f) uses within the corridor. An analysis of alternatives that avoid the use of Section 4(f) properties is required when Section 4(f) uses that do not have *de minimis* impacts are present. Such an analysis was undertaken for Section 4(f) use of the Drury-Saunders House associated with Option 3 of this project. Three avoidance alternatives were identified. These include the No-Build alternative, Relocation of MD 5, and Realignment of MD 5 Within the Existing Corridor. Each of these avoidance alternatives was evaluated to determine if it would be a feasible and prudent avoidance alternative as defined in 23 CFR 774.17.

Alternative 1: No-Build - Alternative 1, the No-Build Alternative would completely avoid all Section 4(f) properties. At the MD 5/MD 245 intersection (in the vicinity of the Drury-Saunders House), the No-Build Alternative would not meet the project's need to provide adequate intersection capacity. As such, Alternative 1 (No-Build) would not be feasible and prudent because it would compromise the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need. Therefore, Alternative 1 (No-Build) was eliminated because it "causes other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property."

Relocation of MD 5 - Avoidance of the Section 4(f) use of the Drury-Saunders House could be achieved by relocating MD 5 on a new alignment to the north or south of its current location. However, based on the location of the Drury-Saunders property and the St. Mary's Academy, relocation of the roadway by over 400 feet to the north would be

necessary to achieve complete avoidance. A shift of this magnitude would require a deviation from the existing baseline of MD 5 that would extend a considerable distance to both the east and the west and would place a new roadway on land that is currently not in transportation use.

A preliminary investigation of the surrounding land uses shows that this deviation would require impacts to undeveloped and agricultural properties in the western and central portions of the study area and would impact several commercial and institutional properties in the eastern portion of the study area. Possible impacts of this type of relocation would include the acquisition of new right-of-way and the bisection of properties and could also potentially include impacts to existing parking lots and commercial displacements.

For these reasons, Relocation of MD 5 would not be feasible and prudent because it would compromise the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need and would also cause severe social, economic or environmental impacts. Therefore, Relocation of MD 5 to a New Alignment was eliminated because it "causes other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property."

Realignment of MD 5 Within the Existing Corridor - This avoidance alternative is partially based on a similar option (Option 1) that was considered in the preliminary stages of the project and eliminated due to the large number of displacements it would require. Option 1 proposed avoiding the Section 4(f) uses along the entire corridor by realigning the baseline of MD 5 to shift the roadway away from the various Section 4(f) properties. Option 1, as presented early in the project, did not propose avoidance of the Drury-Saunders House because avoidance of this resource would preclude the addition of a right-turn lane along MD 245 that is needed to improve the operation of the intersection. Without the addition of the right turn lane, the intersection would continue to operate at a level of service 'F'.

The Realignment of MD 5 Within the Existing Corridor alternative considered in this Section 4(f) evaluation proposes avoiding the Drury Saunders House by realigning the

baseline of MD 5 to the south of its existing centerline and minimizing improvements to the MD 5/MD 245 intersection. The realignment of the baseline necessary to avoid the Drury-Saunders House would require the reconstruction of the intersection and would preclude the needed widening of MD 245 to include an additional right-turn lane. In addition, as many as three to five additional residential and business displacements (as compared to Alternatives 3 and 4) along the south side of existing MD 5 would be necessary.

For these reasons, Realignment of MD 5 Within the Existing Corridor would not be feasible and prudent because it would cause severe social, economic or environmental impacts. Therefore, Realignment of MD 5 Within the Existing Corridor was eliminated because it "causes other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property."

Avoidance Analysis Findings - Based on the above analysis, all of the avoidance alternatives considered in this Section 4(f) evaluation would "causes other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property."

G. Least Overall Harm

Pursuant to 23 CFR 774.3(c)(1), if the avoidance analysis determines that there is no feasible and prudent avoidance alternative, then only the alternative that causes the least overall harm may be approved. A comparative analysis of the project alternatives was conducted to identify the alternative that would result in the least overall harm to Section 4(f) properties. This analysis is based upon the seven factors identified in 23 CFR 774.3(c)(1). **Table IV-2**, located at the end of this evaluation, presents a summary comparison of the alternatives by each least overall harm evaluation factor. Since this analysis may change as a result of input received from the public or the officials with jurisdiction, the identification of the least overall harm alternative has been reserved for the Final Section 4(f) Evaluation.

H. All Possible Planning to Minimize Harm

Section 4(f) requires that all possible planning to minimize harm to section 4(f) properties be included in a project before it may be approved by the FHWA. “All possible planning” includes all reasonable measures to minimize harm and mitigate for adverse impacts and effects. It does not require analysis of feasible and prudent avoidance alternatives. The avoidance analysis has already occurred in the context of searching for alternatives that avoid Section 4(f) properties altogether, pursuant to 23 CFR 774.17. For this Draft Section 4(f) Evaluation, possible planning to minimize harm has been included for the alternatives currently under consideration and is documented in this section; however, the determination of whether all possible planning has occurred has been reserved for the Final Section 4(f) Evaluation.

During the development of the project alternatives, it was recognized that possible planning to minimize harm to Section 4(f) properties could be achieved in this corridor through various measures. These include minor alignment shifts as well as measures to minimize the footprint of the roadway in the vicinity of Section 4(f) properties. Where possible, these measures have been incorporated into the current design of the alternatives. The following describes the numerous measures that were considered and identifies which were incorporated and which were eliminated from consideration.

Minor Alignment Shifts

Minor alignment shifts in the vicinity of the Section 4(f) properties along MD 5 in the study area were evaluated to determine if the encroachment of the current alternatives into each 4(f) property could be avoided or minimized. An alignment shift in the vicinity of the Port of Leonardtown considered shifting the alignment of MD 5 to the north. This alignment shift was evaluated during the development of project alternatives as part of Option 1 - Section 4(f) Minimization. Option 1 was eliminated from consideration due to the magnitude of displacements that it would cause elsewhere in the corridor. In the vicinity of the Port of Leonardtown, it was determined that a shift of the roadway alignment to the north would result in impacts to the CVS Pharmacy property as well as impacts to a stream and an existing SWM facility that exist on the north side of MD 5. In

addition, a shift of the alignment to the north would result in the need to reconstruct the MD 5/MD 243 intersection because the distance between the intersection and Port of Leonardtown would not allow enough space to incorporate the shift without moving the intersection slightly to the north. Because of the impacts to the environmental resources and the additional cost of the modifications to the MD 5/MD 243 intersection, this alignment shift was not included in the current alternatives.

Option 1 - Section 4(f) Minimization also included a shift of the alignment of MD 5 to the south that would avoid the Section 4(f) uses of Gough Farm and Buena Vista. This alignment shift was determined to result in the displacement of 22 businesses along the south side of MD 5. This number of displacements was substantially higher than that which would occur under any of the other build alternatives. For this reason, this shift was not included in the design.

A similar shift that only avoids the Section 4(f) use of Gough Farm was also considered. This shift realigned MD 5 to the south in the vicinity of Gough Farm and tied back into the existing alignment of the roadway near the driveway to Buena Vista. This alignment shift does not avoid the Section 4(f) use of Buena Vista, but it limits the number of displacements and avoids impacts to the stream that runs parallel to the north side of MD 5. This alignment shift was incorporated into the project and is currently under consideration as Option 2: Stream Avoidance.

In the vicinity of the Drury-Saunders House and St. Mary's Academy, a southern shift of the alignment of MD 5 was considered as part of Option 1 - Section 4(f) Minimization. This shift would minimize the use of these two Section 4(f) properties but would not avoid them completely because the proposed improvements along MD 245 would also result in the use of those properties. An assessment of this alignment shift as part of this Section 4(f) Evaluation concluded that shifting the alignment to the south would result in up to five additional residential and business displacements along the south side of MD 5 as well as impacts to the Father White School located in the southeastern quadrant of the intersection. Due to the potential impacts of this alignment shift, it was not included in the project.

Shifts in the alignment of MD 245 to the east and to the west to avoid the Drury-Saunders House and St. Mary's Academy, respectively, were considered as part of this Section 4(f) Evaluation. A shift to the east would avoid the Drury-Saunders house, but increase the Section 4(f) use of St. Mary's Academy. Likewise, a shift to the west would avoid St. Mary's Academy, but increase the use of the Drury-Saunders House. In addition, shifting MD 245 to the east would require realignment of the intersection with MD 5 and would result in impacts to the Father White School. Therefore, these alignment shifts were not incorporated into the design of the project.

Measures to Minimize the Roadway Footprint

As part of this Section 4(f) Evaluation, additional measures that would reduce the footprint of the roadway in the vicinity of Section 4(f) properties were assessed. Overall, it was determined that it would not be possible to reduce the number of travel lanes and turn lanes throughout the corridor without compromising the project's ability to meet its stated purpose of improving traffic operations.

Additionally, the current design of each build alternative has incorporated minimum lane and shoulder widths. The American Association of State Highway and Transportation Officials (AASHTO) recommend lane widths of 12 feet for roadways of this type. The project alternatives currently include 11 foot lanes in order to provide a slightly wider shoulder that will accommodate buggies that are used by the local Amish population.

The width of the median was also evaluated to determine if it would be possible to reduce the median to avoid or minimize the use of Section 4(f) properties. For the alternatives and options that include a median, it was determined that the median width could not be further reduced because it would no longer comply with the standards of the Americans with Disabilities Act (ADA).

Lastly, the potential to reduce the footprint of the roadway by incorporating retaining walls to limit the extent of roadside grading was assessed. It was determined that it would not be possible to place a retaining wall in the vicinity of Gough Farm, Buena Vista, or the Drury-Saunders House because the walls would cut off the driveways to

each property. In the vicinity of St. Mary's Academy, there is no Section 4(f) use along the south side of the property and the grade along the west side of the property is relatively flat. Therefore, a retaining wall in this location would result in only a negligible reduction in the amount of Section 4(f) property used. A retaining wall was found to be possible in the vicinity of the Port of Leonardtown. This wall has been incorporated into the design of the alternatives.

Mitigation

The only Section 4(f) resource potentially impacted by the project is the Drury-Saunders House (SM-540), which would be demolished under Alternative 3 with Option 3 and Alternative 4 with Option 3. SHA determined that these options would have an adverse effect on this eligible historic resource; the Maryland State Historic Preservation Officer (MD SHPO) concurred in this finding on April 18, 2012. Should either of these alternatives be selected, specific mitigation measures will be determined in consultation with the MD SHPO and with consideration of the views of any other relevant consulting parties participating in the Section 106 process. Therefore, specific mitigation is not identified in this Draft Section 4(f) Evaluation, but it will be presented in the Final Section 4(f) Evaluation.

I. Coordination

As part of the process followed to demonstrate compliance with Section 106 of the National Historic Preservation Act, coordination with the Maryland Historical Trust (MHT) took place throughout the early stages of this project. The SHA identified potentially eligible historic properties within the project's area of potential effects, evaluated each property, and determined if each was listed or eligible for listing in the NRHP. SHA's eligibility determinations were coordinated with the MHT. On February 18 and March 26, 2008, the MHT concurred that the five properties included in this Draft Section 4(f) Evaluation were either listed or eligible for listing in the NRHP.

On May 27, 2009, the SHA sent additional correspondence to the MHT requesting concurrence with the SHA's determination of the effects of the project's alternatives on

the five historic properties in the area of potential effects (see *Appendix B*). In this letter, the SHA also informed the MHT of its intent to request that the Federal Highway Administration make a *de minimis* impact finding for the minor Section 4(f) uses of the Old SHA Garages (the Port of Leonardtown), Old Gough Farm (Gough Farm), Buena Vista, and St. Mary's Academy. The MHT concurred with the SHA's effect determinations on July 16, 2009.

Additional coordination with the MHT took place in. On September 27, 2011, the MHT concurred that three archeological sites identified in the project area are not eligible for listing in the NRHP. The MHT also concurred that the project's impacts on historic standing structures remained unchanged since the previous consultation in 2009.

By carbon copy of its May 27, 2009 letter to the MHT, the SHA also invited the St. Mary's County Department of Land Use and Growth Management and the St. Mary's County Historic Preservation Commission to provide comments and participate in the Section 106 process. In a letter dated June 30, 2009, the St. Mary's County Historic Preservation Commission provided comments in support of Alternative 2, TSM.

The SHA coordinated with the Town of Leonardtown regarding the Port of Leonardtown property, which, in addition to being historic, has been converted to use as a public park. In a letter dated February 21, 2012, the SHA requested that the Town of Leonardtown indicate if the Port of Leonardtown property is "significant" (as defined in FHWA's Section 4(f) Policy Paper). In the same letter, the SHA informed the Town of Leonardtown of its intent to request that the FHWA make a *de minimis* impact finding for the Port of Leonardtown. In a response dated March 8, 2012, the Town of Leonardtown indicated that the Port of Leonardtown property is "significant" and concurred that the project would not adversely affect the activities, features, or attributes that make the property eligible for Section 4(f) protection.

Table IV-2: Least Overall Harm Analysis

| 23 CFR 774.3(c)(1) Factor | Alternative 2 | Alternative 3 | Alternative 4 | Option 2 | Option 3 | Option 4 | Preliminary Conclusion |
|---|---|--|--|---|--|--|---|
| i. The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property) | Reasonable ability to mitigate minor impacts to 3 Section 4(f) properties. | Reasonable ability to mitigate minor impacts to 5 Section 4(f) properties. | Reasonable ability to mitigate minor impacts to 5 Section 4(f) properties. | Reasonable ability to mitigate minor impacts to 4 Section 4(f) properties. | Difficulty mitigating for displacement of Drury-Saunders House | Reasonable ability to mitigate minor impacts to 5 Section 4(f) properties. | Alternatives 2, 3, and 4 and Options 2 and 4 would have substantially equal ability to mitigate adverse impacts. Option 3 would have the least ability to mitigate adverse impacts due to the displacement of the Drury-Saunders House. |
| ii. The relative severity of the remaining harm, after mitigation, to the protected activities, attributes or features that qualify each Section 4(f) property for protection | <i>De minimis</i> impacts to 3 Section 4(f) properties. Avoids 2 Section 4(f) properties. | <i>De minimis</i> impacts to 5 Section 4(f) properties | <i>De minimis</i> impacts to 5 Section 4(f) properties | <i>De minimis</i> impacts to 4 Section 4(f) properties. Avoids 1 Section 4(f) property. | <i>De minimis</i> impacts to 4 Section 4(f) properties. Severe impact to Drury Saunders House. | <i>De minimis</i> impacts to 5 Section 4(f) properties | Alternatives 2, 3, and 4 and Options 2 and 4 result in <i>de minimis</i> impacts to all Section 4(f) properties and are all substantially equal. Option 3 results in greater than <i>de minimis</i> impacts and would cause severe harm to the Drury-Saunders House |
| iii. The relative significance of each Section 4(f) property | All 3 Section 4(f) properties are considered to be equally significant | All Section 4(f) properties are considered to be equally significant | All Section 4(f) properties are considered to be equally significant | All Section 4(f) properties are considered to be equally significant | All Section 4(f) properties are considered to be equally significant | All Section 4(f) properties are considered to be equally significant | The resources have equal significance; therefore, the options are substantially equal for this analysis factor. |

| | | | | | | | |
|--|--|--|--|---|--|--|---|
| iv. The views of the officials with jurisdiction over each Section 4(f) property | MHT concurred with No Adverse Effect finding for all 3 properties | MHT concurred with No Adverse Effect finding for all properties | MHT concurred with No Adverse Effect finding for all properties | MHT concurred with No Adverse Effect finding for all properties | MHT concurred with No Adverse Effect finding for all properties except Drury-Saunders House | MHT concurred with No Adverse Effect finding for all properties | Alternatives 2, 3, and 4 and Options 2 and 4 result in no adverse impacts to historic properties and are all substantially equal. Option 3 results in an adverse effect and would be the least favorable. |
| v. The degree to which each alternative meets the purpose and need for the project | Partially meets purpose and need - addresses intersection capacity but does not address mainline | Meets purpose and need | Meets purpose and need | Meets purpose and need | Meets purpose and need and provides additional intersection capacity at MD 5/MD 245 | Meets purpose and need | Option 3 best meets purpose and need. Alternatives 3 and 4 and Options 2 and 4 adequately address the purpose and need. Alternative 2 only partially meets the purpose and need. |
| vi. After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f) | 2 residential displacements; 4 commercial displacements; minor stream, forest, wetland, and floodplain impacts | 2 residential displacements; 4 commercial displacements; minor stream, forest, wetland, and floodplain impacts | 2 residential displacements; 5 commercial displacements; minor stream, forest, wetland, and floodplain impacts | 2 residential displacements; 10 commercial displacements; minor stream, forest, wetland, and floodplain impacts | 5 residential displacements; 6 commercial displacements; minor stream, forest, wetland, and floodplain impacts | 2 residential displacements; 5 commercial displacements; minor stream, forest, wetland, and floodplain impacts | Alternative 2 requires the least impact to other environmental resources. Alternatives 3 and 4 and Option 4 have substantially equal impacts, which are somewhat more severe than Alternative 2. Options 2 and 3 have the greatest impact to environmental resources. |
| vii. Substantial differences in cost among the alternatives | \$114 million - \$142 million | \$142 million - \$176 million | \$150 million - \$187 million | \$180 million - \$225 million | \$172 million - \$214 million | not available | Alternative 2 is the least costly; Alternatives 3 and 4 are substantially equal and slightly greater than Alternative 2; Options 2 and 3 are substantially equal and slightly greater than Alternatives 2, 3, and 4. |

V. COMMENTS AND COORDINATION

Coordination with cooperating agencies, environmental resource agencies, organizations, community associations, and the public has been an important component of the MD 5 Project. This section summarizes the coordination efforts, and *Appendix B* contains copies of the correspondence noted in Tables V-1 through V-4.

A. Streamlined Process Coordination

1. Purpose and Need

The Purpose and Need Statement for the MD 5 Project Planning Study was presented to the agencies for review and comment in November 2007. Each agency concurred with the Purpose and Need. Table V-1 provides a list of the agency correspondence regarding the statement of Purpose and Need.

Table V-1: Purpose and Need Coordination

| Correspondence | To | From | Date |
|---------------------------------|-----|--------|------------|
| Concurrence on Purpose and Need | SHA | FHWA | 11/28/2007 |
| | | COE | 01/19/2008 |
| | | USFWS | 11/08/2007 |
| | | EPA | 01/08/2008 |
| | | NPS | 02/25/2008 |
| | | NMFS | 12/02/2007 |
| | | MDP | 11/09/2007 |
| | | MDE | 02/15/2008 |
| | | MHT | 01/08/2008 |
| | | MD DNR | 03/03/2008 |

2. Alternatives Retained for Detailed Study

The Alternatives Retained for Detailed Study (ARDS) were presented to the agencies for review and comment in January 2009. Each agency concurred with minor comments. Table V-2 provides a list of the agency correspondence regarding the ARDS.

The Maryland Department of Planning provided comments related to existing and planned development in the Leonardtown area and encouraged SHA to work with St. Mary's County to plan and build a well connected local roadway network along the MD 4 corridor. Land Use and

planned development have been incorporated into the purpose and need for the project and described in more detail in Section I of this document.

The Maryland Department of Natural Resources provided comments related the analysis of habitat and species data in regards to the alternate selection process, and that avoidance guidelines and requirements must be met for any impacts to rare, threatened or endangered species. The USFWS provided similar comments, which noted the proximity of the red turtlehead and deciduous holly with respect to the project area. Coordination continued with the Maryland DNR regarding rare, threatened, or endangered species and aquatic resources within the project area, and detailed studies were performed to identify and delineate sensitive areas (refer to Section III of this document).

The MDE provided comments regarding the provisions public outreach for the Amish community, level of service at the Clarks Rest/Tudor Hall intersection, and business and residential displacements. Section I of this document discusses traffic volumes and Section III discusses socio-economic impacts and land use considerations.

Table V-2: Alternatives Retained for Detailed Study Coordination

| Correspondence | To | From | Date |
|---|-----------|-------------|-------------|
| Concurrence with no Comments on ARDS | SHA | FHWA | 01/27/2009 |
| Concurrence with no Comments on ARDS | | COE | 02/12/2009 |
| Concurrence with minor Comments on ARDS | | USFWS | 11/24/2008 |
| Concurrence with no Comments on ARDS | | EPA | 03/18/2009 |
| Concurrence with no Comments on ARDS | | NPS | 11/21/2008 |
| Concurrence with no Comments on ARDS | | NMFS | 12/29/2008 |
| Concurrence with Comments on ARDS | | MDP | 02/12/2009 |
| Concurrence with minor Comments on ARDS | | MDE | 12/15/2008 |
| Concurrence with no Comments on ARDS | | MHT | 02/12/2009 |
| Concurrence with Comments on ARDS | | MD DNR | 06/04/2009 |

3. Regulatory Agency Coordination

Additional agency coordination and correspondence is listed in Table V-3.

Table V-3: Agency Correspondence

| Correspondence | To | From | Date |
|---|---|--|-------------|
| Environmental Review Response | SHA | MD DNR (ERU) | 03/09/2007 |
| Environmental Review Response | SHA | MD DNR (W&H) | 06/22/2007 |
| Environmental Review Response | SHA | USFWS | 03/08/2007 |
| Wetlands and Rare Species Occurrence Response | SHA | DNR (W&H) | 07/28/2009 |
| Eligibility and Effects Concurrence | MHT | SHA | 05/27/2009 |
| MHT Concurrence on Adverse Effects | SHA | MHT | 07/16/2009 |
| Archival and Remote Sensing of St. Paul's Methodist Church Cemetery | SHA | St. Mary's County | 01/15/2008 |
| Alternative 2 (TSM) Preferred Alternative due to avoidance of historic properties | SHA | St. Mary's County | 06/30/2009 |
| Emergency Service Responder Request | St. Mary's Hospital | SHA | 04/08/2009 |
| Emergency Service Responder Request | St. Mary's County Department of Public Safety | SHA | 04/08/2009 |
| Emergency Service Responder Request | St. Mary's County Fire Board Association | SHA | 04/08/2009 |
| Emergency Service Responder Request | Maryland State Police | SHA | 04/08/2009 |
| Emergency Service Responder Request | St. Mary's County Sherriff's Office | SHA | 04/08/2009 |
| Emergency Service Response | SHA | St. Mary's County Dept. of Public Safety | 07/08/2009 |
| Comments on Emergency Service Response to St. Mary's Hospital | SHA | St. Mary's Hospital | 04/30/2009 |
| Comments on Emergency Service Response to St. Mary's Hospital | SHA | St. Mary's Hospital | 05/1/2009 |
| SHA Response to St. Mary's Hospital Comments | St. Mary's Hospital | SHA | 07/13/2009 |
| Submission of Request Traffic Data to St. Mary's Hospital | St. Mary's Hospital | SHA | 08/04/2009 |
| <i>Di minimis</i> request for impacts to the Port of Leonardtown | Commissioners of Leonardtown | SHA | 02/29/2012 |
| Concurrence of <i>Di minimis</i> for impacts to the Port of Leonardtown | SHA | Commissioners of Leonardtown | 03/08/2012 |

4. Streamlined Process Meeting Minutes

Meetings were held with local, state, and federal agencies at critical points in the project planning process to keep the involved parties informed and solicit feedback. These meetings are listed in Table V-4 and the minutes from them are included in **Appendix B**.

Table IV-4: Streamlined Process Meeting Minutes

| Meeting | Purpose | Date | Agencies in Attendance |
|--|--|-------------|---|
| Town of Leonardtown Coordination Meeting | Discuss ongoing development activities proposed in the corridor, open communication with developers and the Town of Leonardtown and discuss project scope and schedule | 03/05/2007 | SHA, Town of Leonardtown |
| Elected Officials Briefing | Provide an overview of the project purpose and need, existing project constraints, planning process and schedule. | 11/13/2007 | SHA, Leonardtown Commissioners, St. Mary's County Commissioners |

B. Elected Officials Correspondence

Throughout the project planning process, SHA has been coordinating with local Elected Officials regarding their constituent's comments, questions and concerns. Correspondence to and from local Elected Officials can be found in *Appendix B*.

C. Public Coordination/Comments

1. Public Meeting

A MD 5 Informational Project Planning Study was held at Leonardtown Middle School (24015 Point Lookout Road, Leonardtown, Maryland) on December 11, 2007 from 5:00 PM – 8:00 PM. At the meeting, residents and other community representatives had an opportunity to ask questions, review, and comment on the purpose and need and schedule of the project. Approximately 70 people attended. Comment cards were provided to all attendees to complete and submit to SHA during or following the workshop. The majority both written and verbal comments received at the public meeting are summarized below.

- Safety as the number one concern in the corridor.
- Concerns about excessive speed, difficulty making left turns onto and from MD 5, pedestrian and bicyclist safety, and lack of traffic signals along the corridor.
- The intersection of Moakley/Abell Streets and MD 5 was identified as the location with the most traffic problems, and the area around the hospital entrance was also identified as an area with traffic problems.
- Need to provide improvements quickly, to add traffic signals in the corridor, and to provide a center-turn lane.
- Preserving the community character and reducing property impacts.

2. Public Open House

The second general public meeting, an Open House was held on Wednesday, December 10, 2008 (from 3:00 PM to 7:00 PM), at the Leonardtown Volunteer Fire Department Fire Hall. Approximately 75 people attended and many provided spoken and written comments. The purpose of the meeting was to present the alternatives under consideration and gather public comments. Major issues included the need for a traffic signal at the MD 5 intersection with Abell/Moakley Streets, the need to slow traffic, the need to address safety at the various entrances along MD 5 (e.g., access points to the hospital, nursing home, Breton Market Place, church/cemetery, College of Southern Maryland), the desire for minimizing impacts on (displacement of) residences along MD 5, and the need to maintain safe left turns.

3. Community Outreach

a. Project Newsletters

In the Fall of 2007 and again in 2008, project newsletters were mailed to local residents, businesses and interested stakeholders. The first newsletter provided a comment card to solicit public input on the proposed project. Approximately 300 completed survey responses were received. Many survey comments mirror the comments received at the December 11, 2007 Informational meeting. Safety and the inability to make turns across traffic, especially during rush hours, were listed as the top concerns for the corridor. Many surveys requested increased speed enforcement or lowering the speed limit in the corridor, and others identified the stretch from Moakley/Abell Streets south to MD 245 as the area with the most traffic problems. Copies of the mailed newsletters can be found in *Attachment B*.

b. Old Order Mennonite and Amish Community Outreach

St. Mary's County is home to an Amish Community of at least 350 families as well Old Order Mennonite communities, which both use horse-and-buggies as their primary mode of transportation. Although these communities are outside the study area and will experience no property impacts, members of the Old Order communities frequently travel the MD 5 project corridor to access commercial establishments and government services and reach other destinations outside the study area. SHA conducted outreach to the Old Order communities through coordination with county officials (Mr. Ben Bealle of the St. Mary's County

Cooperative Extension). Coordination efforts identified issues of concern for the Old Order Communities, including:

- Conflicts with vehicular traffic exist at the right-turn lane onto MD 243 (area lacks a shoulder). Community would like SHA to consider continuing the shoulder through the MD 5/MD 243 intersection.
- Insufficient roadway shoulder width forces buggies to travel in the right-hand lane, which holds up traffic. The buggies are the standard six-foot wide carriages, and the buggy drivers expressed a preference for shoulders at least seven feet wide, noting that eight-foot shoulders would give them greater flexibility in making turns. Community would like SHA to consider a shoulder for horse-and-buggy travel at least up to Abell/Moakley Streets.
- MD 5/Moakley Street intersection is difficult to use, even for motorized vehicles. Buggy drivers would prefer to turn left on Moakley Street to access the hospital and government services.
- No alternate route exists to take Abell Street to MD 5 Business and access to MD 5 Business is difficult. Community would like SHA to consider an alternate route for horse-and-buggy travel south of Abell/Moakley Streets.
- Buggy-hauling wagons travel slowly and Old Order farmers consider it dangerous to access a farmers market in the MD 5 Business corridor. Community would like safe travel for horse-and-buggy along MD 5 Business, where streetscape project is underway.
- Buggy wheels sometimes get caught in the grilles of roadside drainage grates. Community would prefer that drainage grates be oriented with grilles perpendicular to the direction of travel.
- Cars sometimes drive on roadway shoulders, especially when passing left-turning vehicles. This practice creates a dangerous situation when a car crests a hill and unexpectedly finds a horse-and-buggy on the shoulder. Community would like SHA to consider posting signs stating that shoulders are for bicycles, horse-and-buggies, and emergency use only.

On December 2, 2011, the MD 5 Project Team attended an Amish auction in the town of Loveville to share project-related information and gain input on traffic concerns specific to the Amish and Mennonite community. The team also surveyed several members of the community

during the event, and provided the auction reception desk with self-addressed surveys that could be mailed to SHA at a later date by future auction attendees.

Respondents included members of the Amish, Old Order Mennonite, and Eastern Mennonite communities who have traveled along MD 5, MD 245, and MD 243 by horse and buggy and/or other means. While most attendees were local to this area of Leonardtown, the team also spoke with members of the community that were visiting relatives but had traveled along MD 5. Commonly-cited concerns including the following:

- The PNC Bank and the area surrounding it, a common destination for locals, is very difficult to access and navigate by horse and buggy. The area has seen multiple horse and buggy accidents, and several respondents have had to find other means of accessing the bank, including parking buggies at a nearby shopping center and walking along MD 5. Two respondents planned to change banks due to the inconvenience. Making a left out of the bank was also mentioned as a concern.
- The signal at the intersection of MD 5 and Maypole Road is not sensitive to buggies, and changes too quickly when a buggy is not directly behind a motor vehicle. If a buggy is first at the light, the light changes without sensing its presence. Many respondents felt this was due to the buggies not having an adequate metal content for the sensors.
- Due to narrow shoulders and traffic congestion, several members of the community have resorted to walking, riding the STS bus, and other means of transportation in order to access both daily and occasional destinations such as the Leonardtown Shopping Center, Food Lion grocery store, Wal-mart, PNC Bank, Reynold's Pharmacy, and area schools, post office, and funeral home.
- Signage is not adequate along MD 5 and MD 235. Where MD 5 and MD 235 begin and end is confusing, and the two routes are difficult to differentiate with the current signage. This was brought to the team's attention by both locals and out-of-town Amish who had had difficulty navigating the area.
- The area nursing home and hospital off of Moakley Street were difficult to access due to congestion. Wider medians and shoulders were recommended.
- Due to curvature in the road, it is difficult for horse and buggy users to safely to access MD 5, MD 245, and MD 243 from side roads along the routes.
- It was recommended that the team install guardrails on traffic side of the sidewalk across the bridge.

- The intersection of MD 5 and MD 245 was cited as being dangerous for buggies.
- Several respondents preferred Alternative 4 to Alternative 3.

As part of the survey, Amish and Mennonite respondents were asked to rate their experience in five areas of concern along MD 5 in Leonardtown: making left turns, entering MD 5, congested intersections, lack of room for horse and buggies, and motorized vehicle speed. Of seven respondents completing this portion of the survey and rating their experiences in these areas from 1 (no problem) to 4 (serious problem), five felt that making left turns along the corridor was a serious problem. Three respondents indicated that motorized vehicle speed was the most significant traffic issue, and four were most concerned with congested intersections and/or lack of room for horse and buggies. Another two felt that all five issues were of great significance. Those citing the above traffic issues as their biggest concerns were also concerned with the remaining issues included on the survey, but to a lesser degree.

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Appendix A

Uniform Relocation Assistance Act

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

All State Highway Administration projects utilizing Federal funds must comply with the provisions of the Uniform Relocation and Real Property Acquisition Policies Act of 1970 (42 USC 4601) as amended by Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17), Public Law 105-117 in 1997, and Title 49 CFR Part 24 in 2005. State-funded projects must comply with Sections 12-112 and Subtitle 2, Sections 12-201 to 12-212, of the Real Property Article of the Annotated Code of Maryland.

The State Highway Administration's Office of Real Estate administers the Relocation Assistance Program for the Maryland Department of Transportation.

The aforementioned Federal and State laws require that the State Highway Administration provide relocation assistance payments and advisory services to eligible persons who are displaced by a public project. There are two categories of residential occupants: 180-day owner-occupants and 90-day tenants and short-term owner-occupants. Non-residential occupants may be businesses, farms or non-profit organizations.

A displaced person that has owned and occupied a subject dwelling for at least 180 days prior to the initiation of negotiations for the property may receive a replacement housing payment of up to \$22,500. The replacement housing payment is composed of three parts: a purchase price differential; an increased mortgage interest differential; and reimbursement for incidental settlement expenses.

The purchase price differential is the difference between the value paid by the State Highway Administration for the existing dwelling and the cost to the displaced owner of a comparable replacement dwelling, as determined by the State's replacement housing study.

The increased mortgage interest differential is a payment made to the owner at the time of settlement on the replacement dwelling to negate the effects of less favorable financing in the new situation. The payment is calculated by use of the "buy-down" mortgage method.

Reimbursable incidental expenses are necessary and reasonable incidental costs that are incurred by the displaced person in purchasing a replacement dwelling, excluding pre-paid expenses such as real estate taxes and insurance. The maximum reimbursable amount for these incidental expenses is based upon the cost of the comparable selected in the replacement housing study.

A displaced person who has leased and occupied a subject dwelling for at least 90 days prior to the initiation of negotiations for the property may receive a replacement rental housing payment of up to \$5,250. The replacement rental housing payment is the difference between the

monthly cost of housing for the subject dwelling, plus utilities, and the monthly cost of housing for a comparable replacement rental unit, plus utilities, over a period of 42 months. Owner-occupants of 90-179 days prior to the initiation of negotiations for the subject dwelling are eligible for the same replacement rental housing payments as tenants.

As an alternative to renting, a displaced tenant-occupant may elect to apply the rental replacement housing eligibility amount toward the down payment needed to purchase a replacement dwelling.

The comparable properties used in calculating any replacement housing payment eligibility must comply with all local standards for decent, safe and sanitary (DS&S) housing and be within the financial means of the displaced person.

If affordable, comparable DS&S replacement housing cannot be provided within the statutory maximums of \$22,500 for 180-day owner-occupants or \$5,250 for 90-day tenants or short-term owners, the maximums may be exceeded on a case-by-case basis. This may only be done after the completion and approval of a detailed study that documents the housing problem, explores the available replacement options and selects the most feasible and cost-effective alternative for implementation.

In addition, eligible displaced residential occupants may be reimbursed for the expense of moving personal property up to a maximum distance of fifty (50) miles, using either an actual cost or fixed schedule method.

Actual cost moves are based upon the lower of at least two commercial moving estimates and must be documented with receipted bills or invoices. Other incidental moving expenses, such as utility reconnection charges, may also be paid in the same manner.

As an alternative method, the fixed schedule move offers a lump sum, all-inclusive payment based upon the number of rooms to be moved. Other incidental costs are not separately reimbursable with this method.

Non-residential displaced persons such as businesses, farms or non-profit organizations may also receive reimbursement for the expense of relocating and re-establishing operations at a replacement site on either an actual cost or fixed payment basis.

Under the actual cost method, a non-residential displaced person may receive reimbursement for necessary and reasonable expenses for moving its personal property, the loss of tangible personal property that is not moved, the cost of searching for a replacement site and a re-establishment allowance of up to \$10,000.

The actual reasonable moving expenses may be paid for a move by a commercial mover or for a self-move. Payments for the actual reasonable expenses are limited to a 50-mile radius unless the State determines a longer distance is necessary. The expenses claimed for actual cost moves must be supported by firm bids and receipted bills. An inventory of the items to be moved must be prepared in all cases. In self-moves, the State will negotiate an amount for

payment, usually lower than the lowest acceptable bid. The allowable expenses of a self-move may include amounts paid for equipment hired, the cost of using the business vehicles or equipment, wages paid to persons who participate in the move, the cost of actual supervision of the move, replacement insurance for the personal property moved, costs of licenses or permits required and other related expenses.

In addition to the actual moving expenses mentioned above, the displaced business is entitled to receive a payment for the actual direct losses of tangible personal property that the business is entitled to relocate but elects not to move. These payments may only be made after an effort by the owner to sell the personal property involved. The costs of the sale are also reimbursable moving expenses.

If the business elects not to move or to discontinue the use of an item, the payment shall consist of the lesser of: the fair market value of the item for continued use at the displacement site, less the proceeds from its sale; or the estimated cost of moving the item.

If an item of personal property which is used as part of a business or farm operation is not moved and is promptly replaced with a substitute item that performs a comparable function at the replacement site, payment shall be the lesser of: the cost of the substitute item, including installation costs at the replacement site, minus any proceeds from the sale or trade-in of the replaced item; or the estimated cost of moving and reinstalling the replaced item.

In addition to the moving payments described above, a business may be eligible for a payment up to \$10,000 for the actual reasonable and necessary expenses of re-establishing at the replacement site. Generally, re-establishment expenses include certain repairs and improvements to the replacement site, increased operating costs, exterior signing, advertising the replacement location, and other fees paid to re-establish. Receipted bills and other evidence of these expenses are required for payment. The total maximum re-establishment payment eligibility is \$10,000.

In lieu of all moving payments described above, a business may elect to receive a fixed payment equal to the average annual net earnings of the business. This payment shall not be less than \$1,000 nor more than \$20,000. In order to be entitled to this payment, the State must determine that the business cannot be relocated without a substantial loss of its existing patronage; the business is not part of a commercial enterprise having more than three other establishments in the same or similar business that are not being acquired; and the business contributes materially to the income of a displaced owner during the two taxable years prior to the year of the displacement. A business operated at the displacement site solely for the purpose of renting to others is not eligible. Considerations in the State's determination of loss of existing patronage are the type of business conducted by the displaced business and the nature of the clientele. The relative importance of the present and proposed locations to the displaced business and the availability of suitable replacement sites are also factors.

In order to determine the amount of the "in lieu of" moving expense payment, the average annual net earnings of the business is to be one-half of the net earnings before taxes during the two taxable years immediately preceding the taxable year in which the business is relocated. If the two taxable years are not representative, the State may use another two-year

period that would be more representative. Average annual net earnings include any compensation paid by the business to the owner, owner's spouse, or dependents during the period. Should a business be in operation less than two years, the owner of the business may still be eligible to receive the "in lieu of" payment. In all cases, the owner of the business must provide information to support its net earnings, such as income tax returns, or certified financial statements, for the tax years in question.

Displaced farms and non-profit organizations are also eligible for actual reasonable moving costs up to 50 miles, actual direct losses of tangible personal property, search costs up to \$2,500 and re-establishment expenses up to \$10,000 or a fixed payment "in lieu of" actual moving expenses of \$1,000 to \$20,000. The State may determine that a displaced farm may be paid a minimum of \$1,000 to a maximum of \$20,000 based upon the net income of the farm, provided that the farm has been relocated or the partial acquisition caused a substantial change in the nature of the farm. In some cases, payments "in lieu of" actual moving costs may be made to farm operations that are affected by a partial acquisition. A non-profit organization is eligible to receive a fixed payment or an "in lieu of" actual moving cost payment, in the amount of \$1,000 to \$20,000 based on gross annual revenues less administrative expenses.

A more detailed explanation of the benefits and payments available to displaced persons, businesses, farms and non-profit organizations is available in the brochure entitled, "Relocation Assistance – Your Rights and Benefits," that will be distributed at the public hearing for this project and be given to all displaced persons.

Federal and State laws require that the State Highway Administration shall not proceed with any phase of a project which will cause the relocation of any persons, or proceed with any construction project, until it has furnished satisfactory assurances that the above payments will be provided, and that all displaced persons will be satisfactorily relocated to comparable decent, safe and sanitary housing within their financial means, or that such housing is in place and has been made available to the displaced persons.

In addition, the requirements of Public Law 105-117 provides that a person who is an alien and is not lawfully present in the United States shall not be eligible for relocation payments or other assistance under the Uniform Act. It also directed all State displacing agencies that utilize Federal funds in their projects to implement procedures for compliance with this law in order to safeguard that funding. To this end, displaced persons will be asked to certify to their citizenship or alien status prior to receiving payments or other benefits under the Relocation Assistance Program.

Appendix B

Comments and Coordination Correspondence

PURPOSE AND NEED

| | | |
|---|--|---|
| Project Name & Limits: MD 5: From MD 243 to MD 245 | | |
| Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document): | | |
| <input checked="" type="checkbox"/> Federal Highway Administration <input type="checkbox"/> Environmental Protection Agency | <input type="checkbox"/> Corps of Engineers <input type="checkbox"/> Fish and Wildlife Service | |
| <input checked="" type="checkbox"/> Concurs (without comments) <input type="checkbox"/> Concurs (w/ <u>minor</u> comments) <input type="checkbox"/> Does Not Concur | | |
| Comments / Reasons for Non-Concurrence: | | |
| <i>Note: Please 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.</i> | | |
| <input type="checkbox"/> National Park Service <input type="checkbox"/> National Marine Fisheries Service <input type="checkbox"/> MD Dept. of Natural Resources | <input type="checkbox"/> MD Dept. of the Environment <input type="checkbox"/> MD Department of Planning | <input type="checkbox"/> MD Historical Trust <input type="checkbox"/> Metropolitan Planning Org. |
| <input type="checkbox"/> Provides Comments (below or attached) <input type="checkbox"/> Has No Comments | | |
| Comments: | | |
| Additional Information Needed: | | |
| Signature: <u></u> | | Date: <u>11/28/2007</u> |

440 65 100 10 6200 7

PURPOSE AND NEED

| | |
|--|---|
| Project Name & Limits: MD 5: From MD 243 to MD 245 | |
| Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document): | |
| <input type="checkbox"/> Federal Highway Administration <input type="checkbox"/> Environmental Protection Agency | <input checked="" type="checkbox"/> Corps of Engineers <input type="checkbox"/> Fish and Wildlife Service |
| <input checked="" type="checkbox"/> Concurs (without comments) <input type="checkbox"/> Concurs (w/ <u>minor</u> comments) <input type="checkbox"/> Does Not Concur | |
| Comments / Reasons for Non-Concurrence: | |
| <i>Note: Please 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"/> National Park Service <input type="checkbox"/> National Marine Fisheries Service <input type="checkbox"/> MD Dept. of Natural Resources | <input type="checkbox"/> MD Dept. of the Environment <input type="checkbox"/> MD Department of Planning <input type="checkbox"/> MD Historical Trust <input type="checkbox"/> Metropolitan Planning Org. |
| <input type="checkbox"/> Provides Comments (below or attached) <input type="checkbox"/> Has No Comments | |
| Comments: | |
| Additional Information Needed: | |
| Signature: <u>Kathy Anderson</u> | Date: <u>19 Jan 08</u> |

PURPOSE AND NEED

| | | |
|---|--|---|
| Project Name & Limits: MD 5: From MD 243 to MD 245 | | |
| Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document): | | |
| <input type="checkbox"/> Federal Highway Administration <input type="checkbox"/> Environmental Protection Agency | <input type="checkbox"/> Corps of Engineers <input checked="" type="checkbox"/> Fish and Wildlife 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: | | |
| <i>Note: Please 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.</i> | | |
| <input type="checkbox"/> National Park Service <input type="checkbox"/> National Marine Fisheries Service <input type="checkbox"/> MD Dept. of Natural Resources | <input type="checkbox"/> MD Dept. of the Environment <input type="checkbox"/> MD Department of Planning | <input type="checkbox"/> MD Historical Trust <input type="checkbox"/> Metropolitan Planning Org. |
| <input type="checkbox"/> Provides Comments (below or attached) <input type="checkbox"/> Has No Comments | | |
| Comments: | | |
| Additional Information Needed: | | |
| Signature: <u>William Schults</u> | | Date: <u>11/8/2007</u> |

6/9/00 10:00 AM

PURPOSE AND NEED

| | | |
|---|--|---|
| Project Name & Limits: MD 5: From MD 243 to MD 245 | | |
| Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document): | | |
| <input checked="" type="checkbox"/> Federal Highway Administration <input checked="" type="checkbox"/> Environmental Protection Agency | <input type="checkbox"/> Corps of Engineers <input type="checkbox"/> Fish and Wildlife Service | |
| <input checked="" type="checkbox"/> Concurs (without comments) <input type="checkbox"/> Concurs (w/ <u>minor</u> comments) <input type="checkbox"/> Does Not Concur | | |
| Comments / Reasons for Non-Concurrence: | | |
| <i>Note: Please 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.</i> | | |
| <input type="checkbox"/> National Park Service <input type="checkbox"/> National Marine Fisheries Service <input type="checkbox"/> MD Dept. of Natural Resources | <input type="checkbox"/> MD Dept. of the Environment <input type="checkbox"/> MD Department of Planning | <input type="checkbox"/> MD Historical Trust <input type="checkbox"/> Metropolitan Planning Org. |
| <input type="checkbox"/> Provides Comments (below or attached) <input type="checkbox"/> Has No Comments | | |
| Comments: | | |
| Additional Information Needed: | | |
| Signature: <u> <i>Jim Magan</i> </u> | Date: <u> 1 </u> / <u> 09 </u> / <u> 08 </u> | |

*** TX REPORT ***

TRANSMISSION OK

TX/RX NO 2431
CONNECTION TEL 914102095004
SUBADDRESS
CONNECTION ID
ST. TIME 02/25 13:04
USAGE T 00:17
PGS. SENT 1
RESULT OK

PURPOSE AND NEED

Project Name & Limits: MD 5 From MD 243 to MD 245

Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document):

Federal Highway Administration Corps of Engineers
 Environmental Protection Agency Fish and Wildlife Service

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

Comments / Reasons for Non-Concurrence:

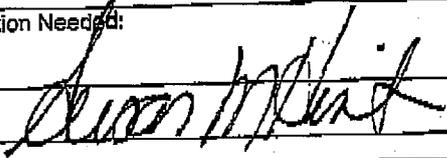
Note: Please do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

National Park Service MD Dept. of the Environment MD Historical Trust
 National Marine Fisheries Service MD Department of Planning Metropolitan Planning Org.
 MD Dept. of Natural Resources

Provides Comments (below or attached) Has No Comments

Comments:

Additional Information Needed:

Signature: 

Date: 2/25/08

PURPOSE AND NEED

Project Name & Limits: MD 5: From MD 243 to MD 245

Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document):

Federal Highway Administration Corps of Engineers
 Environmental Protection Agency Fish and Wildlife Service

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

Comments / Reasons for Non-Concurrence:

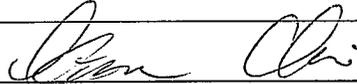
Note: Please do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

National Park Service MD Dept. of the Environment MD Historical Trust
 National Marine Fisheries Service MD Department of Planning Metropolitan Planning Org.
 MD Dept. of Natural Resources

Provides Comments (below or attached) Has No Comments

Comments:

Additional Information Needed:

Signature: 

Date: 11/09/09

PURPOSE AND NEED

| | |
|--|---|
| Project Name & Limits: MD 5: From MD 243 to MD 245 | |
| Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document): | |
| <input type="checkbox"/> Federal Highway Administration <input type="checkbox"/> Environmental Protection Agency | <input type="checkbox"/> Corps of Engineers <input type="checkbox"/> Fish and Wildlife Service |
| <input type="checkbox"/> Concurs (without comments) <input type="checkbox"/> Concurs (w/ <u>minor</u> comments) <input type="checkbox"/> Does Not Concur | |
| Comments / Reasons for Non-Concurrence: | |
| <i>Note: Please 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"/> National Park Service <input type="checkbox"/> National Marine Fisheries Service <input type="checkbox"/> MD Dept. of Natural Resources | <input checked="" type="checkbox"/> MD Dept. of the Environment <input type="checkbox"/> MD Department of Planning |
| <input type="checkbox"/> MD Historical Trust <input type="checkbox"/> Metropolitan Planning Org. | |
| <input type="checkbox"/> Provides Comments (below or attached) <input checked="" type="checkbox"/> Has No Comments | |
| Comments: | |
| Additional Information Needed: | |
| Signature: <u>Ede A. Gheziarelli</u> | Date: <u>2/15/08</u> |

PURPOSE AND NEED

| | |
|---|--|
| Project Name & Limits: MD 5: From MD 243 to MD 245 | |
| Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document): | |
| <input type="checkbox"/> Federal Highway Administration <input type="checkbox"/> Environmental Protection Agency | <input type="checkbox"/> Corps of Engineers <input type="checkbox"/> Fish and Wildlife Service |
| <input type="checkbox"/> Concurs (without comments) <input type="checkbox"/> Concurs (w/ <u>minor</u> comments) <input type="checkbox"/> Does Not Concur | |
| Comments / Reasons for Non-Concurrence: | |
| <i>Note: Please 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.</i> | |
| <input type="checkbox"/> National Park Service <input type="checkbox"/> National Marine Fisheries Service <input type="checkbox"/> MD Dept. of Natural Resources | <input type="checkbox"/> MD Dept. of the Environment <input type="checkbox"/> MD Department of Planning <input checked="" type="checkbox"/> MD Historical Trust <input type="checkbox"/> Metropolitan Planning Org. |
| <input type="checkbox"/> Provides Comments (below or attached) <input checked="" type="checkbox"/> Has No Comments | |
| Comments: | |
| Additional Information Needed: | |
| Signature: <u>Ann Tarduno</u> | Date: <u>1/8/08</u> |

U. S. DEPARTMENT OF TRANSPORTATION

PURPOSE AND NEED

| | |
|---|---|
| Project Name & Limits: MD 5: From MD 243 to MD 245 | |
| Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document): | |
| <input type="checkbox"/> Federal Highway Administration <input type="checkbox"/> Environmental Protection Agency | <input type="checkbox"/> Corps of Engineers <input type="checkbox"/> Fish and Wildlife 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: Please 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.</i> | |
| <input type="checkbox"/> National Park Service <input checked="" type="checkbox"/> National Marine Fisheries Service <input checked="" type="checkbox"/> MD Dept. of Natural Resources | <input type="checkbox"/> MD Dept. of the Environment <input type="checkbox"/> MD Department of Planning <input type="checkbox"/> MD Historical Trust <input type="checkbox"/> Metropolitan Planning Org. |
| <input type="checkbox"/> Provides Comments (below or attached) <input checked="" type="checkbox"/> Has No Comments | |
| Comments: (previous comments have been addressed on the errata sheet and through editing). | |
| Additional Information Needed: | |
| Signature: <u>Gregory J. Holden</u> | Date: <u>3/3/08</u> |

MD 5 - From MD 243 to MD 245
CONCURRENCE FORM FOR ALTERNATES RETAINED FOR DETAILED STUDY

INTRODUCTION

The purpose of the MD 5 project, from MD 243 (Compton Road) to MD 245 (Hollywood Road), is to improve the vehicular safety and traffic operations along MD 5, while supporting existing and planned development in the area. Currently, MD 5 serves as the major gateway to Leonardtown, the St. Mary's County Seat. In addition, this project would also address pedestrian and bicycle safety and accommodate vehicular access to the residences, businesses, schools, the hospital and places of worship along MD 5. The MD 5 study area is consistent with the 2007 Highway Needs Inventory.

DEVELOPMENT OF PRELIMINARY ALTERNATIVES

The following alternatives were presented to the public during the December 2007 Informational Open House as preliminary typical section concepts. Subsequent to the meeting, three build alternatives and two avoidance options were developed, along with the no-build alternative.

Alternative 1 – No-Build

No major improvements are proposed with Alternative 1, the No-Build Alternative. Minor short-term improvements would occur as part of the normal maintenance and safety projects. This alternative does not address the Purpose and Need for the project. However, it serves as a baseline for comparing the impacts and benefits of other proposed alternatives.

Alternative 2 – Transportation Systems Management (TSM)

The Transportation Systems Management (TSM) Alternative consists of a wide range of spot improvements throughout the corridor that address the most serious concerns at specific locations or intersections of roadway. TSM improvements generally could be constructed with relatively low costs. Examples of TSM improvements that may be considered for the MD 5 corridor include:

- Provide a double left from MD 5 westbound to MD 243 southbound
- Provide a double right from MD 243 northbound to MD 5 eastbound
- Add an Exclusive right turn lane from MD 5 eastbound to MD 5 Business (Washington Avenue) southbound
- Provide a double right from MD 245 southbound to MD 5 eastbound

Alternative 3 – Five Lane Section

Alternative 3 consists of the addition of a 13-foot-wide continuous turn lane to the median of MD 5 along with intersection improvements throughout the corridor. A 12-foot-wide inside travel lane and 16-foot-wide outside travel lane to accommodate bicycle access as well as horse-drawn vehicles. A 5-foot sidewalk would be provided along both sides of MD 5 throughout the entire corridor. Raised medians for ADA compliance are proposed at the MD 243 and MD 245 intersections, new signalized intersections at MD 5 and Clark's Rest

Lane and Abell/Moakley Streets. In addition, to include all of the improvements proposed under Alternative 2.

Alternative 4 – Four Lane Divided

Alternative 4 proposes the addition of a continuous median for MD 5 with left-turn lanes provided at the major intersections. A 12-foot-wide inside travel lane and 16-foot-wide outside travel lane to accommodate bicycle access as well as horse-drawn vehicles. A 5-foot sidewalk would be provided along both sides of MD 5 throughout the entire corridor. The intersections at MD 243 and MD 245 includes the improvements proposed under Alternative 2.

Options for Alternatives 3 and 4

- Option 1 -4(f) Minimization – This option deviates from the existing centerline to minimize impacts to historic or cultural resource properties (Section 4(f) impacts). Impacts to the historic Drury-Saunders House at the MD 5 and MD 245 intersections were unavoidable by any of the build alternatives.
- Option 2 – Stream Avoidance – This option deviates from the existing centerline to avoid the longitudinal stream impact and the historic site (Gough Farm) located on the north side of MD 5 between Abell/Moakley Streets and Clark’s Rest Lane.
- Option 3 –Additional Intersection Improvements – This option expands the intersections along MD 5 beyond what is proposed in all of the build alternatives to accommodate additional left turning movements and storage capacity to achieve an improved level of service. All of the approaches except for MD 5 westbound will have double left turning bays. This option also includes a traffic signal at MD 245/Merchants Lane and a jug handle movement at the MD 5 at Abell/Moakley Streets to accommodate U-turning vehicles as part of Alternative 4.

Alternatives Recommended for Detailed Study

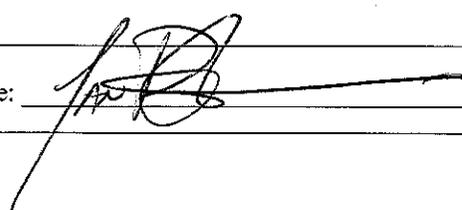
The alternatives retained for detailed study are as follows:

- **Alternative 1 – No Build** is recommended to be retained for detailed study as the basis for comparison.
- **Alternative 2 – TSM** is recommended to be retained for detailed study because it acts as an interim improvement to the other build alternative. Elements of TSM are already included in the other build alternatives.
- **Alternative 3 – Five Lane Section** is recommended to be retained for detailed study because it provides left turning bays for specific locations as a refuge for left-turning vehicles, increases capacity at the intersection, and addresses safety conditions for the Amish community and bicyclists, and provides a continuous sidewalk for all pedestrians.
- **Alternative 4 – Four Lane Divided** is recommended to be retained for detailed study because it provides left turning bays for specific locations as a refuge for left-turning vehicles, increases capacity at the intersection, and addresses safety conditions for the Amish community and bicyclists, and provides a continuous sidewalk for all pedestrians.

- **Option 1 – 4(f) Minimization** is recommended for further study because it meets the purpose and need requirements, as stated in Alternatives 3 and 4 listed above. However, the magnitude of displacements associated with the option is substantial. Efforts to avoid or minimize impacts to 4(f) resources will be included in the other build alternatives during the detailed engineering and environmental studies.
- **Option 2 – Stream Avoidance** is recommended to be retained for detailed study because it meets the purpose and need requirements and it avoids impacts to the unnamed tributary to McIntosh Run that was identified as a concern to the resource agencies.
- **Option 3 - Additional Intersection Improvements** is recommended to be retained for detailed study because it meets the purpose and need requirements.

Alternatives Not Recommended for Detailed Study

SHA recommended that none of the preliminary alternatives be dropped from further consideration.

| | | |
|---|--|---|
| Project Name & Limits: MD 5 from MD 243 to MD 245 | | |
| Having reviewed the attached Alternatives Retained for Detailed Study concurrence/comment package and the summary presented above, the following agency (by signing this document): | | |
| <input checked="" 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 checked="" type="checkbox"/> Concurs (without comments) <input type="checkbox"/> Concurs (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 type="checkbox"/> MD Department 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:  | Date: <u>1.27.09</u> | |



- **Option 2 – Stream Avoidance** is recommended to be retained for detailed study because it meets the purpose and need requirements and it avoids impacts to the unnamed tributary to McIntosh Run that was identified as a concern to the resource agencies.
- **Option 3 - Additional Intersection Improvements** is recommended to be retained for detailed study because it meets the purpose and need requirements.

Alternatives Not Recommended for Detailed Study

- **Option 1 – Section 4(f) Minimization** is not recommended for further study as a stand alone option due to the magnitude of displacements associated with the option (i.e., Alternative 4 with Option 1 has a total of 22 displacements as compared to a maximum of 14 with other alternatives/options being considered). Efforts to avoid or minimize impacts to Section 4(f) resources will be included in the other build alternatives during the detailed engineering and environmental studies. Option 1 will be evaluated only as a minimization option in the Section 4(f) Evaluation document.

| | | |
|---|--|---|
| Project Name & Limits: MD 5: MD 243 to MD 245 | | |
| Having reviewed the attached Alternatives Retained for Detailed Study 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 checked="" type="checkbox"/> Corps of Engineers | <input type="checkbox"/> National Marine Fisheries Service | |
| <input checked="" type="checkbox"/> Concurs (without comments) <input type="checkbox"/> Concurs (w/ <u>minor</u> comments) <input type="checkbox"/> Does Not Concur | | |
| Comments / Reasons for Non-Concurrence: | | |
| <i>Note: Do <u>not</u> 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.</i> | | |
| <input type="checkbox"/> MD Historical Trust | <input type="checkbox"/> MD Department 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:  | | Date: <u>4/24/09</u> |

Project Name & Limits: MD 5 from MD 243 to MD 245

Having reviewed the attached Alternatives Retained for Detailed Study 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:

- USFWS recommends Option 2 – Stream Avoidance. Please consider implementation of low impact development BMPs for stormwater management (e.g., bioretention, coastal plain outfalls) to unnamed tributary to McIntosh Run and McIntosh Run mainstem.

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 Department of Planning Metropolitan Planning Organization

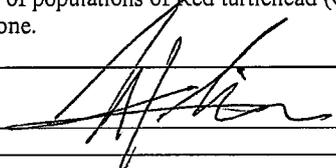
Provides Comments (below or attached) Has No Comments

Comments:

Additional Information Needed:

- Location of populations of Red turtlehead (*Chelone oblique*) and deciduous holly (*Ilex decidua*) with respect to project impact zone.

Signature: _____



Date: _____

11/24/08

Elizabeth Habic

From: Mitch_Keiler@fws.gov
Sent: Friday, January 23, 2009 2:53 PM
To: Elizabeth Habic
Subject: MD 5 Leonardtown ARDS

Elizabeth,

RE: MD 5 Leonardtown ARDS

The US Fish & Wildlife Service's concurrence with minor comment for this project dated 11/24/08 is still valid.

Thank you for alerting us to this change in the ARDS package.

Sincerely,

Mitch Keiler
Biologist
U.S. Fish & Wildlife Service
117 Admiral Cochrane Drive
Annapolis, Maryland 21401
(410) 573-4554 phone
(410) 269-0832 fax

MD 5 - From MD 243 to MD 245
CONCURRENCE FORM FOR ALTERNATES RETAINED FOR DETAILED STUDY

INTRODUCTION

The purpose of the MD 5 project, from MD 243 (Compton Road) to MD 245 (Hollywood Road), is to improve the vehicular safety and traffic operations along MD 5, while supporting existing and planned development in the area. Currently, MD 5 serves as the major gateway to Leonardtown, the St. Mary's County Seat. In addition, this project would also address pedestrian and bicycle safety and accommodate vehicular access to the residences, businesses, schools, the hospital and places of worship along MD 5. The MD 5 study area is consistent with the 2007 Highway Needs Inventory.

DEVELOPMENT OF PRELIMINARY ALTERNATIVES

The following alternatives were presented to the public during the December 2007 Informational Open House as preliminary typical section concepts. Subsequent to the meeting, three build alternatives and two avoidance options were developed, along with the no-build alternative.

Alternative 1 – No-Build

No major improvements are proposed with Alternative 1, the No-Build Alternative. Minor short-term improvements would occur as part of the normal maintenance and safety projects. This alternative does not address the Purpose and Need for the project. However, it serves as a baseline for comparing the impacts and benefits of other proposed alternatives.

Alternative 2 – Transportation Systems Management (TSM)

The Transportation Systems Management (TSM) Alternative consists of a wide range of spot improvements throughout the corridor that address the most serious concerns at specific locations or intersections of roadway. TSM improvements generally could be constructed with relatively low costs. Examples of TSM improvements that may be considered for the MD 5 corridor include:

- Provide a double left from MD 5 westbound to MD 243 southbound
- Provide a double right from MD 243 northbound to MD 5 eastbound
- Add an Exclusive right turn lane from MD 5 eastbound to MD 5 Business (Washington Avenue) southbound
- Provide a double right from MD 245 southbound to MD 5 eastbound

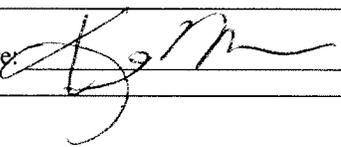
Alternative 3 – Five Lane Section

Alternative 3 consists of the addition of a 13-foot-wide continuous turn lane to the median of MD 5 along with intersection improvements throughout the corridor. A 12-foot-wide inside travel lane and 16-foot-wide outside travel lane to accommodate bicycle access as well as horse-drawn vehicles. A 5-foot sidewalk would be provided along both sides of MD 5 throughout the entire corridor. Raised medians for ADA compliance are proposed at the MD 243 and MD 245 intersections, new signalized intersections at MD 5 and Clark's Rest

- **Option 1 – 4(f) Minimization** is recommended for further study because it meets the purpose and need requirements, as stated in Alternatives 3 and 4 listed above. However, the magnitude of displacements associated with the option is substantial. Efforts to avoid or minimize impacts to 4(f) resources will be included in the other build alternatives during the detailed engineering and environmental studies.
- **Option 2 – Stream Avoidance** is recommended to be retained for detailed study because it meets the purpose and need requirements and it avoids impacts to the unnamed tributary to McIntosh Run that was identified as a concern to the resource agencies.
- **Option 3 - Additional Intersection Improvements** is recommended to be retained for detailed study because it meets the purpose and need requirements.

Alternatives Not Recommended for Detailed Study

SHA recommended that none of the preliminary alternatives be dropped from further consideration.

| | | |
|--|--|--|
| Project Name & Limits: MD 5 from MD 243 to MD 245 | | |
| Having reviewed the attached Alternatives Retained for Detailed Study concurrence/comment package and the summary presented above, the following agency (by signing this document): | | |
| <input type="checkbox"/> Federal Highway Administration <input checked="" type="checkbox"/> Environmental Protection Agency <input type="checkbox"/> Corps of Engineers | <input type="checkbox"/> Fish and Wildlife Service <input type="checkbox"/> National Park Service <input type="checkbox"/> National Marine Fisheries Service | <input type="checkbox"/> MD Dept. of Natural Resources <input type="checkbox"/> MD Dept. of the Environment |
| <input checked="" type="checkbox"/> Concurs (without comments) <input type="checkbox"/> Concurs (w/ <u>minor</u> comments) <input type="checkbox"/> Does Not Concur | | |
| Comments / Reasons for Non-Concurrence: | | |
| <i>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.</i> | | |
| <input type="checkbox"/> MD Historical Trust | <input type="checkbox"/> MD Department 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:  | Date: <u>3/15/09</u> | |

MD 5 - From MD 243 to MD 245
CONCURRENCE FORM FOR ALTERNATES RETAINED FOR DETAILED STUDY

INTRODUCTION

The purpose of the MD 5 project, from MD 243 (Compton Road) to MD 245 (Hollywood Road), is to improve the vehicular safety and traffic operations along MD 5, while supporting existing and planned development in the area. Currently, MD 5 serves as the major gateway to Leonardtown, the St. Mary's County Seat. In addition, this project would also address pedestrian and bicycle safety and accommodate vehicular access to the residences, businesses, schools, the hospital and places of worship along MD 5. The MD 5 study area is consistent with the 2007 Highway Needs Inventory.

DEVELOPMENT OF PRELIMINARY ALTERNATIVES

The following alternatives were presented to the public during the December 2007 Informational Open House as preliminary typical section concepts. Subsequent to the meeting, three build alternatives and two avoidance options were developed, along with the no-build alternative.

Alternative 1 – No-Build

No major improvements are proposed with Alternative 1, the No-Build Alternative. Minor short-term improvements would occur as part of the normal maintenance and safety projects.

This alternative does not address the Purpose and Need for the project. However, it serves as a baseline for comparing the impacts and benefits of other proposed alternatives.

Alternative 2 – Transportation Systems Management (TSM)

The Transportation Systems Management (TSM) Alternative consists of a wide range of spot improvements throughout the corridor that address the most serious concerns at specific locations or intersections of roadway. TSM improvements generally could be constructed with relatively low costs. Examples of TSM improvements that may be considered for the MD 5 corridor include:

- Provide a double left from MD 5 westbound to MD 243 southbound
- Provide a double right from MD 243 northbound to MD 5 eastbound
- Add an Exclusive right turn lane from MD 5 eastbound to MD 5 Business (Washington Avenue) southbound
- Provide a double right from MD 245 southbound to MD 5 eastbound

Alternative 3 – Five Lane Section

Alternative 3 consists of the addition of a 13-foot-wide continuous turn lane to the median of MD 5 along with intersection improvements throughout the corridor. A 12-foot-wide inside travel lane and 16-foot-wide outside travel lane to accommodate bicycle access as well as horse-drawn vehicles. A 5-foot sidewalk would be provided along both sides of MD 5 throughout the entire corridor. Raised medians for ADA compliance are proposed at the MD 243 and MD 245 intersections, new signalized intersections at MD 5 and Clark's Rest

Lane and Abell/Moakley Streets. In addition, to include all of the improvements proposed under Alternative 2.

Alternative 4 – Four Lane Divided

Alternative 4 proposes the addition of a continuous median for MD 5 with left-turn lanes provided at the major intersections. A 12-foot-wide inside travel lane and 16-foot-wide outside travel lane to accommodate bicycle access as well as horse-drawn vehicles. A 5-foot sidewalk would be provided along both sides of MD 5 throughout the entire corridor. The intersections at MD 243 and MD 245 includes the improvements proposed under Alternative 2.

Options for Alternatives 3 and 4

- Option 1 -4(f) Minimization – This option deviates from the existing centerline to minimize impacts to historic or cultural resource properties (Section 4(f) impacts). Impacts to the historic Drury-Saunders House at the MD 5 and MD 245 intersections were unavoidable by any of the build alternatives.
- Option 2 – Stream Avoidance – This option deviates from the existing centerline to avoid the longitudinal stream impact and the historic site (Gough Farm) located on the north side of MD 5 between Abell/Moakley Streets and Clark’s Rest Lane.
- Option 3 –Additional Intersection Improvements – This option expands the intersections along MD 5 beyond what is proposed in all of the build alternatives to accommodate additional left turning movements and storage capacity to achieve an improved level of service. All of the approaches except for MD 5 westbound will have double left turning bays. This option also includes a traffic signal at MD 245/Merchants Lane and a jug handle movement at the MD 5 at Abell/Moakley Streets to accommodate U-turning vehicles as part of Alternative 4.

Alternatives Recommended for Detailed Study

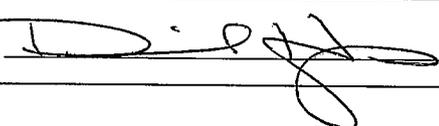
The alternatives retained for detailed study are as follows:

- **Alternative 1 – No Build** is recommended to be retained for detailed study as the basis for comparison.
- **Alternative 2 – TSM** is recommended to be retained for detailed study because it acts as an interim improvement to the other build alternative. Elements of TSM are already included in the other build alternatives.
- **Alternative 3 – Five Lane Section** is recommended to be retained for detailed study because it provides left turning bays for specific locations as a refuge for left-turning vehicles, increases capacity at the intersection, and addresses safety conditions for the Amish community and bicyclists, and provides a continuous sidewalk for all pedestrians.
- **Alternative 4 – Four Lane Divided** is recommended to be retained for detailed study because it provides left turning bays for specific locations as a refuge for left-turning vehicles, increases capacity at the intersection, and addresses safety conditions for the Amish community and bicyclists, and provides a continuous sidewalk for all pedestrians.

- **Option 1 – 4(f) Minimization** is recommended for further study because it meets the purpose and need requirements, as stated in Alternatives 3 and 4 listed above. However, the magnitude of displacements associated with the option is substantial. Efforts to avoid or minimize impacts to 4(f) resources will be included in the other build alternatives during the detailed engineering and environmental studies.
- **Option 2 – Stream Avoidance** is recommended to be retained for detailed study because it meets the purpose and need requirements and it avoids impacts to the unnamed tributary to McIntosh Run that was identified as a concern to the resource agencies.
- **Option 3 - Additional Intersection Improvements** is recommended to be retained for detailed study because it meets the purpose and need requirements.

Alternatives Not Recommended for Detailed Study

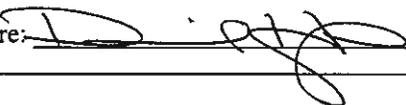
SHA recommended that none of the preliminary alternatives be dropped from further consideration.

| | | |
|---|--|---|
| Project Name & Limits: MD 5 from MD 243 to MD 245 | | |
| Having reviewed the attached Alternatives Retained for Detailed Study 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 checked="" 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 checked="" type="checkbox"/> Concurs (without comments) <input type="checkbox"/> Concurs (w/ <u>minor</u> comments) <input type="checkbox"/> Does Not Concur | | |
| Comments / Reasons for Non-Concurrence: | | |
| <i>Note: Do <u>not</u> 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.</i> | | |
| <input type="checkbox"/> MD Historical Trust | <input type="checkbox"/> MD Department 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:  | Date: <u>21 NOV 08</u> | |

- **Option 2 – Stream Avoidance** is recommended to be retained for detailed study because it meets the purpose and need requirements and it avoids impacts to the unnamed tributary to McIntosh Run that was identified as a concern to the resource agencies.
- **Option 3 - Additional Intersection Improvements** is recommended to be retained for detailed study because it meets the purpose and need requirements.

Alternatives Not Recommended for Detailed Study

- **Option 1 – Section 4(f) Minimization** is not recommended for further study as a stand alone option due to the magnitude of displacements associated with the option (i.e., Alternative 4 with Option 1 has a total of 22 displacements as compared to a maximum of 14 with other alternatives/options being considered). Efforts to avoid or minimize impacts to Section 4(f) resources will be included in the other build alternatives during the detailed engineering and environmental studies. Option 1 will be evaluated only as a minimization option in the Section 4(f) Evaluation document.

| | | |
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| Project Name & Limits: MD 5: MD 243 to MD 245 | | |
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| <input type="checkbox"/> Provides Comments (below or attached) <input type="checkbox"/> Has No Comments | | |
| Comments: | | |
| Additional Information Needed: | | |
| Signature:  | | Date: <u>12 Feb 09</u> |

MD 5 - From MD 243 to MD 245
CONCURRENCE FORM FOR ALTERNATES RETAINED FOR DETAILED STUDY

INTRODUCTION

The purpose of the MD 5 project, from MD 243 (Compton Road) to MD 245 (Hollywood Road), is to improve the vehicular safety and traffic operations along MD 5, while supporting existing and planned development in the area. Currently, MD 5 serves as the major gateway to Leonardtown, the St. Mary's County Seat. In addition, this project would also address pedestrian and bicycle safety and accommodate vehicular access to the residences, businesses, schools, the hospital and places of worship along MD 5. The MD 5 study area is consistent with the 2007 Highway Needs Inventory.

DEVELOPMENT OF PRELIMINARY ALTERNATIVES

The following alternatives were presented to the public during the December 2007 Informational Open House as preliminary typical section concepts. Subsequent to the meeting, three build alternatives and two avoidance options were developed, along with the no-build alternative.

Alternative 1 – No-Build

No major improvements are proposed with Alternative 1, the No-Build Alternative. Minor short-term improvements would occur as part of the normal maintenance and safety projects. This alternative does not address the Purpose and Need for the project. However, it serves as a baseline for comparing the impacts and benefits of other proposed alternatives.

Alternative 2 – Transportation Systems Management (TSM)

The Transportation Systems Management (TSM) Alternative consists of a wide range of spot improvements throughout the corridor that address the most serious concerns at specific locations or intersections of roadway. TSM improvements generally could be constructed with relatively low costs. Examples of TSM improvements that may be considered for the MD 5 corridor include:

- Provide a double left from MD 5 westbound to MD 243 southbound
- Provide a double right from MD 243 northbound to MD 5 eastbound
- Add an Exclusive right turn lane from MD 5 eastbound to MD 5 Business (Washington Avenue) southbound
- Provide a double right from MD 245 southbound to MD 5 eastbound

Alternative 3 – Five Lane Section

Alternative 3 consists of the addition of a 13-foot-wide continuous turn lane to the median of MD 5 along with intersection improvements throughout the corridor. A 12-foot-wide inside travel lane and 16-foot-wide outside travel lane to accommodate bicycle access as well as horse-drawn vehicles. A 5-foot sidewalk would be provided along both sides of MD 5 throughout the entire corridor. Raised medians for ADA compliance are proposed at the MD 243 and MD 245 intersections, new signalized intersections at MD 5 and Clark's Rest

Lane and Abell/Moakley Streets. In addition, to include all of the improvements proposed under Alternative 2.

Alternative 4 – Four Lane Divided

Alternative 4 proposes the addition of a continuous median for MD 5 with left-turn lanes provided at the major intersections. A 12-foot-wide inside travel lane and 16-foot-wide outside travel lane to accommodate bicycle access as well as horse-drawn vehicles. A 5-foot sidewalk would be provided along both sides of MD 5 throughout the entire corridor. The intersections at MD 243 and MD 245 includes the improvements proposed under Alternative 2.

Options for Alternatives 3 and 4

- **Option 1 -4(f) Minimization** – This option deviates from the existing centerline to minimize impacts to historic or cultural resource properties (Section 4(f) impacts). Impacts to the historic Drury-Saunders House at the MD 5 and MD 245 intersections were unavoidable by any of the build alternatives.
- **Option 2 – Stream Avoidance** – This option deviates from the existing centerline to avoid the longitudinal stream impact and the historic site (Gough Farm) located on the north side of MD 5 between Abell/Moakley Streets and Clark's Rest Lane.
- **Option 3 –Additional Intersection Improvements** – This option expands the intersections along MD 5 beyond what is proposed in all of the build alternatives to accommodate additional left turning movements and storage capacity to achieve an improved level of service. All of the approaches except for MD 5 westbound will have double left turning bays. This option also includes a traffic signal at MD 245/Merchants Lane and a jug handle movement at the MD 5 at Abell/Moakley Streets to accommodate U-turning vehicles as part of Alternative 4.

Alternatives Recommended for Detailed Study

The alternatives retained for detailed study are as follows:

- **Alternative 1 – No Build** is recommended to be retained for detailed study as the basis for comparison.
- **Alternative 2 – TSM** is recommended to be retained for detailed study because it acts as an interim improvement to the other build alternative. Elements of TSM are already included in the other build alternatives.
- **Alternative 3 – Five Lane Section** is recommended to be retained for detailed study because it provides left turning bays for specific locations as a refuge for left-turning vehicles, increases capacity at the intersection, and addresses safety conditions for the Amish community and bicyclists, and provides a continuous sidewalk for all pedestrians.
- **Alternative 4 – Four Lane Divided** is recommended to be retained for detailed study because it provides left turning bays for specific locations as a refuge for left-turning vehicles, increases capacity at the intersection, and addresses safety conditions for the Amish community and bicyclists, and provides a continuous sidewalk for all pedestrians.

- **Option 1 - 4(f) Minimization** is recommended for further study because it meets the purpose and need requirements, as stated in Alternatives 3 and 4 listed above. However, the magnitude of displacements associated with the option is substantial. Efforts to avoid or minimize impacts to 4(f) resources will be included in the other build alternatives during the detailed engineering and environmental studies.
- **Option 2 - Stream Avoidance** is recommended to be retained for detailed study because it meets the purpose and need requirements and it avoids impacts to the unnamed tributary to McIntosh Run that was identified as a concern to the resource agencies.
- **Option 3 - Additional Intersection Improvements** is recommended to be retained for detailed study because it meets the purpose and need requirements.

Alternatives Not Recommended for Detailed Study

SHA recommended that none of the preliminary alternatives be dropped from further consideration.

| | | |
|--|---|---|
| Project Name & Limits: MD 5 from MD 243 to MD 245 | | |
| Having reviewed the attached Alternatives Retained for Detailed Study 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 checked="" type="checkbox"/> National Park Service | <input type="checkbox"/> MD Dept. of the Environment |
| <input type="checkbox"/> Corps of Engineers | <input checked="" 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: | | |
| <i>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.</i> | | |
| <input type="checkbox"/> MD Historical Trust | <input type="checkbox"/> MD Department 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>J.S. [Signature]</u> | Date: <u>12/29/08</u> | |

Elizabeth

- **Option 2 – Stream Avoidance** is recommended to be retained for detailed study because it meets the purpose and need requirements and it avoids impacts to the unnamed tributary to McIntosh Run that was identified as a concern to the resource agencies.
- **Option 3 - Additional Intersection Improvements** is recommended to be retained for detailed study because it meets the purpose and need requirements.

Alternatives Not Recommended for Detailed Study

- **Option 1 – Section 4(f) Minimization** is not recommended for further study as a stand alone option due to the magnitude of displacements associated with the option (i.e., Alternative 4 with Option 1 has a total of 22 displacements as compared to a maximum of 14 with other alternatives/options being considered). Efforts to avoid or minimize impacts to Section 4(f) resources will be included in the other build alternatives during the detailed engineering and environmental studies. Option 1 will be evaluated only as a minimization option in the Section 4(f) Evaluation document.

| | | |
|--|---|---|
| Project Name & Limits: MD 5: MD 243 to MD 245 | | |
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| <input type="checkbox"/> Corps of Engineers | <input type="checkbox"/> National Marine Fisheries Service | |
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| <input type="checkbox"/> MD Historical Trust | <input checked="" type="checkbox"/> MD Department 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>the comment sheet is attached.</i> | | |
| Additional Information Needed: | | |
| Signature: <i>[Signature]</i> | | Date: <i>2/12/2009</i> |

Attachment to the Project's Evaluation Sheet

Subject: MDP Comments on the ARDS for the MD 5 Project from MD 243 to MD 245

The MD 5 project in Leonardtown is within the Priority Funding Area. The project document should include this information and a general and brief discussion about the PFA law compliance requirement and its intent.

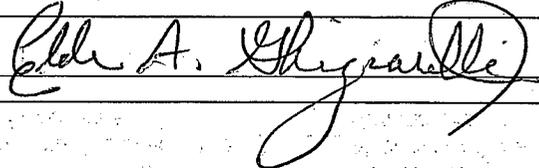
The MDP supports moving forward the proposed alternatives retained for detailed study although the build alternatives would not improve LOS at a couple of locations above E or F (without Option 3). We understand that the project is to improve traffic, and pedestrian/bicycle travel safety and operations while supporting existing and planned development in the Leonardtown area. Considering that in the future, MD 5 may still experience congestion conditions even with the improvements proposed by the project, the State should encourage and support Leonardtown and St. Mary's County to plan and build well connected local roadway networks through future developments along the MD 5 corridor. Parallel and well connected roadway systems along the MD 5 corridor are critical to support the existing and planned growth in the Leonardtown area. It is good that the Town plans to build road extensions and connections within and between communities. The project document should discuss the importance of building a well connected local roadway network as part of overall transportation improvements in the Leonardtown area.

Do Alternative 2-TSM and Alternative 4 – Four Lane Divided include access management strategies? It is likely some kind of access management along MD 5 will help.

- **Option 1 – 4(f) Minimization** is recommended for further study because it meets the purpose and need requirements, as stated in Alternatives 3 and 4 listed above. However, the magnitude of displacements associated with the option is substantial. Efforts to avoid or minimize impacts to 4(f) resources will be included in the other build alternatives during the detailed engineering and environmental studies.
- **Option 2 – Stream Avoidance** is recommended to be retained for detailed study because it meets the purpose and need requirements and it avoids impacts to the unnamed tributary to McIntosh Run that was identified as a concern to the resource agencies.
- **Option 3 - Additional Intersection Improvements** is recommended to be retained for detailed study because it meets the purpose and need requirements.

Alternatives Not Recommended for Detailed Study

SHA recommended that none of the preliminary alternatives be dropped from further consideration.

| | | |
|--|--|---|
| Project Name & Limits: MD 5 from MD 243 to MD 245 | | |
| Having reviewed the attached Alternatives Retained for Detailed Study concurrence/comment package and the summary presented above, the following agency (by signing this document): | | |
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| <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 type="checkbox"/> Concur (without comments) <input checked="" type="checkbox"/> Concur (w/ <u>minor</u> comments) <input type="checkbox"/> Does Not Concur | | |
| Comments / Reasons for Non-Concurrence: <i>Please see attached.</i> | | |
| <i>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.</i> | | |
| <input type="checkbox"/> MD Historical Trust | <input type="checkbox"/> MD Department 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:  | Date: <u>12/15/08</u> | |

MDE's Comments on MD 5: MD 243 to MD 245

Alternatives Retained for Detailed Study

1. The ARDS package indicates that the study area has a thriving Amish community. We appreciate the efforts of the study team to reach out to the Amish community to better understand their concerns. One of the concerns expressed by the Amish is the fact that their slow-moving horse-drawn buggies must share the travel way with automobiles because there is inadequate shoulder width. We note that none of the alternatives under consideration provide a shoulder of sufficient width to accommodate buggies. Given the presence of this unique and special community, and the fact that the Purpose and Need Statement expresses a goal of ensuring adequate accommodations for the Amish, we recommend that an alternative be developed that contains two shoulders of sufficient width to accommodate buggies. The amount of additional widening needed to accommodate the shoulders could potentially be reduced by utilizing the currently proposed 4-foot bikepath and the 2-foot offset between the curb and sidewalk. These areas could potentially be converted to a shoulder, thereby requiring only two or four feet of additional widening on each side. It does not appear that this incremental widening would result in additional residential or commercial displacements. We do not believe this alternative should be dismissed without sufficient study to assess its potential impacts to the same level of analysis as the other ARDS alternatives.
2. The projected level-of-service for the proposed Clarks Rest/Tudor Hall intersection indicates LOS F in the design year. This is the only intersection within the project limits that has no proposed improvement that will raise the level-of-service to LOS E or better. If your traffic analysis shows that this intersection can be improved to LOS E through the incorporation of double left turns from MD 5, it would be to your advantage to include a wider median, at this time, to reserve the space needed to construct double left turn lanes in the future. This is a rapidly developing area, and the land needed for the construction of additional turn lanes may not be available 15 years from now unless it is preserved at this time. Furthermore, this would avoid the need to impact the adjacent natural resources a second time.
3. We are not clear why the three businesses in the proposed McIntosh Center are shown as displacements caused by this project. We appreciate that the layout of the proposed development has been shown, and we appreciate that the three buildings that would be demolished by this development have been shown. However, the State Highway

Administration would only be responsible for providing a curb break for the future development, and a minor amount of pavement which would terminate at the right-of-way line. The entrance road on the private property, and any accel/decel lanes needed for the entrance, should be the responsibility of the developer. Therefore, the three business displacements should be shown as impacts "by others." All three businesses would eventually be demolished by the developer, regardless of the alternative selected. However, your present method of accounting for them under only Alternate 4 skews the future selection of the preferred alternative in favor of Alternate 3.

4. We appreciate that Option 3 of Alternate 4 has been developed to avoid the stream that runs parallel to MD 5. We understand that Option 3 shifts the construction away from the stream, leaving a 15-foot buffer (approximately). We also note that the right-of-way line for Option 3 encroaches slightly onto the Nationwide Insurance building, causing this business to be displaced. We are concerned that this business displacement could subsequently prove to be a fatal flaw in the selection of Option 3, therefore, we recommend that Option 3 be modified slightly to avoid displacing this business.

Elizabeth Habic

From: Paul Wettlaufer [pwettlaufer@rkk.com]
Sent: Tuesday, March 24, 2009 8:10 AM
To: Jennifer Ottenberg; Elizabeth Habic; Elder Ghigiarelli; Joseph Kresslein
Subject: Re: Reminder: MD 5 Leonardtown ARDS

Our former response on behalf of MDE is still valid. After having seen the project in the field, I am convinced that we can widen the proposed cross section an additional 4-5 feet to accommodate Amish buggies without displacing a single residence. I would be willing to discuss this in the field with your engineers. Paul

----- Original Message -----

From: "Jennifer Ottenberg" <jottenberg@rkk.com>
To: "Paul Wettlaufer" <pwettlaufer@rkk.com>
Sent: Tuesday, March 24, 2009 8:03:25 AM GMT -05:00 US/Canada Eastern
Subject: Fwd: Reminder: MD 5 Leonardtown ARDS

See Elizabeth's email below regarding the ARDS.

Jennifer A. Ottenberg, PWS, AWB

*RK&K Engineers, LLP
81 Mosher Street
Baltimore, Maryland 21217
Phone: 410-728-2900
Direct line: 410-462-9131
Fax: 410-728 2834
Email: jottenberg@rkk.com*

----- Forwarded Message -----

From: "Elizabeth Habic" <EHabic@sha.state.md.us>
To: "john j dinne" <john.j.dinne@usace.army.mil>, "Rudnick Barbara" <Rudnick.Barbara@epamail.epa.gov>, "John Nichols" <john.nichols@noaa.gov>, ggolden@dnr.state.md.us, jottenberg@rkk.com, "david hayes" <david_hayes@nps.gov>, "B Xu" <BXu@mdp.state.md.us>, ttamburrino@mdp.state.md.us
Cc: "Jeremy Beck" <JBeck@sha.state.md.us>
Sent: Wednesday, February 4, 2009 1:50:15 PM GMT -05:00 US/Canada Eastern
Subject: Reminder: MD 5 Leonardtown ARDS

Just a reminder that concurrence/comments are due next week on Friday, February 13th for the MD 5 Leonardtown planning project. If your agency submitted a response based on the draft ARDS package and the changes regarding Option 1 - 4(f) Minimization do not change your prior response, you can reply to this e-mail to confirm you response is still valid.

Please contact me if there are any questions.

Thanks,
Elizabeth

05/01/2009

From: Elizabeth Habic
Sent: Friday, January 23, 2009 1:46 PM
To: 'Ian.cavanaugh@fhwa.dot.gov'; Jack Dinne (john.j.dinne@usace.army.mil); Rudnick.Barbara@epamail.epa.gov; Bill_Schultz@fws.gov; Mitch Keilor (mitch_keiler@fws.gov); John Nichols; ggolden@dnr.state.md.us; (jottenberg@rkk.com); David Hayes (david_hayes@nps.gov); B Xu; ttamburrino@mdp.state.md.us
Cc: Jeremy Beck; Heather Lowe; Joseph Kresslein
Subject: MD 5 Leonardtown ARDS

Hi Everyone,

The final MD 5 Leonardtown ARDS package was mailed last week. I wanted to to direct your attention to a change to the Alternatives/Options which was made after the November Interagency Review presentation. Option 1 - Section 4(f) Minimization was not recommended for further study as a stand alone alternative due to the magnitude of displacements associated with the option. Efforts to avoid or minimize impacts to Section 4(f) resources will be included in the other build alternatives during the detailed engineering and environmental studies. Option 1 will be evaluated only as a minimization option in the Section 4(f) Evaluation document.

If your agency has already submitted concurrence on the alternatives, and the stated changes to the alternatives do not change your comments, you can respond to this e-mail to let us know your concurrence is still valid. If you would like to change your comments or have not submitted a concurrence please submit the concurrence form from the package by February 13, 2009.

Please contact me if there are any questions.

Thanks,
Elizabeth

Elizabeth Habic
Environmental Planning Division
MD State Highway Administration
707 North Calvert Street, Mail Stop C-301
Baltimore MD 21202

Phone: 410-545-8563
Fax: 410-209-5004
Toll Free: 1-866-527-0502
E-mail: ehabic@sha.state.md.us

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Paul R. Wettlaufer
RK&K
(410)462-9139 Direct
pwettlaufer@rkk.com

05/01/2009

- **Option 2 – Stream Avoidance** is recommended to be retained for detailed study because it meets the purpose and need requirements and it avoids impacts to the unnamed tributary to McIntosh Run that was identified as a concern to the resource agencies.
- **Option 3 - Additional Intersection Improvements** is recommended to be retained for detailed study because it meets the purpose and need requirements.

Alternatives Not Recommended for Detailed Study

- **Option 1 – Section 4(f) Minimization** is not recommended for further study as a stand alone option due to the magnitude of displacements associated with the option (i.e., Alternative 4 with Option 1 has a total of 22 displacements as compared to a maximum of 14 with other alternatives/options being considered). Efforts to avoid or minimize impacts to Section 4(f) resources will be included in the other build alternatives during the detailed engineering and environmental studies. Option 1 will be evaluated only as a minimization option in the Section 4(f) Evaluation document.

| | | |
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| Project Name & Limits: MD 5: MD 243 to MD 245 | | |
| Having reviewed the attached Alternatives Retained for Detailed Study concurrence/comment package and the summary presented above, the following agency (by signing this document): | | |
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| <input type="checkbox"/> Provides Comments (below or attached) <input checked="" type="checkbox"/> Has No Comments | | |
| Comments: | | |
| Additional Information Needed: | | |
| Signature: <u>Jim Jarman</u> | Date: <u>2/12/09</u> | |



Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
John R. Griffin, Secretary
Eric Schwaab, Deputy Secretary

June 4, 2009

Memorandum

To: Joseph Kresslein, Environmental Planning Division, SHA

From: Greg Golden, Environmental Review Unit, MD DNR

Subject: ARDS Concurrence Comments for MD 5: MD 243 to MD 245, St. Mary's County

The following information represents the MD Department of Natural Resources (DNR) comments for concurrence on the Alternatives Retained for Detailed Study (ARDS) package for the following project: SM352A11, MD 5: MD 243 to MD 245, St. Mary's County. The Department is able to concur with the ARDS package, with the comments indicated below. We are confirming that concurrence decision through this memo.

The project study area contains and/or is in close proximity to Nontidal Wetlands of Special State Concern and habitat for documented rare, threatened, and endangered (RTE) species. We have carefully considered information in the ARDS package. It is our conclusion that the group of alternatives carried forward do not lock in any specific impacts, drop any significant impact avoidance opportunities from consideration, nor promote new alignments through previously undisturbed habitats away from current roadways. We advocate and are available for coordination on full consideration of these natural resources in planning, as well as efforts to avoid impacts to these sensitive natural resources before a final selection of alternatives is proposed.

It is our understanding that some of the alternatives carried forward will potentially involve widening of the existing alignment, which could result in impacts to naturally vegetated areas adjacent to the existing road. Some of these areas may provide habitat for species of concern. Therefore, our concurrence on the ARDS package must clearly be qualified to indicate that collection of further natural resource field information is appropriate during the detailed study phase, and decisions on an eventual selected alternative must take into account further analysis of habitat and species information. In our advocacy of maximized protection of sensitive habitats, we emphasize that the State project must meet certain impact avoidance guidelines and requirements if RTE species are determined to be present in close proximity to proposed construction.

In general, further planning should maximize opportunity for flexibility in road widening design. For example, maintaining opportunity to widen either to the north or the south, or to utilize retaining walls or variable road cross sections, will optimize the ability to avoid or minimize impacts to sensitive habitats.

Options or alternatives which avoid road widening in or adjacent to naturally vegetated areas should remain in consideration until all habitat and species assessments are completed and reviewed with the natural resources agencies.

The Nontidal Wetlands of Special State Concern (NTWSSC) designation is important to clarify. Maps of these designations are considered guidance maps. Information on jurisdictional field delineations in their vicinity must be utilized, in coordination with MD DNR and MDE, to determine the actual extent of this designation and the associated expanded buffers for wetland permitting purposes. Therefore, project planning in the vicinity of a NTWSSC should not make assumptions on final boundaries of the designation based on guidance mapping, and final boundaries to be included on plans should be determined through that interagency coordination after field wetland determinations are finalized.

It is our understanding that our conclusions above on the ARDS package are consistent with the conclusions reached by other commenting resource agencies. If we have misstated any of the points on retained flexibility of design at the ARDS stage for this project, please provide direct response and clarification on that point.

If you have any questions regarding these comments, please contact me at your convenience at 410-260-8331 (note that this is a changed phone number for me).

cc: Katherine McCarthy, WHS, MD DNR



MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

Martin O'Malley, Governor
John R. Griffin, Secretary

March 9, 2007

Mr. Joseph Kresslein
State Highway Administration
707 North Calvert Street
Baltimore, Maryland 21202

Dear Mr. Kresslein:

This letter is in response to your letter of request, dated March 1, 2007, for information on the presence of fishery resources in the vicinity of State Highway Administration's **Project No. SM352A11: MD 5 from MD 243 to MD 245** in St. Mary's County.

From a review of the information provided with your request it appears that the subject project area includes McIntosh Run and Town Run (Lower Potomac River Drainage). Both McIntosh Run and Town Run are classified as Use I streams (Water Contact Recreation and Protection of Nontidal Warmwater Aquatic Life). Generally, no instream work is permitted in Use I streams during the period of March 1 through June 15, inclusive, during any year.

Our Fisheries Service has not documented any anadromous fish species in McIntosh Run or Town Run. However, our Maryland Biological Stream Survey (MBSS) team has recently completed a survey of streams within the Lower Potomac River Basin and documented many resident fish species. Table F3-3 (attached) lists fish species documented by our MBSS in the Lower Potomac River Drainage Area. Many of these species could potentially be found near your project site. These species should be adequately protected by the Use I instream work prohibition period, sediment and erosion control methods, and other Best Management Practices typically used for protection of stream resources.

If you have any questions concerning these comments you may contact me at 410-260-8331.

Sincerely,

Ray C. Dintaman, Jr., Director
Environmental Review Unit

Attachment

MAR 12 '07 PM 2:14:17 P

Table F3-3. Species found in 1995 MBSS Study vs Qualitative Study, Lower Potomac Basin

Species Found in 1995 MBSS Study vs Qualitative Study
By Basin

----- BASNAME=LOWER POTOMAC -----

| Species | in MBSS study | in Qual. study |
|------------------------|------------------|-------------------|
| LEAST BROOK LAMPREY | X | X |
| SEA LAMPREY | X | X |
| AMERICAN EEL | X | X |
| CHAIN PICKEREL | X | X |
| REDFIN PICKEREL | X | X |
| EASTERN MUDMINNOW | X | X |
| BLACKNOSE DACE | X | X |
| COMMON SHINER | X | |
| CREEK CHUB | X | X |
| EASTERN SILVERY MINNOW | X | X |
| FALLFISH | X | X |
| FATHEAD MINNOW | X | |
| GOLDEN SHINER | X | X |
| IRONCOLOR SHINER | X | X |
| ROGYSIDE DACE | X | X |
| SATINFIN SHINER | X | X |
| SPOTTAIL SHINER | X | X |
| SWALLOWTAIL SHINER | X | X |
| CREEK CHUBSUCKER | X | X |
| WHITE SUCKER | X | X |
| BROWN BULLHEAD | X | X |
| MARGINED MADTOM | X | X |
| TADPOLE MADTOM | X | X |
| YELLOW BULLHEAD | X | X |
| PIRATE PERCH | X | X |
| BANDED KILLIFISH | X | X |
| MUMMICHOG | | X |
| MOSQUEROFISH | X | |
| WHITE PERCH | | X |
| BLACK CRAPPLE | X | X |
| BLUEGILL | X | X |
| BLUESPOTTED SUNFISH | X | X |
| FLIER | X | |
| GREEN SUNFISH | X | X |
| LARGEMOUTH BASS | X | X |
| PUMPKINSEED | X | X |
| REDBREAST SUNFISH | X | X |
| WARMOUTH | X | X |
| LEPOMIS HYBRID | X | |
| SWAMP DARTER | X | X |
| TESSELLATED DARTER | X | X |
| YELLOW PERCH | X | X |



Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
John R. Griffin, Secretary
Eric Schwaab, Deputy Secretary

June 22, 2007

Mr. Bruce M. Grey
Maryland Department of Transportation
State Highway Administration
707 North Calvert Street
Baltimore, MD 21202

**RE: Environmental Review for Project No. SM352A11, MD 5: MD 243 to MD 245,
Project Planning Studies, St. Mary's County, Maryland.**

Dear Mr. Grey:

The Wildlife and Heritage Service (WHS) has determined that there are no State or Federal records for rare, threatened or endangered species within the boundaries of the project site as delineated. This statement should not be interpreted however as meaning that rare, threatened or endangered species are not in fact present. If appropriate habitat is available, certain species could be present without documentation because adequate surveys have not been conducted.

We would like to bring to your attention that this project site is located within the drainage of McIntosh Run. A portion of this project site appears to overlap with an area of McIntosh Run that is designated in state regulations as Nontidal Wetlands of Special State Concern by the Maryland Department of the Environment (MDE). The watershed also harbors an area designated a Habitat Protection Area under our State's Critical Area law, because it supports a population of state-listed Threatened Red Turtlehead (*Chelone obliqua*) and state Rare Deciduous Holly (*Ilex decidua*). It is important to note that the population of Red Turtlehead is in close proximity to the project site, approximately 1000 feet downstream from it. We encourage SHA to coordinate with Katharine McCarthy of WHS at (410) 260-8569 for specific protection measures in regards to these RT&E species as this project moves forward.

In order to maintain the ecological integrity of this important watershed, we offer the following recommendations for incorporation into the project plans:

- Limit forest clearing and disturbance to the minimum amount of area that is absolutely necessary, particularly in the vicinity of wetlands
- Minimize impacts to any non-tidal wetlands
- Pursue environmentally sensitive design to address storm water runoff by promoting the use of nonstructural best management practices (BMP's) to the maximum extent. Methods to pursue include the use of sheet flow to buffers, vegetated channels (i.e., roadside swales) to convey road runoff (instead of curb and gutter), and methods of bioretention.

- In order to minimize risk of sedimentation in aquatic habitat as well as to minimize changes to the hydrology:
 - a) Stabilize soil - Stabilization should occur immediately (within 24 hours). Special effort should be made to retain fine particle silt, sand and clay sediments, including the incorporation of redundant/additional control measures in the sediment and erosion control plan to ensure maximum filtration of any sediment-laden runoff (e.g., accelerated stabilization, super silt fence instead of silt fence, etc.).
 - b) Inspect frequently - All measures should be inspected daily to ensure that they are functional from the very initial stages through final construction, and any problems should be corrected immediately.
 - c) Do not disturb steep slopes (15% slope or greater) or highly erodible soils.

Our analysis of the information provided also suggests that the forested area on the project site contains Forest Interior Dwelling Bird habitat. Populations of many Forest Interior Dwelling Bird species (FIDS) are declining in Maryland and throughout the eastern United States. The conservation of this habitat is mandated within the Chesapeake Bay Critical Area and must be addressed by the project plan. Specifically, if FIDS habitat is present, the following guidelines should be incorporated into the project plan:

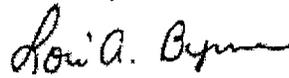
1. Avoid placement of new roads or related construction in the forest interior. If forest loss or disturbance is absolutely unavoidable, restrict development to the perimeter of the forest (i.e., within 300 feet of the existing forest edge), and avoid road placement in areas of high quality FIDS habitat (e.g., old-growth forest). Maximize the amount of remaining contiguous forested habitat.
2. Do not remove or disturb forest habitat during May-August, the breeding season for most FIDS. This seasonal restriction may be expanded to February-August if certain early nesting FIDS (e.g., Barred Owl) are present.
3. Maintain forest habitat as close as possible to the road, and maintain canopy closure where possible.
4. Maintain grass height at least 10" during the breeding season (May-August).

The Critical Area Commission's document "A Guide to the Conservation of Forest Interior Dwelling Birds in the Chesapeake Bay Critical Area" provides details on development standards and information about mitigation for projects where impacts to FIDS habitat cannot be totally avoided. Mitigation plantings for impacts to FIDS habitat may be required under the local government's Critical Area Program. The amount of mitigation required is generally based in whether the guidelines listed above are followed.

Page 3

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at (410) 260-8573.

Sincerely,



Lori A. Byrne,
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER #2007.0619.sm
Cc: K. McCarthy, WHS
L. Hoerger, CAC
R. Dintaman, ERU



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401



March 8, 2007

Mr. Joseph Kresslein
Assistant Division Chief
Project Planning Division
State Highway Administration
707 North Calvert Street
Baltimore, MD 21202

RE: *Project No. SM352A11 MD 5: MD 243 to MD 245, St. Mary's County, MD*

Dear Mr. Kresslein:

This responds to your letter, received March 7, 2007, requesting information on the presence of species which are federally listed or proposed for listing as endangered or threatened within the above referenced project area. We have reviewed the information you enclosed and are providing comments in accordance with section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

The federally endangered dwarf wedge mussel (*Alasmidonta heterodon*) is present upstream from the Route 5 crossing in the McIntosh Run. This freshwater mussel lives on sand, muddy sand, and gravel bottoms in creeks and rivers of various sizes. It requires areas of slow to moderate current, good water quality, and little silt deposition. Any potential impacts on this species or its habitat should be analyzed as a part of your environmental assessment. If such impacts may occur, further Section 7 consultation with the U.S. Fish and Wildlife Service may be required.

Except for occasional transient individuals, no other federally proposed or listed endangered or threatened species are known to exist within the area. Should additional information on the distribution of listed or proposed species becomes available, this determination may be reconsidered.

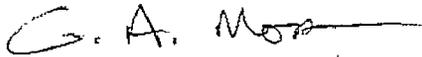
This response relates only to federally protected threatened or endangered species under our jurisdiction. For information on the presence of other rare species, you should contact Lori Byrne of the Maryland Wildlife and Heritage Division at (410) 260-8573.

An additional concern of the Service is wetlands protection. Federal and state partners of the Chesapeake Bay Program have adopted an interim goal of no overall net loss of the basin's

remaining wetlands, and the long term of increasing the quality and quantity of the basin's wetlands resource base. Because of this policy and the functions and values wetlands perform, the Service recommends avoiding wetland impacts. All wetlands within the project area should be identified, and if construction in wetlands proposed, the U.S. Army Corps of Engineers, Baltimore District should be contacted for permit requirements. They can be reached at (410) 962-3670.

We appreciate the opportunity to provide information relative to fish and wildlife issues, and thank you for your interest in these resources. If you have any questions or need further assistance, please contact Andy Moser at (410) 573-4537.

Sincerely,

A handwritten signature in black ink that reads "G. A. Moser". The signature is written in a cursive style with a long horizontal stroke at the end.

for Mary J. Ratnaswamy, Ph.D.
Program Supervisor, Threatened and Endangered Species

cc: Lori Byrne, Maryland Wildlife and Heritage Division, Annapolis, MD



Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
John R. Griffin, Secretary
Eric Schwaab, Deputy Secretary

July 28, 2009

Mr. Joseph C. Snavelly
Skelly and Loy, Inc.
19741B Leitersburg Pike
Hagerstown, MD 21742

RE: Wetlands mapping for Maryland Route 5: MD 243 to MD 245, Leonardtown, St. Mary's County, Maryland.

Dear Mr. Snavelly:

Thank you for providing us with the wetlands mapping and rare species occurrence/habitat mapping for this study area. We would like to point out that the wetlands north of MD Route 5 on the Clarks Rest property and the wetland labeled W14 on your mapping are considered Wetlands of Special State Concern. Please note that this should be verified with Maryland Department of the Environment, as they are the regulatory authority for such wetlands.

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at (410) 260-8573.

Sincerely,

Lori A. Byrne,
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER # 2009.0920.sm
cc: K. McCarthy, DNR
G. Golden, DNR



State Highway Administration

Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor

John D. Porcari, Secretary
Neil J. Pedersen, Administrator

Maryland Department of Transportation

May 27, 2009

Re: Project No. SM352A11
MD 5 from MD 243 to MD 245
St. Mary's County, MD
USGS Leonardtown 7.5' Quadrangle

Mr. J. Rodney Little
State Historic Preservation Officer
Maryland Historical Trust
100 Community Place
Crownsville MD 21032-2023

Dear Mr. Little:

Introduction and Project Description

This letter serves to inform the Maryland Historical Trust (MHT) of the Maryland State Highway Administration's (SHA) finding that proposed Project No. SM352A11 would have an adverse effect on historic properties. The MD 5 Project Planning Study is located within the incorporated limits of the Town of Leonardtown in St. Mary's County. The project is to improve vehicular safety and traffic operations along the MD 5 corridor accommodating both existing vehicular access and planned development in the area while addressing the safety needs of pedestrians, bicycles and horse drawn vehicles.

On February 11, 2008 and March 26, 2008 the MHT concurred that five properties within the Area of Potential Effects (APE) for the project were either listed or eligible for listing in the National Register of Historic Places (NRHP). In addition, an archeological assessment and survey has been conducted within the APE. SHA has developed four alternatives and three additional options in the Alternatives Retained for Detailed Study (ARDS).

Alternatives Retained for Detailed Study

After considering a number of issues, including environmental and community impacts, traffic operations, and comments from regulatory agencies and the public, SHA has developed the following alternatives and options for the improvement of the MD 5 corridor:

- Alternative 1 – No-Build: No substantial improvements other than normal maintenance and safety projects.

My telephone number/toll-free number is _____
Maryland Relay Service for Impaired Hearing or Speech: 1.800.735.2258 Statewide Toll Free
Street Address: 707 North Calvert Street • Baltimore, Maryland 21202 • Phone: 410.545.0300 • www.marylandroads.com



- Alternative 2 – Transportation Systems Management (TSM): This alternative consists of a wide range of spot improvements throughout the corridor to address the most serious concerns at specific locations. These improvements include:
 - A double left from MD 5 westbound to MD 243 southbound
 - A double right from MD 243 northbound to MD 5 eastbound
 - Exclusive right turn lane from MD 5 eastbound to MD 5 Business (Washington Avenue) southbound
 - A double right from MD 245 southbound to MD 5 eastbound
- Alternative 3 – Five Lane Section: This alternative consists of a thirteen-foot-wide continuous turn lane at the median of MD 5; a ten-foot-wide inside and an eleven-foot-wide outside vehicular travel lane; a seven-foot-wide outside lane to accommodate bicycles and horse-drawn vehicles; a five-foot-wide sidewalk along both sides of the entire corridor; and intersection improvements throughout the corridor
- Alternative 4 – Four Lane Divided: This alternative proposes a landscaped median for MD 5 with left-turn lanes provided at major intersections; a ten-foot-wide inside and an eleven-foot-wide outside vehicular travel lane; a seven-foot-wide outside lane to accommodate bicycles and horse-drawn vehicles; and a five-foot-wide sidewalk along both sides of the entire corridor. Three options are being considered for Alternative 4 – Four Lane Divided:
 - Option 2 – Stream Avoidance – This option deviates from the existing centerline to avoid the longitudinal stream impact and Gough Farm located on the north side of MD 5 between Abell/Moakley Streets and Clark's Rest Lane.
 - Option 3 – Additional Intersection Improvements – This option expands the intersections along MD 5 beyond the other build alternatives to accommodate left turning movements and storage capacity to achieve an improved level of service. This option also includes a traffic signal at MD 245/Merchants Lane and a jug handle movement at MD 5 at Abell/Moakley Streets to accommodate U-turning vehicles.
 - Option 4 – Shopping Center Modified Access – This option eliminates shopping center access from MD 243. A new signalized entrance into the shopping center is added to the west of the intersection with a double left turn from northbound MD 5. Right turns from MD 243 into Merchants Lane and left turns from Merchants lane onto MD 243 are prohibited.

Conceptual plans for all alternatives are included as Attachment 1.

Funding

Federal funds are anticipated for this project.

Mr. J. Rodney Little
MD 5 from MD 243 to MD 245
Page Three

Area of Potential Effects

In determining the Area of Potential Effects (APE) for this project, SHA considered possible visual, audible and physical impacts to standing and archeological historic properties. The APE is defined as the tax parcels adjacent to MD 5 between the project limits of work (Attachment 2). The area is characterized by a mix of farms, residential properties, institutional properties and small commercial properties. The archeological survey area is defined as the combined worst case limits of disturbance of all the alternatives.

Identification Methods and Results

Potentially significant architectural and archeological resources were both researched as part of the historic investigation instigated by the proposed improvements to MD 5.

Architecture: SHA Architectural Historians Kathryn Barrett and Fred Shoken consulted the SHA-GIS Cultural Resources Database, aerial photographs, Maryland Inventory of Historic Properties and Determination of Eligibility forms, and SHA project files. A field visit took place on April 23, 2009.

The following five historic properties have previously been identified by SHA with the concurrence of MHT within the APE of this project: Old SHA Garages (MIHP No. SM-883); Gough Farm (MIHP No. SM-331); Buena Vista (listed in the National Register of Historic Places on August 19, 1998 - MIHP No. SM-52); Drury-Saunders House (MIHP No. SM-540); and St. Mary's Academy (MIHP No. SM-422). Current photographs of these properties are included in Attachment 3.

Impacts to Historic Structures

The Alternatives Retained for Detailed Study (ARDS) have varying potential to impact historic structures. All of the alternatives, except for the No-Build alternative will require right-of-way takings from some or all of the five historic properties in order to widen MD 5.

All of the build alternatives will require a minimal right-of-way taking between 0.078 and 0.083 acres for the Old SHA Garages (SM-833), a 1.89 acre property. Considering the highway/utilitarian historic use of these two concrete block garages dating from 1928 and 1938, the impact is not considered to be adverse. A retaining wall and landscaping between the widened MD 5 and this property will minimize the impact on this resource which is currently undergoing conversion into a winery.

Mr. J. Rodney Little
MD 5 from MD 243 to MD 245
Page Four

Alternative 2 and Alternative 4 Option 2 will have no impact on the Gough Farm (SM-331). The other three build alternatives will require a minimal right-of-way taking between 0.019 and 0.021 acres for this 6.88 acre property. The taking will be along the narrow entryway strip to the farm which features non-contributing elements: a metal guard rail and posts displaying a recent sign and address for the property. The contributing farm buildings are located approximately 500 feet from MD 5. This impact is not considered to be adverse to the historic resource.

Alternative 2 will have no impact on Buena Vista (SM-52). The other four build alternatives will require a minimal right-of-way taking between 0.079 and 0.087 acres for this 1.61 acre property. The taking will be in the vicinity of two brick piers with concrete caps incised with the words "Buena" and "Vista." They appear to date from the 20th century for a property that has a period of significance defined as c. 1840s – 1888. This impact is not considered to be adverse to the historic resource as long as the brick entry piers are relocated if necessary, the existing entry path loop is retained and a landscaped buffer is reinstalled between a widened MD 5 and the entry piers. The historic c. 1840 Greek Revival House and contributing rear outbuildings are located approximately 200 feet from the road.

All of the build alternatives will require right-of-way takings between 0.026 and 0.131 acres for the Drury-Saunders House (SM-540), a 1.58 acre property. The historic boundary for this c. 1900 Queen Anne House at the northwest corner of MD 5 and MD 245 includes the house footprint, immediate vegetation surrounding the house and sidewalk leading from Hollywood Road (MD 245). The road widening and sidewalk installation for Alternatives 2, 3, 4 and Option 2 will take place outside of the historic resource boundary, except for reducing the sidewalk to MD 245. This impact is not considered to be adverse to the historic resource. Alternative 4 Option 3, however, would widen MD 245 to such an extent it that it would severely reduce the front lawn, impact landscaping within the historic resource boundary, and potentially requiring displacement – adversely impacting the historic resource.

All of the build alternatives will require a minimal right-of-way taking between 0.113 and 0.187 acres along MD 245 for St. Mary's Academy (SM-422). The historic boundary for this property takes in 5 acres with the 1937 Art Deco School Building located approximately 500 feet from MD 247. This minimal taking is not considered to be an adverse impact to the historic resource.

In summary, Alternative 1, No-Build, has no impacts to historic standing structures; Alternative 4 Option 3, Adding Intersection Improvements, has an adverse impact to the Drury-Saunders House (SM-540); and all other alternatives/options have no adverse impact to historic standing structures:

- Alternative 1, No-Build, has no impacts to historic properties.
- Alternative 2, TSM, has no impacts to the Gough Farm and Buena Vista, but has a minimal taking that will not adversely impact the other three properties:
 - 0.078 acre taking from Old SHA Garages (SM-883)
 - 0.028 acre taking from Drury-Saunders House (SM-540)
 - 0.113 acre taking from St. Mary's Academy (SM-422)
- Alternative 3, Five Mile Section, has a minimal taking that will not adversely impact all five historic properties:
 - 0.078 acre taking from Old SHA Garages (SM-883)
 - 0.019 acre taking from Gough Farm (SM-331)
 - 0.079 acre taking from Buena Vista (SM-52)
 - 0.028 acre taking from Drury-Saunders House (SM-540)
 - 0.113 acre taking from St. Mary's Academy (SM-422)
- Alternative 4, Four Lane Divided, has a minimal taking that will not adversely impact all five historic properties:
 - 0.078 acre taking from Old SHA Garages (SM-883)
 - 0.021 acre taking from Gough Farm (SM-331)
 - 0.081 acre taking from Buena Vista (SM-52)
 - 0.028 acre taking from Drury-Saunders House (SM-540)
 - 0.113 acre taking from St. Mary's Academy (SM-422)
- Alternative 4 Option 2, Stream Avoidance, has no impacts to the Gough Farm, but has a minimal taking that will not adversely impact the other four properties:
 - 0.083 acre taking from Old SHA Garages (SM-883)
 - 0.087 acre taking from Buena Vista (SM-52)
 - 0.026 acre taking from Drury-Saunders House (SM-540)
 - 0.113 acre taking from St. Mary's Academy (SM-422)
- Alternative 4 Option 3, Additional Intersection Improvements, has a minimal taking that will not adversely impact four of the historic properties, but will adversely impact the Drury-Saunders House:
 - 0.078 acre taking from Old SHA Garages (SM-883)
 - 0.021 acre taking from Gough Farm (SM-331)
 - 0.081 acre taking from Buena Vista (SM-52)
 - 0.131 acre taking from Drury-Saunders House (SM-540)
 - 0.187 acre taking from St. Mary's Academy (SM-422)
- Alternative 4 Option 4, Shopping Center Modified Access, involves modifications to a specific location that does not have any additional impacts to historic properties. The impacts of this option are the same as Alternative 4.

Mr. J. Rodney Little
MD 5 from MD 243 to MD 245
Page Six

Detailed 50 foot scale plans are provided showing the impact of each option to the five identified historic structures (Attachment 4). Since Alternative 4 Option 3 will adversely impact one of the identified historic properties, the overall project has an adverse impact to historic standing structures.

Archeology: SHA Archeologists Gregory Katz and Carol Ebright previously assessed the survey area as having high prehistoric and historic archeological potential, as noted in prior correspondence dated January 7, 2008 and July 16, 2008.

Prior archeological investigations undertaken for this project include remote sensing and archival studies of St. Paul's Methodist Cemetery. The portion of the cemetery within the project area contains marked and unmarked graves believed to date to the 20th century. Your office concurred with SHA on August 14, 2008 that that the affected portions of this resource would not be considered an archeological site and that the graveyard would be treated under Maryland cemetery laws.

SHA contracted with R. Christopher Goodwin and Associates to conduct Phase I survey in other potentially intact portions of the project area. Phase II investigations were conducted in a portion of the Rose Hill Site (18ST641) located on the "Great Lawn" of the historic St. Mary's Academy (SM-422) that abuts MD 245 at the MD 5 intersection. Enclosed for your review and comment is one copy of the revised draft report *Phase I Archeological Investigations along Portions of MD 5 from MD 243 to MD 245, and Phase II Evaluation of Area I at Site 18ST641, St. Mary's County, Maryland* by Kathleen M. Child et al. (Attachment 5).

Phase I investigations located three archeological sites. Site 18ST824 is a low density prehistoric and historic artifact scatter. Site 18ST825 is the archeological component associated with two early 20th century tenant house ruins previously assigned MIHP numbers SM-810 and SM-811. Site 18ST827 is the site of a recently demolished early 20th century house. SHA agrees with the consultant that the portions of these resources within the project area lack sufficient integrity and information potential to be considered eligible for NRHP listing. No further archeological work is recommended at sites 18ST824, 18ST825, or 18ST827 for this project.

Rose Hill (18ST641) was previously examined by Myers, et al. (1995) during a Phase I survey of the St. Mary's Campus of the Charles County Community College now located on the property. Area I of this resource was believed to contain buried surfaces potentially relating to earlier occupations dating to the 1754-1770 and 1821-1841 periods, and further work was recommended. Phase II investigations of Area I by Goodwin and Associates were not able to confirm the presence of these occupations and concluded that

Mr. J. Rodney Little
MD 5 from MD 243 to MD 245
Page Seven

artifact density and distribution reflected random field scatter. SHA agrees with the consultant that Area A of 18ST641 does not meet any of the NHRP criteria of significance, and is not eligible for listing. No further archeological work is recommended at 18ST641 for this project.

In summary, no archeological resources eligible for NRHP listing will be impacted by the MD 5 project. DOE forms for these sites were previously transmitted to MHT electronically. No further archeological investigations are warranted.

Review Request

Please examine the attached plans, photographs, reports and Eligibility and Effects Table (Attachment 6). We request your concurrence by June 30, 2009 that there would be adverse effects on the Drury-Saunders House (SM-540), by the widening of MD 5 from MD 243 to MD 245. Based on your concurrence with our determination of no adverse effect and consideration of the views of any consulting parties participating in the Section 106 consultation, SHA intends to request that the Federal Highway Administration make a de minimis impact finding for the minor Section 4(f) use of the Old SHA Garages (SM-833), Old Gough Farm (SM-331), Buena Vista (SM-52) and St. Mary's Academy (SM-422). By carbon copy, we invite the St. Mary's County Department of Land Use and Growth Management and the St. Mary's County Historic Preservation Commission to provide comments and participate in the Section 106 process. Pursuant to the requirements of the implementing regulations found at 36 CFR Part 800, SHA seeks their assistance in identifying historic preservation issues as they relate to this specific project (see 36 CFR 800.2 (c) (3) and (5), and 800.3 (f) for information regarding the identification and participation of consulting parties, and 800.4, and 800.5 regarding the identification of historic properties and assessment of effects). For additional information regarding the Section 106 regulations, see the Advisory Council on Historic Preservation's website, www.achp.gov, or contact the Maryland State Highway Administration or the Maryland Historical Trust. If no response is received by June 30, 2009 we will assume that these offices decline to participate. Please call Fred Shoken at 410-545-5793 (or via email at fshoken@sha.state.md.us) with questions regarding standing structures for this project. Ms. Carol A. Ebright may be reached at (410) 545-2897 (or via email at cebright@sha.state.md.us) with concerns regarding archeology.

Mr. J. Rodney Little
MD 5 from MD 243 to MD 245
Page Eight

Very truly yours,



Julie M. Schablitsky
Assistant Division Chief
Environmental Planning Division

- Attachments:
- 1) Project Plans
 - 2) APE Map
 - 3) Condition Photographs
 - 4) Phase I-II Archeology Report
 - 5) Detailed Plans
 - 6) Eligibility and Effects Table

cc: Mr. Jeremy Beck, SHA-EPLD
Mr. Denis Canavan, St. Mary's County Department of Land Use and
Growth Management, (w/Attachments)
Ms. Carol A. Ebright, SHA-EPLD (w/Attachments)
Ms. Elizabeth Habic, SHA-EPLD
Dr. Julie M. Schablitsky, SHA-EPLD
Mr. Fred Shoken, SHA-EPLD
Ms. Teresa Wilson, St. Mary's County Historic Preservation Commission,
(w/Attachments)

**Concurrence with the MD State Highway Administration's
Determination(s) of Eligibility and/or Effects**

Project Number: SM352A11

MHT Log No. _____

Project Name: MD 5 from MD 243 to MD 245

County: St. Mary's

Letter Date: May 27, 2009

The Maryland Historical Trust has reviewed the documentation attached to the referenced letter and concurs with the MD State Highway Administration's determinations as follows:

Eligibility (as noted in the Eligibility Table [Attachment 6]):

- Concur
- Do Not Concur

Effect (as noted in the Effects Table [Attachment 6]):

- No Properties Affected
- No Adverse Effect
- Conditioned upon the following action(s) (see comments below)
- Adverse Effect

Agreement with FHWA's Section 4(f) criteria of temporary use (as detailed in the referenced letter, if applicable):

- Agree

Agreement with FHWA's de minimis impact finding (as detailed in the referenced letter, if applicable):

- Agree

Comments:

By: _____

MD State Historic Preservation Office/
Maryland Historical Trust

_____ Date

Return by U.S. Mail or Facsimile to:
Dr. Julie M. Schablitsky, Assistant Division Chief, Environmental Planning Division,
MD State Highway Administration, P.O. Box 717, Baltimore, MD 21203-0717
Telephone: 410-545-8870 and Facsimile: 410-209-5046

cc: Dr. Julie M. Schablitsky, SHA

Concurrence with the MD State Highway Administration's
Determination(s) of Eligibility and/or Effects

CONTINUATION SHEET #1
Maryland Historical Trust Comments

Project Number: SM352A11
Project Name: MD 5 from MD 234 to MD 245

MHT Log No. 200800079

The Maryland Historical Trust (Trust) provides the following comments:

Archeology:

Thank you for providing the Trust with a copy of the following revised draft report, prepared for SHA by R. Christopher Goodwin & Associates, Inc.: *Phase I Archeological Investigations Along Portions of MD 5 from MD 243 to MD 245, and Phase II Evaluation of Area 1 at Site 18ST641, St. Mary's County, Maryland* (Child et al. 2008). The investigations identified and examined four archeological sites within the project area. Based on the documentation presented in the report, the Trust concurs with SHA's determination that the following four sites do not meet the criteria for eligibility in the National Register of Historic Places and further investigation of these sites is not warranted:

- 18ST824
- 18ST825
- 18ST827
- Area 1 – 18ST~~xxx~~⁸²⁹ (SHA needs to obtain a new site number for this resource)

The report generally meets the requirements of the Trust's *Standards and Guidelines for Archeological Investigations in Maryland* (Shaffer and Cole 1994). We ask SHA to have the consultant address the following issues in the preparation of the final document:

- ✓ Figure 9 should illustrate and label the locations of the inventoried sites examined by the study.
- ✓ Due to an error in the Trust's GIS system, the consultant incorrectly assumed that Area 1 was a part of inventoried site 18ST641. In fact, Area 1 is not included within the site boundary as documented on the inventory form for 18ST641. We apologize for this mistake and its repercussions for the current survey. After discussing the issue with Jennifer Cosham, we decided that the most appropriate way to handle this situation is to assign a new inventory number to the resource examined in Area 1 and to treat it as a separate resource distinct from 18ST641.
- ✓ As noted above, the consultant should complete a site inventory form for Area 1, obtain a number from the Trust, and provide the site inventory form to Jennifer Cosham for entry in the Inventory records.
- ✓ The consultant should revise the report title, text and figures to reference the new site number for Area 1 and delete mention of Area 1 as a component of 18ST641.
- ✓ SHA should prepare a new DOE form for the Area 1 site and provide an electronic copy to the Trust for appending to the DOE database. The Trust will delete the DOE form SHA prepared for 18ST641.
- ✓ The Artifact Inventory, Appendix I should include the lot numbers assigned to the materials.

**Concurrence with the MD State Highway Administration's
Determination(s) of Eligibility and/or Effects**

**CONTINUATION SHEET #2
Maryland Historical Trust Comments**

Project Number: SM352A11

MHT Log No. 200800079

Project Name: MD 5 from MD 243 to MD 245

Historic Built Environment:

Your letter provided the Trust with a description of the project alternatives and an evaluation of effects on the historic built environment. As a result of prior coordination between our offices, five (5) historic properties have been identified within the APE. They include:

- Old SHA Garage (SM-833)
- Gough Farm (SM-331)
- Buena Vista (SM-52)
- Drury-Sanders House (SM-540)
- St. Mary's Academy (SM-422)

Project Effects:

The Trust concurs with SHA that Project No. SM352A11 (MD 5 from MD 243 to MD 245) will adversely affect historic properties. The various alternatives under consideration by SHA will have the following impacts on historic properties:

- Alternative 1 – No Build will not affect historic properties;
- Alternatives 2, 3, 4, Option 2 and Option 4 will have no adverse effect on historic properties;
- Alternative 4 Option 3 will adversely affect historic properties due to the proposed demolition of the Drury-Sanders House.

We encourage SHA to select an alternative that avoids adversely affecting historic properties. We look forward to working with SHA through the project planning process to successfully conclude the Section 106 consultation.

We would like to take this opportunity to acknowledge the excellent mapping SHA prepared and included in its submittal for this project. The detailed plans clearly illustrated the proposed improvements for the various alternatives and the boundaries of the affected historic properties. This project documentation was particularly useful for the Trust to make an informed review of the submittal.

If you have any questions or concerns, please feel free to contact Beth Cole (for Archeology) at bcole@mdp.state.md.us / 410-514-7631 or Tim Tamburrino (for the Historic Built Environment) at ttamburrino@mdp.state.md.us / 410-514-7637.

**ST. MARY'S COUNTY GOVERNMENT
DEPARTMENT OF LAND USE
AND GROWTH MANAGEMENT**

*Denis D. Canavan, Director
Phillip J. Shire, Deputy Director*



Francis Jack Russell, President
Kenneth R. Dement, Commissioner
Lawrence D. Jarboe, Commissioner
Thomas A. Mattingly, Sr., Commissioner
Daniel H. Raley, Commissioner

January 15, 2008

Re: Project No. SM352A11
MD 5 from 243 to MD 245
St. Mary's County, MD
USGS Leonardtown 7.5' Quadrangle

Mr. Bruce Grey
Deputy Director
Office of Planning and
Preliminary Engineering
State Highway Administration
707 North Calvert Street
Baltimore, MD 21202

Dear Mr. Grey:

On behalf of the Department of Land Use and Growth Management and the St. Mary's County Historic Preservation Commission, I am writing to concur with the findings in the *Archival and Remote Sensing Investigations of St. Paul's Methodist Church Cemetery*. We agree with the recommendation for either avoidance of the area identified as containing non-vaulted burials, or further investigation and relocation in consultation with the appropriate regulatory agencies.

Yours truly,

Teresa Wilson
Historic Preservation Planner

cc: Denis Canavan, Planning Director, St. Mary County Department of Land Use and
Growth Management
Harold Willard, Chairman, St. Mary's County Historic Preservation Commission

ST. MARY'S COUNTY GOVERNMENT
DEPARTMENT OF LAND USE
AND GROWTH MANAGEMENT

Derick Berlage, Director

Phillip J. Shire, Deputy Director



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Lawrence D. Jarboe, Commissioner
Thomas A. Mattingly, Sr., Commissioner
Daniel H. Raley, Commissioner

June 30, 2009

Dr. Julie M. Schablitsky, SHA
Assistant Division Chief
Environmental Planning Division
MD State Highway Administration
P. O. Box 717
Baltimore, MD 21202-0717

Re: Project No. SM 352A11
MD 5 from MD 243 to MD 245
USGS *Leonardtown* 7.5' Quadrangle

Dear Dr. Schablitsky,

The Historic Preservation Commission met on June 25th and voted unanimously for Alternative 2, TSM, with no impacts to the Gough Farm and Buena Vista, but a minimal taking that will not adversely impact the other three historic properties.

We thank you for this opportunity to make a recommendation.

Sincerely yours,

Robert Gibbs, Chair
St. Mary's Co. Historic Preservation Commission

cc: Derick Berlage, Director of LUGM
George Erichsen, Director of DPW&T
J. Rodney Little, State Historic Preservation Officer



Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor

State Highway
Administration

John D. Porcari, Secretary
Neil J. Pedersen, Administrator

Maryland Department of Transportation

April 8, 2009

Project No. SM352A11
MD 5: MD 243 to MD 245
Project Planning Study
Saint Mary's County, Maryland

Ms. Christine Wray
Chief Executive Officer
St. Mary's Hospital
25500 Point Lookout Road
P.O. Box 527
Leonardtown, Maryland 20650

Dear Ms. Wray:

The Maryland State Highway Administration (SHA) has initiated a project planning study to improve safety on MD 5 from MD 243 to MD 245 in Leonardtown, Maryland (Attachment 1). The existing configuration of MD 5 is four 11-foot-wide lanes (two lanes in each direction) with minimal or no shoulders and a 4-foot-wide marked separation between northbound and southbound traffic. Currently three "build" alternatives and the "no build" alternative are under consideration (Attachment 2). Alternative 1 (the "no build" alternative) would result in no changes from the existing configuration. Alternative 2 would not change the roadway except to provide spot improvements at the MD 5 intersections with MD 243, Abell/Moakley Streets, and MD 245. Alternative 3 would provide a center 13-foot two-way left-turn lane and Alternative 4 would have an 18-foot landscaped median. The purpose of this letter is to request your input regarding the effects of the proposed alternatives and options on response times for emergency services.

This approximately 1.5 mile stretch of MD 5 currently includes several intersections in addition to the proposed future intersection of MD 5 and Clark's Rest/Tudor Hall near the current Clark's Rest Lane (which would be relocated). Two intersections are currently signalized, and two additional signals are proposed under build Alternatives 3 and 4, but not Alternative 2. The new signals would be located at the intersection of MD 5 and Abell/Moakley Streets and future Clark's Rest/Tudor Hall development intersection. Three Options (Options 2-4) are also under consideration which could be implemented with either Alternative 3 or 4 and include lane shifts to avoid natural resources and/or additional intersection improvements. A typical section (Attachment 3) is included for each Alternative under consideration for your review.

My telephone number/toll-free number is _____

Maryland Relay Service for Impaired Hearing or Speech: 1.800.735.2258 Statewide Toll Free

Street Address: 707 North Calvert Street • Baltimore, Maryland 21202 • Phone: 410.545.0300 • www.marylandroads.com



Ms. Christine Wray
MD 5: MD 243 to MD 245
Page Two

Several changes to access along the MD 5 corridor are proposed by the build alternatives. The existing left turn from the St. Mary's Hospital entrance onto southbound MD 5 would to be prohibited under Alternatives 3 and 4 and all Options. The existing left turns from northbound MD 5 onto Lawrence Avenue, and from Lawrence Avenue onto northbound MD 5 would to be prohibited under all Alternatives and Options. Under Option 4, the existing right turn from MD 243 onto Merchant's Lane and the existing left turn from Merchant's Lane onto MD 243 would be prohibited. However, the roadway geometry would allow emergency vehicles to make all of above movements, if needed. Other individual properties may have their access points consolidated, or have redundant access points eliminated under all Alternates and Options.

All possible impacts that may result from these projects, including any effects to emergency services and response time caused by changes in traffic circulation patterns, access and/or road construction in these areas must be investigated. These impacts may be positive, such as improved response time following the road improvements, or negative, such as delayed or longer response times.

We are asking for your written response to be faxed to SHA at 410-209-5004, or e-mailed to ehabic@sha.state.md.us by May 1, 2009. Should you have any questions or concerns, please feel free to call Ms. Elizabeth Habic at 410-545-8563. Thank you for your cooperation.

Very truly yours,

Donald H. Sparklin
Division Chief
Environmental Planning Division

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

Attachments (3)

cc: Mr. Jeremy Beck, SHA-PPD
Ms. Elizabeth Habic, SHA-EPLD (w/Attachments)
Mr. Ray Morvac, Wallace, Montgomery and Associates, LLP



Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor

State Highway
Administration

John D. Porcari, Secretary
Neil J. Pedersen, Administrator

Maryland Department of Transportation

April 8, 2009

Project No. SM352A11
MD 5: MD 243 to MD 245
Project Planning Study
Saint Mary's County, Maryland

Mr. David Zylak, Director
St. Mary's County Department of Public Safety
23090 Leonard Hall Drive
P.O. Box 653
Leonardtown, Maryland 20650

Dear Mr. Zylak:

The Maryland State Highway Administration (SHA) has initiated a project planning study to improve safety on MD 5 from MD 243 to MD 245 in Leonardtown, Maryland (Attachment 1). The existing configuration of MD 5 is four 11-foot-wide lanes (two lanes in each direction) with minimal or no shoulders and a 4-foot-wide marked separation between northbound and southbound traffic. Currently three "build" alternatives and the "no build" alternative are under consideration (Attachment 2). Alternative 1 (the "no build" alternative) would result in no changes from the existing configuration. Alternative 2 would not change the roadway except to provide spot improvements at the MD 5 intersections with MD 243, Abell/Moakley Streets, and MD 245. Alternative 3 would provide a center 13-foot two-way left-turn lane and Alternative 4 would have an 18-foot landscaped median. The purpose of this letter is to request your input regarding the effects of the proposed alternatives and options on response times for emergency services.

This approximately 1.5 mile stretch of MD 5 currently includes several intersections in addition to the proposed future intersection of MD 5 and Clark's Rest/Tudor Hall near the current Clark's Rest Lane (which would be relocated). Two intersections are currently signalized, and two additional signals are proposed under build Alternatives 3 and 4, but not Alternative 2. The new signals would be located at the intersection of MD 5 and Abell/Moakley Streets and future Clark's Rest/Tudor Hall development intersection. Three Options (Options 2-4) are also under consideration which could be implemented with either Alternative 3 or 4 and include lane shifts to avoid natural resources and/or additional intersection improvements. A typical section (Attachment 3) is included for each Alternative under consideration for your review.

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Mr. David Zylak
MD 5: MD 243 to MD 245
Page Two

Several changes to access along the MD 5 corridor are proposed by the build alternatives. The existing left turn from the St. Mary's Hospital entrance onto southbound MD 5 would to be prohibited under Alternatives 3 and 4 and all Options. The existing left turns from northbound MD 5 onto Lawrence Avenue, and from Lawrence Avenue onto northbound MD 5 would to be prohibited under all Alternatives and Options. Under Option 4, the existing right turn from MD 243 onto Merchant's Lane and the existing left turn from Merchant's Lane onto MD 243 would be prohibited. However, the roadway geometry would allow emergency vehicles to make all of above movements, if needed. Other individual properties may have their access points consolidated, or have redundant access points eliminated under all Alternates and Options.

All possible impacts that may result from these projects, including any effects to emergency services and response time caused by changes in traffic circulation patterns, access and/or road construction in these areas must be investigated. These impacts may be positive, such as improved response time following the road improvements, or negative, such as delayed or longer response times.

We are asking for your written response to be faxed to SHA at 410-209-5004, or e-mailed to ehabic@sha.state.md.us by May 1, 2009. Should you have any questions or concerns, please feel free to call Ms. Elizabeth Habic at 410-545-8563. Thank you for your cooperation.

Very truly yours,

Donald H. Sparklin
Division Chief
Environmental Planning Division

by:

Joseph R. Kresslein
Assistant Division Chief
Environmental Planning Division

Attachments (3)

cc: Mr. Jeremy Beck, SHA-PPD
Ms. Elizabeth Habic, SHA-EPLD (w/Attachments)
Mr. Ray Morvac, Wallace, Montgomery and Associates, LLP



Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

John D. Porcari, *Secretary*
Neil J. Pedersen, *Administrator*

Maryland Department of Transportation

April 8, 2009

Project No. SM352A11
MD 5: MD 243 to MD 245
Project Planning Study
Saint Mary's County, Maryland

Mr. Gerald Gardiner
Chairman of St. Mary's County
Fire Board Association
PO Box 653
Leonardtown, Maryland 20650

Dear Chairman Gardiner:

The Maryland State Highway Administration (SHA) has initiated a project planning study to improve safety on MD 5 from MD 243 to MD 245 in Leonardtown, Maryland (Attachment 1). The existing configuration of MD 5 is four 11-foot-wide lanes (two lanes in each direction) with minimal or no shoulders and a 4-foot-wide marked separation between northbound and southbound traffic. Currently three "build" alternatives and the "no build" alternative are under consideration (Attachment 2). Alternative 1 (the "no build" alternative) would result in no changes from the existing configuration. Alternative 2 would not change the roadway except to provide spot improvements at the MD 5 intersections with MD 243, Abell/Moakley Streets, and MD 245. Alternative 3 would provide a center 13-foot two-way left-turn lane and Alternative 4 would have an 18-foot landscaped median. The purpose of this letter is to request your input regarding the effects of the proposed alternatives and options on response times for emergency services.

This approximately 1.5 mile stretch of MD 5 currently includes several intersections in addition to the proposed future intersection of MD 5 and Clark's Rest/Tudor Hall near the current Clark's Rest Lane (which would be relocated). Two intersections are currently signalized, and two additional signals are proposed under build Alternatives 3 and 4, but not Alternative 2. The new signals would be located at the intersection of MD 5 and Abell/Moakley Streets and future Clark's Rest/Tudor Hall development intersection. Three Options (Options 2-4) are also under consideration which could be implemented with either Alternative 3 or 4 and include lane shifts to avoid natural resources and/or additional intersection improvements. A typical section (Attachment 3) is included for each Alternative under consideration for your review.

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Mr. Gerald Gardiner
MD 5: MD 243 to MD 245
Page Two

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We are asking for your written response to be faxed to SHA at 410-209-5004, or e-mailed to ehabic@sha.state.md.us by May 1, 2009. Should you have any questions or concerns, please feel free to call Ms. Elizabeth Habic at 410-545-8563. Thank you for your cooperation.

Very truly yours,

Donald H. Sparklin
Division Chief
Environmental Planning Division

by:


Joseph R. Kresslein
Assistant Division Chief
Environmental Planning Division

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Mr. Ray Morvac, Wallace, Montgomery and Associates, LLP



Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

State Highway
Administration

John D. Porcari, *Secretary*
Neil J. Pedersen, *Administrator*

Maryland Department of Transportation

April 8, 2009

Project No. SM352A11
MD 5: MD 243 to MD 245
Project Planning Study
Saint Mary's County, Maryland

Lieutenant Michael Thompson
Commander
Maryland State Police
Barrack T Leonardtown
23200 Leonard Hall Drive
Leonardtown, Maryland 20650

Dear Lieutenant Thompson:

The Maryland State Highway Administration (SHA) has initiated a project planning study to improve safety on MD 5 from MD 243 to MD 245 in Leonardtown, Maryland (Attachment 1). The existing configuration of MD 5 is four 11-foot-wide lanes (two lanes in each direction) with minimal or no shoulders and a 4-foot-wide marked separation between northbound and southbound traffic. Currently three "build" alternatives and the "no build" alternative are under consideration (Attachment 2). Alternative 1 (the "no build" alternative) would result in no changes from the existing configuration. Alternative 2 would not change the roadway except to provide spot improvements at the MD 5 intersections with MD 243, Abell/Moakley Streets, and MD 245. Alternative 3 would provide a center 13-foot two-way left-turn lane and Alternative 4 would have an 18-foot landscaped median. The purpose of this letter is to request your input regarding the effects of the proposed alternatives and options on response times for emergency services.

This approximately 1.5 mile stretch of MD 5 currently includes several intersections in addition to the proposed future intersection of MD 5 and Clark's Rest/Tudor Hall near the current Clark's Rest Lane (which would be relocated). Two intersections are currently signalized, and two additional signals are proposed under build Alternatives 3 and 4, but not Alternative 2. The new signals would be located at the intersection of MD 5 and Abell/Moakley Streets and future Clark's Rest/Tudor Hall development intersection. Three Options (Options 2-4) are also under consideration which could be implemented with either Alternative 3 or 4 and include lane shifts to avoid natural resources and/or additional intersection improvements. A typical section (Attachment 3) is included for each Alternative under consideration for your review.

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Lt. Michael Thompson
MD 5: MD 243 to MD 245
Page Two

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We are asking for your written response to be faxed to SHA at 410-209-5004, or e-mailed to ehabic@sha.state.md.us by May 1, 2009. Should you have any questions or concerns, please feel free to call Ms. Elizabeth Habic at 410-545-8563. Thank you for your cooperation.

Very truly yours,

Donald H. Sparklin
Division Chief
Environmental Planning Division

by 
Joseph R. Kresslein
Assistant Division Chief
Environmental Planning Division

Attachments (3)

cc: Mr. Jeremy Beck, SHA-PPD
Ms. Elizabeth Habic, SHA-EPLD (w/Attachments)
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Martin O'Malley, *Governor*
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State Highway
Administration

John D. Porcari, *Secretary*
Neil J. Pedersen, *Administrator*

Maryland Department of Transportation

April 8, 2009

Project No. SM352A11
MD 5: MD 243 to MD 245
Project Planning Study
Saint Mary's County, Maryland

Sheriff Timothy Cameron
St. Mary's County Sheriff's Office
23150 Leonard Hall Drive
Leonardtown, Maryland 20650

Dear Sheriff Cameron:

The Maryland State Highway Administration (SHA) has initiated a project planning study to improve safety on MD 5 from MD 243 to MD 245 in Leonardtown, Maryland (Attachment 1). The existing configuration of MD 5 is four 11-foot-wide lanes (two lanes in each direction) with minimal or no shoulders and a 4-foot-wide marked separation between northbound and southbound traffic. Currently three "build" alternatives and the "no build" alternative are under consideration (Attachment 2). Alternative 1 (the "no build" alternative) would result in no changes from the existing configuration. Alternative 2 would not change the roadway except to provide spot improvements at the MD 5 intersections with MD 243, Abell/Moakley Streets, and MD 245. Alternative 3 would provide a center 13-foot two-way left-turn lane and Alternative 4 would have an 18-foot landscaped median. The purpose of this letter is to request your input regarding the effects of the proposed alternatives and options on response times for emergency services.

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Sheriff Timothy Cameron
MD 5: MD 243 to MD 245
Page Two

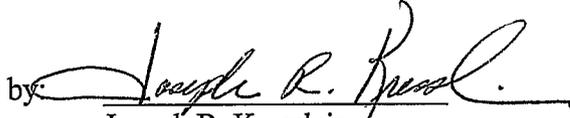
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Very truly yours,

Donald H. Sparklin
Division Chief
Environmental Planning Division

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

Attachments (3)

cc: Mr. Jeremy Beck, SHA-PPD
Ms. Elizabeth Habic, SHA-EPLD (w/Attachments)
Mr. Ray Morvac, Wallace, Montgomery and Associates, LLP

ST. MARY'S COUNTY GOVERNMENT
DEPARTMENT OF PUBLIC SAFETY

David D. Zylak, Director
 301-475-4200, Ext. 2111 / FAX 301-475-4512



Francis Jack Russell, President
 Kenneth R. Dement, Commissioner
 Lawrence D. Jarboe, Commissioner
 Thomas A. Mattingly, Sr., Commissioner
 Daniel H. Raley, Commissioner

EMERGENCY COMMUNICATIONS
Tommy Mattingly Jr, Comm Manager
 301-475-4200, Ext. 2121
 FAX 301-475-4370

EMERGENCY MANAGEMENT
Jaclyn Shaw, Manager
 Main Line: 301-475-4200, Ext. 2124
 FAX 301-475-4924

ANIMAL CONTROL
Antonio J. Malaspina, Sr., Supervisor
 Main Line: 301-475-8018, Ext. 2115
 FAX: 301-475-4924

July 8, 2009

Christina Louloudis
 Environmental Manager
 OPPE-Environmental Planning Division
 MD State Highway Administration
 707 North Calvert Street, Mail Stop C-301
 Baltimore MD 21202

Re: Project No. SM3522A11 / MD 5: MD 243 to MD 245 Project Planning Study
 St. Mary's County

Dear Ms. Louloudis:

Thank you for extending us an opportunity to comment on the Rt. 5 Project in Leonardtown. Any time a road construction project is undertaken that could ultimately reconfigure traffic patterns as well as ingress and egress to side roads and facilities such as St. Mary's Hospital, is very important to Public Safety and the Fire and EMS community.

I met with the leadership of the Leonardtown Volunteer Fire Department and the Leonardtown Volunteer Rescue Squad on June 30, 2009 to discuss Alternatives 1 -- 4 as outlined in your letter of April 8, 2009. The group felt Alternative 1 ("no-build") was not an option as we all realize there is a problem. Alternative 2 (spot improvements at 3 intersections) was not enough to fully address some of the traffic problems. Alternative 4 (an 18' landscaped median) would create potential safety issues for emergency vehicles attempting to utilize crossovers where sight distance may be limited by vegetation height or width. This Alternative may also potentially limit the ability of fire apparatus such as a ladder truck or engine from making a turn to, or from, a side road or when making a U-turn.

Our recommendation to State Highway for this project would be to go with Alternative 3 (a 13' two-way left-turn lane) which would address the issues of this section of Rt. 5 and still allow easy access to side streets for emergency vehicles. Non-emergency traffic could make left turns without fear of being involved in a rear-end crash and there would be no sight distance issues for emergency vehicles.

In addition, the group felt that only one traffic signal should be installed and it should be at the intersection of Abell / Moakley Streets with Rt. 5. Should a second signal be installed at the Clark's Rest / Tudor Hall intersection, those signals should be synchronized. Lastly, the group felt very strongly that a signal at the intersection of Md. Rt. 243 and Merchant's Lane would be a very bad idea. They felt that it would be too close to the signal at Md. Rt. 5 and Md.

Christina Louloudis
MD 5: MD 243 to MD 245 Project Planning Study
Page 2

Rt. 243 and it could potentially further hinder traffic movement should there be a motor vehicle crash at the Rt. 5 and Rt. 243 intersection.

Thank you again for this opportunity and should you have any questions please do not hesitate to contact me at (301) 475-4200 x2111 or email: david.zylak@co.saint-marys.md.us.

Sincerely



David D. Zylak, Director
Department of Public Safety
St. Mary's County, Maryland

Cc: Mr. John Savich, County Administrator
Ms. Shirley Copado, President, Leonardtown Vol. Rescue Squad
Mr. Wayne Miedzinski, President, Leonardtown Vol. Fire Department
Ms. Elizabeth Habic, SHA-EPLD
Mr. Jeremy Beck, SHA-PPD



St. Mary's Hospital

April 30, 2009

Mr. Donald Sparklin
Division Chief
Environmental Planning Division
State Highway Administration
Maryland Department of Transportation
707 North Calvert Street
Baltimore, MD 21202

RE: Project No. SM3512A11
MD 5: MD 243 to MD 245
Project Planning Study
St. Mary's County, Maryland

Dear Mr. Sparklin:

Thank you for the opportunity to provide input into the Project Planning Study for the alternatives for changing Route 5. We are deeply concerned about the proposals and have seen no evidence of thorough analysis and study to date.

With respect to the changes proposed, St. Mary's Hospital proposes that the State Highway Administration study the traffic patterns with respect to the hospital and its future expansion plans, before moving forward with any of the options. Absent additional review, the hospital finds that Alternatives 3 and 4 and all options would be unacceptable in that they block the existing left turn from the hospital entrance onto Southbound MD 5. The county EMS often utilizes this turn to expedite rescue services in the southern part of the county, where a good portion of our patients are from.

While alternative 2 does not affect the southbound exit from the hospital on Route 5, it also does not address potential congestion on MD Route 245. The future hospital construction plans currently include moving the main entrance of the hospital to Route 245. It would be preferable to have the flow of traffic studied on Rt 245 before proceeding with any option.

The hospital welcomes the opportunity to review the options with you further and strongly recommends that the traffic patterns around the hospital be studied more in depth with respect to future expansion plans prior to moving forward.

Kindest regards,

Christine R. Wray
President and Chief Executive Officer



St. Mary's Hospital

May 1, 2009

State Highway Administration
Maryland Department of Transportation
707 North Calvert Street
Baltimore, MD 21202

RE: Project No. SM3512A11
MD 5: MD 243 to MD 245
Project Planning Study
Saint Mary's County, Maryland

Mr. Donald Sparklin
Division Chief
Environmental Planning Division

Dear Mr. Sparklin:

Thank you again for the opportunity to provide input into the Project Planning Study for the alternatives for changing Route 5.

While I have previously forwarded feedback from St. Mary's Hospital on the proposed changes, I would also like to address a needed correction to the schematics of the road system around St. Mary's Hospital. The schematics currently show a road that encircles the front of St. Mary's Hospital, which does not exist. The two ends of Doctor's Crossing Way are actually separated by the hospital's property and parking lot.

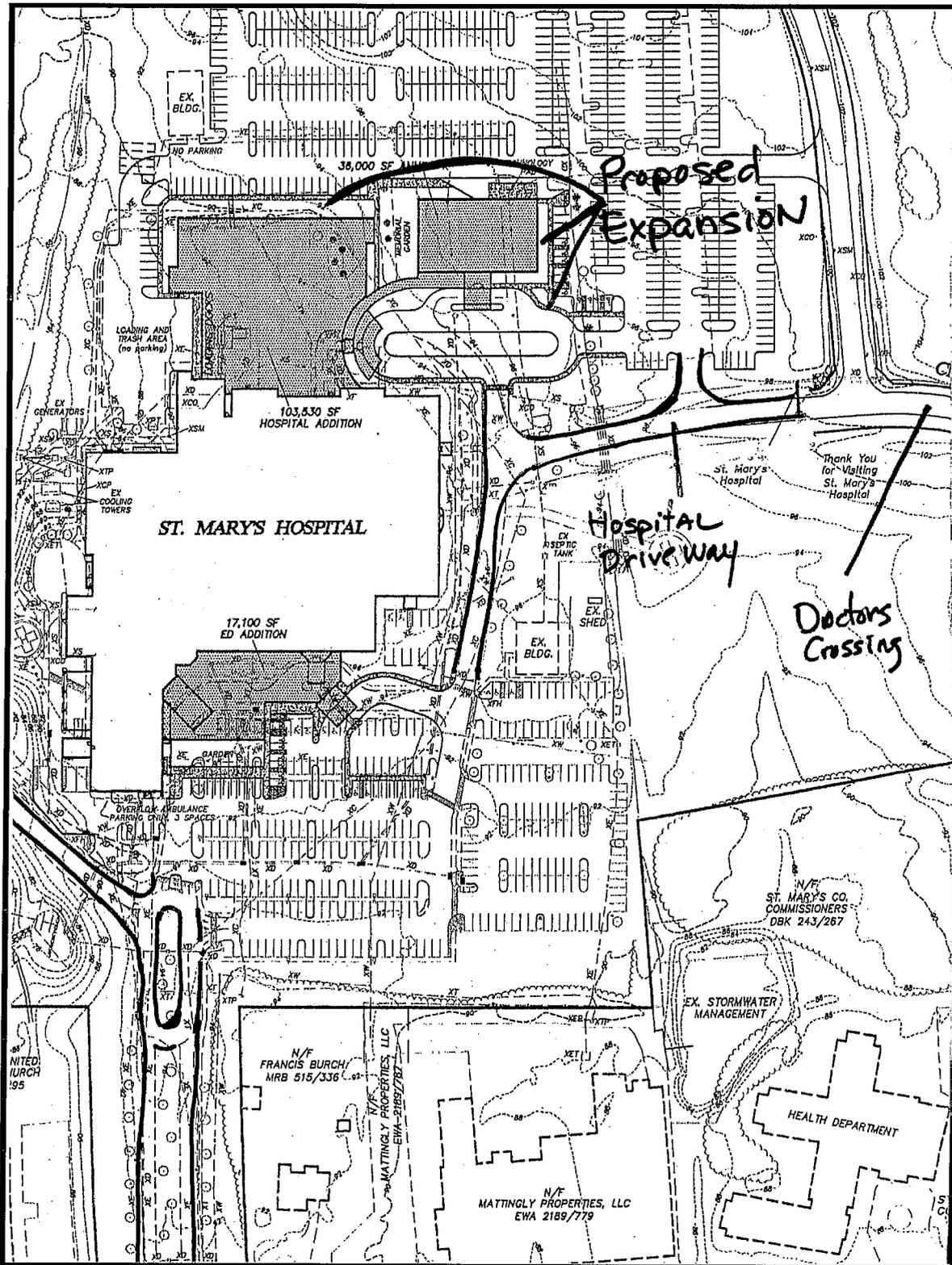
A schematic is enclosed for clarity. I thank you for making note of this correction.

Sincerely,

Christine R. Wray
President and Chief Executive Officer

cln

5 '09MAY11 PM 1:10:00





Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

Beverly K. Swaim-Staley, *Acting Secretary*
Neil J. Pedersen, *Administrator*

MARYLAND DEPARTMENT OF TRANSPORTATION

July 13, 2009

Ms. Christine Wray
President and Chief Executive Officer
St. Mary's Hospital
25500 Point Lookout Road
P.O. Box 527
Leonardtown MD 20650

Dear Ms. Wray:

Thank you for your comments on the MD 5 Project Planning Study. The Maryland State Highway Administration (SHA) relies heavily on public involvement to measure its progress and to ensure that it is meeting citizens' needs. This is a response to your letters dated April 30, 2009 and May 1, 2009.

The SHA started project planning study activities on MD 5 from MD 243 to MD 245 in 2007. The study is following the National Environmental Policy Act (NEPA) process. The SHA has coordinated this study with the Federal Highway Administration, the Town of Leonardtown and the Federal and State environmental review agencies. Before alternatives were developed, traffic counts were taken on MD 5 and on the intersecting roadways. Future roadway network connections were evaluated and traffic projections were made for the year 2030. Engineering design studies were then conducted to meet the projected traffic needs and to assess impacts to environmental resources. An Open House informational meeting was held on December 10, 2008 at the Leonardtown Volunteer Fire Department - Fire Hall. This meeting presented the preliminary alternatives to the public for review and comment. Although this study does not include improvements along MD 245, the intersection of MD 245 with MD 5 has been evaluated for future traffic volumes and operational improvements. Option 3 provides an added level of improvement to this intersection than the basic alternatives, but results in a greater impact to the surrounding properties.

Alternatives 3 and 4 for the MD 5 Leonardtown Project Planning Study would prohibit the general public from making a left turn from the St. Mary's Hospital entrance onto MD 5 southbound, but left turns for emergency vehicles would not be precluded. Signing and pavement striping would direct the general public to make a right turn only. Alternative 3 would have a continuous center turn lane on MD 5 but left turns from the hospital entrance road would be signed for emergency vehicle use only.

My telephone number/toll-free number is _____
Maryland Relay Service for Impaired Hearing or Speech 1.800.735.2258 Statewide Toll Free

Street Address: 707 North Calvert Street • Baltimore, Maryland 21202 • Phone 410.545.0900 • www.marylandroads.com

Alternative 4 proposes a raised median but would include special design elements such as mountable curbing to allow emergency vehicles to make a left turn from the hospital entrance onto MD 5 southbound under emergency circumstances; signing of the left turn would indicate emergency vehicle use only. It is SHA's understanding that other vehicles leaving the hospital heading south bound on MD 5 would have the option of using Moakley Street to turn left onto southbound MD 5 under a potential future signal at this intersection. The Doctors Crossing Way access point to MD 245 can also be used to proceed to MD 5 southbound.

As you noted, the base mapping features shown on the SHA alternatives mapping are based off of aerial photography dated February 2006, and do not reflect the current hospital configuration. The hospital expansion plans have recently been brought to the attention of the SHA Project Planning team by the Town of Leonardtown. If you can provide digital site plans of the hospital expansion or the name of a contact person from the engineering firm that can provide them to us, we will incorporate them into our mapping. If a traffic impact study has been conducted as part of the hospital expansion plan, the Project Planning team would also like to review it.

We anticipate holding a Public Hearing in early 2010 to gather public input and present the detailed alternatives. Following the Hearing, the study team will evaluate all the comments and select a Preferred Alternative for Location Approval from the Federal Highway Administration.

Again, thank you for your interest in the study. We would be happy to meet with you to discuss access issues for the hospital and/or the progress of this study. If you have any additional questions or comments concerning the MD 5 Project Planning Study or if we can be of any further service; please contact Mr. Jeremy Beck, Project Manager, at 410-545-8518, or toll free in Maryland at 1-800 548-5026, and via email at jbeck@sha.state.md.us.

Very truly yours,



Jeremy Beck
Project Manager
Project Planning Division

cc: Ms. Felicia Alexander, Assistant Division Chief, Project Planning Division
Mr. Jeremy Beck, Project Manager, Project Planning Division
Ms. Elizabeth Habic, Environmental Manager, Environmental Planning Division
Ms. Laschelle Miller, Administrator, Town of Leonardtown
Ms. Kimberly Tran, Assistant District Engineering - Traffic, District 5



Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

Beverley K. Swaim-Staley, *Acting Secretary*
Neil J. Pedersen, *Administrator*

MARYLAND DEPARTMENT OF TRANSPORTATION

August 4, 2009

Ms. Christine Wray
President and Chief Executive Officer
St. Mary's Hospital
25500 Point Lookout Rd.
P.O. Box 527
Leonardtwn MD 20650

Dear Ms. Wray:

Attached is the traffic data package for the MD 5 Leonardtown Project Planning Study that was requested at our meeting on July 20, 2009. The package includes specific traffic numbers and level of service data for various intersections and sections of roadway in the project area.

If you have any additional questions or comments concerning the MD 5 Project Planning Study or if we can be of any further service; please contact me at 410-545-8518, or toll free in Maryland at 1-800 548-5026, and via email at jbeck@sha.state.md.us.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Jeremy Beck', is written over a faint, larger version of the signature.

Jeremy Beck
Project Manager
Project Planning Division

cc: Ms. Felicia Alexander, Assistant Division Chief, Project Planning Division
Mr. Joseph Kresslein, Assistant Division Chief, Environmental Planning Division
Ms. Kimberly Tran, Assistant District Engineering - Traffic, District 5
Ms. Elizabeth Habic, Environmental Manager, Project Planning Division
Ms. Laschelle Miller, Administrator, Town of Leonardtown



Martin O'Malley, Governor
Anthony Brown, Lt. Governor

John D. Porcari, Secretary
Neil J. Pedersen, Administrator

MARYLAND DEPARTMENT OF TRANSPORTATION

MEMORANDUM

TO: Mr. Bruce M. Grey
Deputy Director
Office of Planning and
Preliminary Engineering

FROM: Russ Walto
Project Manager
Project Planning Division

Date: March 14, 2007

Subject: Project Number SM352A11
MD 5 from MD 243 to MD 245
Leonardtown, St. Mary's County

RE: March 5, 2007 Leonardtown Developer Coordination Meetings
Meeting Summary

Developer Coordination Meetings for the MD 5 Leonardtown Project Planning Study were held on March 5 in Leonardtown, Maryland. The purpose of the meetings were to inform the project team of the ongoing development activities proposed in the corridor, open communication with the developers, the Town of Leonardtown, and Maryland State Highway Administration (SHA), and to inform the developers of the project planning study and schedule.

Town of Leonardtown Coordination Meeting

The first meeting was held with SHA team members and Laschelle Miller, Leonardtown Administrator. The meeting was held at the Leonardtown Commissioner Offices and began at 9:30am. The purpose of the meeting was to inform the project team of all known development activities within the study area.

Attendees from the project team at the pre-meeting were as follows:

| | | | |
|------------------|--------------------|--------------|--|
| Russell Walto | SHA- PPD | 410-545-8547 | RWalto@sha.state.md.us |
| Ray Moravec | Wallace Montgomery | 410-494-9093 | R_Moravec@WallaceMontgomery.com |
| Frank Coxon | SHA – EAP | 410-545-5582 | FCoxon@sha.state.md.us |
| Laschelle Miller | Town Administrator | 301-475-9791 | Laschelle.Miller2@verizon.net |

My telephone number/toll-free number is _____

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Mr. Bruce M. Grey
Page Two

Russ Walto began the meeting by introducing the project team members and thanking Laschelle for coordinating today's meetings. Russ gave a general update on the status of the MD 5 Leonardtown Project Planning Study and informed Laschelle that the project is just beginning and the initiation ad will be circulated by the end of the month. The current project schedule is to have a Public Informational Meeting this fall with the Alternative Public Workshop in the Spring of 2008. Currently, the project is only funded for Project Planning at this time.

Laschelle then provided a overview and status of the private developments in the corridor, as know at this time by the Town. Ray Moravec with WM&A provided a map showing the proposed developments previously provided by Laschelle to Marty Cohen at SHA, District #5.

The first development was Tudor Hall. This development was previously approved over 10 years ago for a golf course and residential community. The current status of the development is unknown at the time of the meeting. The development included 593 homes and townhomes on approximately 250 acres. The golf course and recreational areas were to be developed by the town and the developer would construct the houses and townhomes. Within the development, a local road extending Fenwick Street from MD 326 (Washington Avenue) to MD 5 is proposed. Engineering plans for the road have been developed and will be sent to SHA from Laschelle.

Laschelle then went over the Clark's Rest proposal from Marrick Properties, Inc. The proposed 324 home/townhouse and limited commercial/office development is located on the north side of MD 5 just west of Moakley Street. A traffic light will be provided at the intersection of Clark's Rest Road and the relocation of Fenwick Street by the developer. In addition, access to the commercial sites along MD 5 will be provided east of the new intersection. This access point will be located directly across MD 5 and coordinated with the new entrance for the McIntosh Run Shopping Center proposed on the south side of MD 5.

McIntosh Run is located on the south side of MD 5 and proposes a mixed use development with a hotel, restaurant, bank, office suites and retail shops. The project has concept approval and has not been submitted to SHA for an access permit at this time.

For the Clark's Rest development, right of way setbacks based off of the feasibility study have been included on the development plan. The existing curb line on the south side of MD 5 is held and all widening is proposed on the north side. A roadway width from face of curb to face of curb of 88 feet is being provided.

The team was also made aware of public pressure to add a traffic signal at either Moakley Street or the hospital entrance. Public preference is for a signal at Moakley Street. Access to Clark's Rest Road will be provided from Moakley as part of the Clark Farm Development.

The redevelopment of the exiting Brenton Market Place located across from Lawrence Avenue is in for review and approval. This includes expansion of the existing building, additional office buildings and a restaurant. A setback for the restaurant pad site has been requested by the town for the future widening of MD 5. SHA has provided no comments at this time.

The Leonard's Grant development is proposed north and east of Clark's Rest with access to MD 245. Access is also provided through the Clark's Rest Development, and no additional access points are identified on MD 5.

The Joe Stone Office Building is proposed just west of the proposed intersection of Clark's Nest and Fenwick Street. The proposed office building will replace the existing residence on the site. No new information is available concerning the status of this development.

The Community Bank of Leonardtown is proposed at the intersection of MD 5 and Lawrence Avenue in the south east quadrant, replacing the existing bank and convenience store. A temporary trailer for the bank has been located on the Benton Market Place property discussed earlier.

Each of the proposed developments was identified on an aerial map prepared by SHA for the meeting. This map will be updated as a living graphic to help track the proposed developments in the study area.

Developer Coordination Meeting

The second meeting coordinating the proposed developments along MD 5 was held at 1:30 pm in the Leonardtown Commissioner Offices. This meeting was scheduled to make the developers aware of the MD 5 Project Planning Study and to get the latest information on the status of the developments.

The following were in attendance for the second meeting:

| | | |
|------------------|---------------------------|--------------|
| Russell Walto | SHA- PPD | 410-545-8547 |
| Ray Moravec | Wallace Montgomery | 410-494-9093 |
| Frank Coxon | SHA – EAP | 410-545-5582 |
| Laschelle Miller | Town Administrator | 301-475-9791 |
| Keith Ulrich | Collison, Oliff & Assoc. | 410-535-3101 |
| Rick Bailey, Jr. | Marrick Properties | 301-855-3828 |
| Wayne M. Davis | W.M.Davis, Inc. | 301-475-2755 |
| Frank Jaklitsch | Marrick Properties | 301-855-3828 |
| Michael Pierce | Loiederman Soltesz Assoc. | 301-769-3500 |

Mr. Bruce M. Grey
Page Four

Laschelle Miller began the meeting thanking everyone for attending. Laschelle then explained that the purpose of the meetings was to make the developers aware of the MD 5 Project Planning Study and to get an update on the status of the developments under consideration.

Russ Walto, SHA Project Manager, introduced the MD 5 Leonardtown Project Planning Study and informed the attendees that an initiation ad will be circulated by the end of the month. The project limits for the MD 5 study are from MD 243 to MD 245. The current project schedule is to have a Public Informational Meeting this Fall with the Alternative Public Workshop in the Spring of 2008. Completion of the Project Planning Study is tentatively scheduled for Winter 2009, which will result in a selected alternative. Currently, the project is only funded for Project Planning at this time.

Updates concerning each of the developments represented were then provided. The following is a summary of the key issues discussed for each development:

Leonard's Grant – New traffic study has been submitted.

Clark's Rest – Plans to be submitted in late Spring with construction anticipated in late Summer/early Fall. Majority of right-of-way for MD 5 is on the Clark's Rest side. The curb line for the east side of the roadway was held and the roadway will be widened based on the typical section from the feasibility study. A copy of the current plan was provided to SHA at the meeting. In addition, the new commercial entrance has been lined up with the proposed entrance for McIntosh Center.

McIntosh Center – Permits to be requested in 30-60 days. Construction is anticipated this Summer.

Brenton Market Place – Proposed restaurant site relocated approximately 34 feet from edge existing curb line to allow for future widening. Construction anticipated next Spring. Permits for the proposed office space are complete. SHA requested a copy of the plan and stated that an access permit will be required and possibly a traffic impact study required. Entrance will need to be upgraded and meet new ADA requirements. Wayne Davis will coordinate with Frank Coxon concerning the plan submittal.

The MD 5 Study Team thanked everyone for their participation at the meeting. This early information will be used for the development of the mapping for the project as well as future traffic projections for the study area.

This meeting summary represents items discussed during the developer coordination meetings. If you have any questions or need additional information, please contact Russell Walto, SHA Project Manager at 410-545-8547 or email at RWalto@sha.state.md.us.

Mr. Bruce M. Grey
Page Five

cc: Mr. Marty Cohn, SHA
Mr. Frank Coxon
Ms. Laschelle Miller
Ms. Heather Murphy, SHA